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Message

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Dr. P. S. Bhadouria

IN THE LOGISTICS SERVICE OF "UZBEKISTAN RAILWAYS" JSC PROBLEMS IN USING DIGITAL TECHNOLOGIES

G'.A.Nizamov[1]

ABSTRACT

This article highlights the shortcomings of specific aspects of the use of digital technologies in the provision of logistics services in Uzbekistan Railways JSC, and shows the relevance of these shortcomings when switching to a digital technology system. In the conditions of the digital economy, many unique modern problems are also arising, and in order to study the solution of these problems, the actions of organizing the work process in the prescribed manner are mentioned.

Keywords: *"Uzbekistan Railways" (O'TY), joint-stock company (JSC), Regional Railway Unitary Enterprise (MTU UK), digital economy, sorting and loading stations, state tax committee (DSQ).*

INTRODUCTION

"Uzbekiston temir yollari" JSC are railway stations, which are involved in the processes of train reception, dispatch, crossing, transportation, cargo reception, delivery, luggage and passenger service, as well as train formation, distribution and technical processes with trains. are individual railroad crossing points that are being upgraded. Railway stations are classified according to the nature of their work:

1. Freight stations - cargo is designed to carry out commercial processes. They are built in large industrial and administrative centers, sea and river ports, bulk loading and unloading areas. Depending on the type and location of cargo being handled, they are divided into general cargo handling stations for handling various cargoes, such as bulk cargo, coal loading, port, etc. General freight stations include many freight stations located at the entrances of industrial enterprises and adjacent to public freight stations.

2. Technical stations are places designed to carry out technical processes with trucks, trains, to organize transportation and ensure road traffic safety. Technical stations include railway stations not intended for passenger and cargo transportation processes. Depending on the technical processes performed with trucks and trains, technical railway stations are divided into:

- **Sorting stations** - intended for mass processing of wagons and formation of trains. They are located at junctions or intersections of railway lines, major transit points. In addition, transit trains are processed in them. There are several dedicated fleets of marshalling stations, the largest fleets of which have automatic marshalling facilities for odd- and even-numbered carriages.
- **Section stations -** designed to process transit freight and passenger trains, form combined and section trains, and perform shunting processes for servicing access roads. The distance between the station stops depends on the change of locomotives and locomotive crews, and usually they are located at a distance of 150-300 km from each other. There are usually 2-3 parks at station stations, wagon maintenance points and locomotive maintenance depots.

[1] Independent researcher at the School of Business and Entrepreneurship

- **Portside Stations -** Used to assemble wagons in seaport service. They carry out wagon transportation, reception and formation of trains at ship ports.

LITERATURE REVIEW

It is noted that cyber security is not ensured, and it is not only the embezzlement of money accounts by hackers, but also the development of mechanisms to combat this risk by the states [1].

In the digital environment, drastic changes in education and innovation create new requirements for computers. In the process, negative learning outcomes are often associated with the use of digital technologies, which risk distracting students from learning. In addition, it is noted that goals and their concentration can be viewed with a decrease. [2].

It was mentioned that blockchain is a special technology that creates platforms for peer-to-peer transactions and is a decentralized information storage device to reflect all transaction data.

The practical application of radio frequency identification technology in the operation of railway cargo is considered in relation to important international projects that may affect the successful implementation of electronic data exchange in international freight transport. The introduction of new and more complex information systems and technologies in the railway sector should systematically eliminate these shortcomings, and thus the strategic understanding should not only increase the quality of information in transport, but also increase the overall competitiveness in the field of railway cargo [3].

A well-known challenge of digitization is that there are enough cybersecurity challenges at the level of businesses, companies, and countries, as well as at the level of personal data. Errors in security systems can lead to mass disclosure of personal information, which threatens the personal safety and well-being of citizens, as well as causing financial losses. In modern reality, it will not be a big problem to organize round-the-clock monitoring of his phone, car movement, video recording of city cameras, transport or payment with a bank card without agreement with the object.

A major challenge in the implementation of digital technologies is corruption in all its forms and at all levels. Empowered digitalization significantly increases the transparency of processes, which makes it difficult to implement "gray" schemes and resists the process of introducing digital transformation. In addition, large-scale digitization can help exclude many working citizens from the usual processes, especially given the low level of education and its focus on labor occupations and the inability of people to adapt to the new reality, which can lead to an increase in unemployment, which can have disastrous consequences. emphasized [4].

The application of the digital economy to the field of transport represents a new direction in contrast to automation and information systems. Moving from the transport sector to the digital economy requires a complete change in transport processes and a new approach to processes. For example, he emphasized the need to implement business processes through internal blockchain and smart-contracts for normal shipping processes[5].

In addition, it is important to manage this process, to manage a joint-stock company, to attract investments to the system, and to follow international standards of management. About this issue from economists: Suyunov D.Kh. "In order to make investments in the activities of companies in the conditions of globalization of countries' economies, the development and implementation of corporate governance

standards that are uniform for all countries, which ensure mutually beneficial development, is considered one of the urgent issues."

"The use of electronic digital signatures and encryption mechanisms in the system requires the use of a cryptographic information protection system, in particular digital signature tools certified in accordance with the requirements of the "Regulation on cryptographic protection of information in the Republic of Uzbekistan" approved by the decision of the President of the Republic of Uzbekistan dated April 3, 2007 No. PQ-614 it is necessary to implement it" states A.T.Kenjabaev in his article [6].

All problems arising from digital transformation cannot be solved due to lack of experience in solving similar problems, weak scientific base, etc. These problems can be divided into the following groups:

- Lack of sufficient powers among managers related to the digital economy and information technologies;
- Information technologies imported from other countries that can be changed (deleted) remotely;
- processing of personal data;
- Lack of effective systems for protecting data transmission channels about the state of management objects, possible data corruption due to technological failures and the actions of intruders;
- The lack of scientific schools that can successfully solve the problems of improving digital transformation is noted [7].

The author divides all the variety of performance indicators into groups reflecting the traffic. In this case, determining the impact of transport development on the economy is as follows:

- Indicators of social impact;
- Indicators of economic impact;
- Indicators of technical impact;
- Indicators related to time may be reflected [8].
- The goal of the logistics process is to control and deliver the right quantity and quality of materials or services to the right place at the right time. In the implementation of the control system, it will be appropriate to introduce the compliance-control system. In this regard, D.Kh. According to Suyunov, "compliance-control" system in companies - this is based on the legal requirements of each country and the rules and standards that may be different in any company, how the company behaves in the service market, adheres to ethical rules and international standards, manages conflicts of interest, treats customers fairly and advises customers refers to issues such as ensuring a fair approach” [9].

RESEARCH METHODOLOGY

By applying this state to the system, it aims to realize the overall system linking and control state. It consists in the comparative study of the level of influence of the human factor in the application of new directions of the digital economy to companies and the identification of their shortcomings. In this process, it is shown not only to identify the deficiency, but also to organize the work process of people in the conditions

of the digital economy in the future. In this regard, proposals were made on approaches mainly through the production of guidelines and methods of retraining of employees.

ANALYSIS AND RESULTS

Decree of the President of the Republic of Uzbekistan dated March 2, 2020 No. PF-5953 "On the state program for the implementation of the strategy of action on the five priority directions of the development of the Republic of Uzbekistan in 2017-2021 in the "Year of development of science, enlightenment and digital economy"" and with the Decision of the Cabinet of Ministers of the Republic of Uzbekistan "On the program for the localization of the production of consumer goods in the domestic and foreign markets in 2020-2021" to further develop and improve the railway network, increase the production capacity of the sector, and meet the needs of the republic's enterprises and residents in the transportation of goods and passengers main directions, approaches and mechanisms are defined.

- Nowadays, due to the introduction of the digital economy into the system, due to the transition to a new direction and work process, new problems and shortcomings are also reflected in this case. Generally speaking, they are:
- It is not possible to switch from one program to another profile during digitization without exiting the program;
- Dependence on the Internet network tool and evaluation by its level of performance;
- Failure to save data on time, as well as observed cases of network freezes;
- Inability to control or control the factors controlled by a person;
- Proportionality of the data entered into the program after the process of storage;
- Inability to enter the process of electronic calculation of some individual technical and technological units;
- The complexity of handwritten editing of teaching and training programs;
- We can list the high level of influence of the human factor.
- We will study the level of influence of the human factor on these processes.
- At first glance, the introduction of the best software and hardware systems to ensure information security in the enterprise solves the problem of information security. But when analyzed by world market experts, no technical means can save people from stupidity and carelessness. The human factor is mainly in the following conditions:
- Technical and software inadequacy;
- That specialists are insufficiently qualified in the use of technical means;
- It is seen that employees do not have enough information.
- In a logistics system, each material system exists in a certain environment, like other systems, and everything outside this system is circular. Every system constantly takes matter, energy and information from its environment to sustain its life, growth, development and improvement, and a

material system cannot exist outside of its environment. He cannot remain indifferent to environmental influences.

The environment of logistics systems is called "macrologistic environment". In addition to the external environment, there is also the internal environment of the system, which consists of high-level subsystems and elements of the system, interaction processes between them, and interaction with the environment. The internal environment of the logistics system is called "micrologistic environment".

There is an interaction between the external and internal environment, and the environment creates systems, and each system forms its internal environment. It can only develop together with the external environment.

Table 1 : Evaluation of cost reductions in the implementation of RFID technology[1]

Indicators	barcode system, rub.	RFID system, rub.
Average cost of one error	1200	1200
Process in one month, pcs	110 000	110 000
The amount that the company loses due to errors in a month	0,54	0,04
Loss per month, rub.	712 800	52 800
Equipment to be lowered per day, ta	15	15
Raw materials to be unloaded per day, pcs	150	150
Time of receiving one technique, minutes	30	2
Inventory time of one technique, minutes	30	2
Time to unload one technique, minutes	30	2
Hourly wage of the worker, rub.	900	900
Fee for working with one technique, rub.	1 350	90
The cost of working with the equipment for one month, rub.	607 500	40 500
Price of marking one tag, rub./item	2	30
Marking price per month	9 000	80 000
Marking price per year	108 000	960 000
Cost per year	15 951 600	10 659 600
One year price difference	5 292 000	

[1] Indicators for evaluating cost reductions in the implementation of RFID technology.

The internal environment of economic systems is a relative concept and largely depends on the adopted management system. External economic links of the business system become internal links of the system. This includes a specific object.

It is very difficult to determine what is the external and internal environment of the logistics system, because it is essentially a combination of a number of natural (people, nature, materials) and artificial (buildings, facilities, machines, mechanisms) subsystems. The types of interaction depend on the system's goal. Such goals in the logistics system can create a clear organizational structure and the process of managing material flows.

The main and unifying cause of these problems is insufficiently developed data. In order to overcome these problems, the logistics digitization project was developed based on the RFID technology in Table 1.

The automation in question increases logistics transparency and control. These processes optimize the operation of transport and warehouses. This means downtime leads to reduction and errors, increases labor productivity and reduces costs.

In a broad sense, the concept of logistics covers all processes that serve to overcome temporal and spatial distances in systems, as well as control and regulate related processes. The experience of using logistics approaches in the activities of enterprises has shown that they can significantly reduce product stocks in production, delivery and sale, reduce production costs, and ensure full satisfaction of the need for the quality of goods and services.

It has been studied how important the influence of the human factor is, and we can say that it is necessary to approach re-skilling processes or develop special guidelines in the process of training people or recruiting them to work.

There are opportunities to train people and employees by developing separate guidelines, and these guidelines provide an opportunity to bring the entire company's work process to a new direction and to the level of using the digital economy through a single specialist.

CONCLUSIONS AND SUGGESTIONS

As can be seen from the above, the methods of introducing the digital economy are being implemented on a large scale in various countries. In addition to the implementation of these processes, there is also a demand for the introduction of new types of technological devices, and attention is paid to the formation of an electronic system in the implementation of these works. In order to introduce the digital economy system in logistics, first of all, it is necessary to consider which directions it will affect and what processes we can implement in order to implement this situation. For this, it is necessary to study the process up to the point of departure, studying the level of interdependence, and bring the problems or factors affecting it to the optimal level. The level of optimization should serve to increase efficiency compared to the current work process. In the review of literature, the opinions of a certain direction emphasized by each author are studied, methods and opinions of using new types of technologies in the digital economy are presented. Having studied the analysis of these points, we can emphasize that the transition to computer systems and electronic devices, their use, is the basis of the digitization situation. Taking this into account, and in some places where the railway system can be moved from paper documents to a digital economy, the need to introduce the use of technological factors may become important. For cash circulation systems in stations, the process of receiving and sending goods can be greatly simplified. At the same time, taking into account that the

processes in the logistics system are related to each other, it is necessary to see the degree of dependence of the introduced technologies on each system and to learn that new types of problems do not arise when working with these processes. It is one of the most important things that we do not forget about the implementation of the personnel training system, as well as taking into account the programming resources, as each software management shows its impact on the personnel system. In this regard, it may be necessary to study the opinions of experts.

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FOREIGN EXPERIENCE IN THE DEVELOPMENT OF THE TOURISM SECTOR AND IMPROVEMENT OF QUALITY IMPROVEMENT MECHANISMS

Pardaev R.I. [1]

ABSTRACT

This article is dedicated to improving the tourism industry and improving the quality of tourism services in the Republic of Uzbekistan. The higher the quality of tourism services, the more tourists will be interested in using existing tourism services.

Keywords-*Tourism, Services, Production, Industry, Construction, Gross Domestic Product, Reproduction, Investment, Absolute Rent, Capital.*

I. INTRODUCTION

In the conditions of building of the new Uzbekistan, a lot of attention is being paid to the rapid development of the tourism sector as one of the strategic sectors of the economy. In particular, the President of the Republic of Uzbekistan, Sh. Mirziyoyev, said, "Tourism means investment, export, new jobs and poverty reduction. Therefore, in every region, it is necessary to pay serious attention to this area and attract more tourists"[1], indicating the need to pay attention to the tourism sector as one of the priority directions.

Also, in Uzbekistan, "by 2026, increase the number of local tourists from 12 million, increase the number of foreign tourists visiting the republic to 9 million, and double the number of people employed in tourism to 520,000" [2] set as a goal. Therefore, based on the rapid development of the field of tourism services in the country, the issues of increasing the employment of the population and strengthening the opportunities to create new jobs are considered to be important tasks of today. Became one of his complaints. In the conditions of today's development of the digital economy, most of the countries of the world consider the tourism sector as an important economic sector that solves the problem of unemployment and poverty in the country.

II. LITERATURE REVIEW

The following scholars have considered foreign experience in the development of the tourism sector and improvement of quality improvement mechanisms in their research: Druzhinina V.V.[3],Lukyanova K.K.[4], Tulenkov M.V.[5], Ibragimov N.S.[6].

Scientific-theoretical aspects of training qualified personnel for the field of tourism in world practice, some issues of finding scientific solutions to a number of problems related to the employment of qualified personnel have been studied by many foreign scientists.

[1] Doctoral student of Samarkand State University

However, such issues as development of the sector in exchange for the training of qualified personnel in the services provided in the field of tourism, adaptation of national tourist products to the world market of tourist services, introduction of innovations in the tourism network have not been sufficiently studied. Among the foreign scientists, V.V.Druzhinina conducted research on the labor market of foreign countries regarding the employment of qualified personnel and their problems [3].

M.V. Tulenkov researched the organizational and management issues of population employment, management and regulation in the field of tourism in the German state [5]. One of our local scientists, N.S. Ibragimov, qualified personnel (as a guide) based on the general conceptual model of the competitiveness of the tourism region and the theory of the hierarchical typology of tourism regions, mono, mini, micro, meta, meso, macro, mega scale and level, as well as the 7M conceptual model have proven their place in development [6].

III. RESEARCH METHODOLOGY

The method of comparative analysis was used on the basis of the data obtained through the study and analysis of scientific research carried out in Uzbekistan and abroad, for the purpose of in-depth analysis of problems, development of scientifically based conclusions and recommendations.

IV. ANALYSIS AND RESULTS

Due to the rapid growth of the tourist flow in the world, the field of tourism services has become one of the promising directions of increasing the income of the population. In the conditions of today's innovative economy, most of the countries of the world consider tourism services as an important economic sector that solves the problem of unemployment in the country.

The solution of the quality problem now has a common effect on all countries of the world, including economically developed countries. For example, in the Federal Republic of Germany, one of the countries with a developed economy, there was and still is a problem of quality improvement. Therefore, during our research, we tried to study the experience of economically powerful countries aimed at improving quality in the country.

Today, there are four main models of foreign experience and state policy aimed at improving quality in the field of production and service, as well as tourism services: Swedish, European, American and Japanese models[1].

The American method of improving quality in the field of tourism services of the country is based on the system of encouraging entrepreneurship, enriching the most active part of the population. This model is characterized by the decentralization of the labor market and the social sphere, the employer's high level of control over the employee and other qualities arising from the demand for quality service. The specific features of this model are as follows:

- Absolute dominance of private property;
- Legal protection of the maximum freedom of market subjects;

[1]Druzhinina, V.V. Ensuring the balance of the local labor market: foreign experience / V.V. Druzhinina // Scientific Bulletin of Kherson State University. – 2014. – No. 6. – P. 124–128.

• Narrowing the scope of state regulation of quality criteria by conducting macroeconomic policy.

Thus, quality improvement contributes to the increase in the standard of living of the population of this country. However, the stratification between the rich and the poor in the country is increasing, and the difference between their incomes is widening. As a result, the level of stratification in society increases.

Japan's model of quality improvement is fundamentally different from other models. It is characterized by a number of unique features:

1. Lifetime employment system;

The system of lifelong employment means that the employee will provide quality service and work in one enterprise throughout his life and gradually rise in the ranks based on the requirements of quality criteria. At the same time, regardless of his education, an employee starts his position from a lower position and is guaranteed not to stay in one place for more than 2-3 years.

2. Paying for labor and its quality criteria;

In Japan, there are no fixed wage rates or strict classifications for business service entities. The payment system for providing quality services in the form of wages is based on the following factors:

• Salary depends on length of service;

• Dependence of the salary on the results of the enterprise's activity;

• Salary depends on the quality results of the employee's personal work;

• Continuous motivation of quality service workforce.

The main incentives include high wages, regular bonus payments, allowances, etc. In addition, for example, there are psychological incentives that are paid twice a year based on the financial results of the tourist enterprise. Among these are the method of "congratulating the employee on his birthday", the method of "open conversations at service points", and the method of "making an offer".

In our opinion, in the conditions of high unemployment in the field of tourism in our country (unemployment in the field of tourism is 70 percent), this model serves to prevent seasonal unemployment in our country and effectively affects the quality indicators of the employee.

Macroeconomic indicators of the country of Sweden are characterized, first of all, by the selected model of economic development. The "Scandinavian" or "Swedish" model of improving quality improvement mechanisms appeared in the 1960s and was aimed at ensuring price stability, reducing income, and supporting investments by implementing restrictive economic policies. The main goal of Modyel is to provide the population with full employment for a long time and reduce their income. This ensures the operation of the decentralized market system and the reduction of the state's intervention in the economy.

Today, Shvyetsiya implements an active labor market policy by retraining employees in order to improve the quality of service. As a result, the main part of the costs of the labor market policy in the country is returned to the state in the form of taxes and social insurance contributions. In other words, the reserve promotes the policy of retraining employees and returning them to work, in particular, placing them in vacant jobs on the basis of state subsidies. Thus, the Swedish model is based on the following 3 basic principles:

1. Achieving full employment of the working-age population;

2. Providing social guarantees to the population;

3. Providing affordable opportunities to achieve well-being;

The Swedish experience of ensuring employment of the population shows that a strong and well-organized labor market policy is an effective method of high quality. In our opinion, a strong social policy that affects the quality of the employee's service is reflected in the Swedish model.

European countries are also distinguished by their unique approach to improving the mechanisms of improving the quality of employee service in the field of tourism. For example, France and Germany have labor laws that strictly regulate the labor relations between the employee and the employer in order to ensure the quality of the employee's service.

At the same time, we believe that the main directions of the mechanisms for improving the quality of the employee's service in the field of the labor market in European countries are as follows:

• A social mechanism has been formed to increase the quality of the employee's service, for example, firstly, to encourage the early entry of young people into the labor market, as well as to increase the length of active working life by providing employment to older people;

Secondly, by changing the social insurance system (unemployment insurance), maintaining the inert skills of the unemployed employee and encouraging his offer to the labor market;

Therefore, the mechanisms of this European model of increasing the quality of service of the employee in European countries are mainly the result of the concept aimed at guaranteeing the employment of representatives of social strata and thereby ensuring the maintenance of high quality indicators of the employee's qualification.

In our opinion, the mechanisms of these models of improving the service quality of the employee in European countries have their own characteristics and are perfect and suitable for their region. However, among these, the European model can be considered as the most effective model that affects all sectors of the economy, including the tourism industry, in the conditions of Uzbekistan. The reason is that the policy of the President of the Republic of Uzbekistan, Sh.M. Mirziyoyev, on the development of the tourism sector, is in line with the content of this model. That is, today, as indicated in the state strategy, during the modernization of enterprises, in order to ensure the quality of the employee's work, for example, it is aimed to provide benefits and support to enterprises that provide employment to young personnel.

From this point of view, it is not an exaggeration to say that in the course of research, the state of improvement of the mechanisms of development and quality improvement of services in the field of tourism in the Federal Republic of Germany (FRG), one of the countries of the European Union, the role of tourism services in ensuring quality, and the tourism services of the "European Model" We studied the influence of economic, social, organizational and legal mechanisms in the field.

In the Federal Republic of Germany, tourism services are considered one of the most important sectors of the economy. According to the official data of the Federal Statistical Office of Germany, the gross

domestic product of the country at the beginning of 2023 will be 3570.6 billion. euro, this indicator shows a 3.4% increase compared to 2019[1].

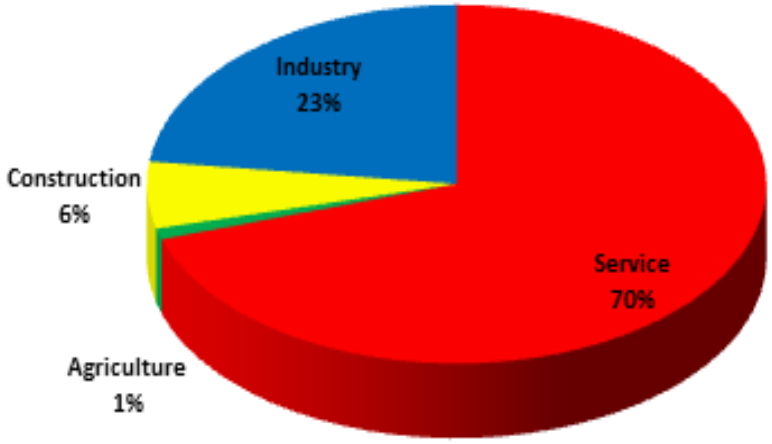

Figure 1. Share of fields in German GDP.

The data in Figure 1 show that the largest share of the GDP of the GFR falls in the service sector (70%), while the share of the tourism services sector is about 25%[2].

At the same time, the field of tourism services in the GFR is recognized as one of the industries with a high level of employment. According to the data of the Federal Statistical Office of Germany, at the beginning of 2023 alone, a total of 3.1 million people worked in hotels, tour operators, travel agencies and catering establishments, which is 9.0% of the country's population. If we take into account the multiplier effect, it turns out that this indicator is 12%.

Studies have shown that the employment rate of the tourism sector in Germany has shown positive trends over the last 5 years, but there are still a number of problems that have not yet been resolved. One such problem is staff turnover. That is, more than 50 percent of those employed in the tourism sector change their field of activity after 2 years. Among the factors determining personnel turnover, the following can be included:

• Relatively low level of employment in the service sector, particularly in the field of tourism services;

• Few or limited opportunities for high-speed development of the social sphere;

• Due to the dominance of enterprises with a small number of employees in the market, the number of managerial positions with high salaries is reduced;

• Seasonal changes in tourist employment due to the seasonality of tourist flows;

[1]Germaniya Federal statistik idorasining rasmiy sayti. https://www.destatis.de (murojaat qilingan sana 14.04.2023 yil, soat 23:05)
[2]The official website of the German Federal Statistical Office. https://www.destatis.de (accessed 14.04.2023, 23:05).

• The need for geographic mobility of those employed in tourism (due to the seasonality of employment, the need to master foreign languages, the need to learn foreign cultures, etc.).

Studies have shown that the catering sector offers as many jobs as Germany today. In this case, the catering establishments of the country can be divided into 3 main groups:

• General catering establishments focused mainly on the income from gastronomy;

• Enterprises focused mainly on revenues from beverages;

• Enterprises focused mainly on income from food products[1];

For information, it is stated that in 2022, 663 thousand people will be employed in catering enterprises focused on income from gastronomy, 107 thousand people will be employed in enterprises focused on income from beverages, and 700 thousand people will be employed in enterprises focused on income from food products. we want to kid.

According to the analytical data of the German Ministry of Economy and Technology, the indicators of the hotel market in Germany are growing. Also, due to the increasing number of business trips in Europe, the market growth rate is predicted in the future. However, due to economic instability, the same growth rates are not observed in all European countries. However, currently the European Union

The hotel sector is actively developing in the countries with the strongest economy. Undoubtedly, one such country is Germany.

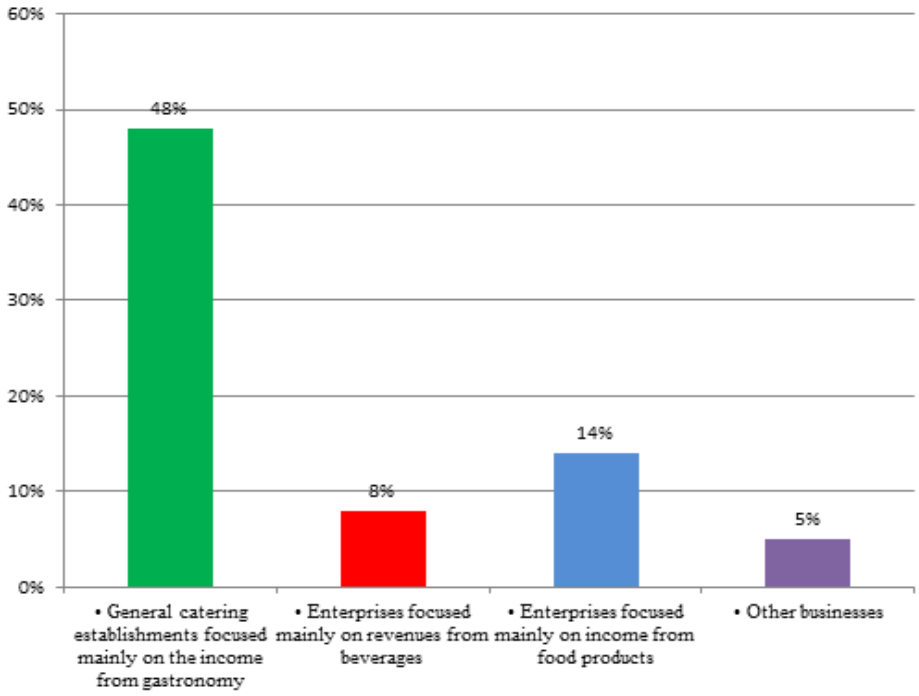

Figure 2. Income from hotel and restaurant industry in GFR in 2022 (percentage).

[1]Official website of the Federal Employment Agency. http://statistik.arbeitsagentur.de (accessed 17.04.2023, 20:48).

According to the data of Figure 2, in 2022, the income index in the field of hotel and restaurant work will be 48% in gastronomic catering enterprises, 8% in enterprises engaged in the sale of beverages, 8% in the enterprises engaged in the sale of food products 14% in enterprises and 4% in other enterprises. We believe that the provision of such a positive indicator in the field of hotel and restaurant work depends on the qualifications of their staff, the quality of the tourist service provided to tourists, and the performance indicators and potential.

Therefore, during the research, we found it appropriate to study the personnel training system in the country along with the analysis of the quality of tourism services in Germany. Taking a deeper approach to the problem, when we studied the data of the German Chamber of Commerce and Industry on vocational training in the field of tourism in 2022, in the country there are more than 57 thousand in the segment of studying food technologies and establishing a restaurant business, and 40 thousand in the hotel business. a relative is trained.

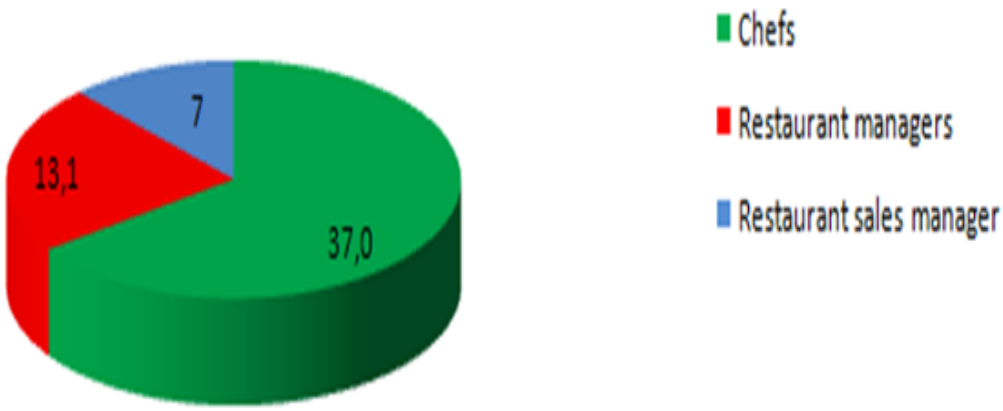

Figure 3. The composition of the vocational training system in the field of restaurant business in the GFR in 2022, thousand people.

According to the data of Figure 3, at the beginning of 2023, cooks accounted for about 65% (37 thousand), restaurant managers for about 23% (13.1 thousand), and restaurant sales managers for about 12%. (6.9 thousand).

Based on the results and analysis of the foreign experience studied above in terms of improving the quality of tourism services, we can conclude the following:

• Tourism is one of the most promising areas of social and economic development of the country in Germany. Despite the existence of objective and subjective problems in its development, the concentration of improving the quality of tourist services in this area is increasing year by year.

• In Germany, the structure of mechanisms for improving the quality of tourist services in the field of tourism is the effective activity of the structure and elements of vocational education in tourism.

In order to ensure high quality in the field of tourism services in the country, the mechanism of training and retraining of high and medium specialists is well established. Admissions to higher education institutions in the country are determined based on the real needs of economic entities. As a result, this specialist's

graduation from the educational institution and subsequent employment is the responsibility of the entity running the same economy. This, in turn, serves to prevent and reduce the problem of lack of personnel in the field of tourism in the country.

The advanced experience of countries with developed tourism in the world shows that tourism is one of the synergistic and effective ways of increasing the income of the country's population today. Its rapid development is considered one of the new factors of earning. Therefore, it is necessary for the government of Uzbekistan to recognize the issues of improving the quality of tourist services in the field of tourism services as an economic sector with strong potential. In order to achieve a positive result from the implementation of these tasks, it is important to develop an innovative strategy of tourism enterprises in the country, to optimize investment support, to study the experience of foreign countries, to determine the current and future needs of personnel, and to take into account their quantity and quality indicators.

In our opinion, it is appropriate to take the "European model" as a model for improving the mechanisms of improving the quality of tourism services in the conditions of New Uzbekistan. The reason is that this model is very compatible with the current state policy on the development of the tourism industry in Uzbekistan, as well as with the country's socio-economic development strategy. Therefore, based on the specific features of this model, we recommend to consider the following areas as priorities in improving the mechanisms of improving the quality of tourism services in Uzbekistan and bringing their effectiveness to a new level:

1. Vocational training and retraining of persons capable of working in the labor market of Uzbekistan in the field of tourism;
2. To send young people with secondary specialization to exchange experience in foreign countries and motivate them to offer competitive services to the tourist labor market;
3. Paying the main attention to the field of tourism services as one of the effective ways to increase the income of the population in the country;
4. To find ways to eliminate the shortage of personnel in the field of tourism services, to solve the issue of seasonality in the field;
5. Ensuring the geographical mobility of the population and workforce;
6. Emphasis on originality in the use of tourist resources and restoration. This situation is a material factor affecting the quality of tourist services. For example, the results of our research show that there is another aspect that annoys tourists - it is related to the fact that the ancient monuments lost their true appearance after restoration. We observe the reverse trend of this in the whole world, where it belongs to the type of buildings, it is important to preserve them as they are found or in their non-existent condition;
7. Stimulating the development of the tourism sector by providing preferential state credits and subsidies to all types of economic entities that provide tourism services.
8. The culture of waiting and watching tourists is not formed at a sufficient level. It became clear from the observations that the staff working directly in the historical objects and the representatives of the security services do not know their foreign language, do not treat tourists

kindly, do not show a smile even if there is no smile on their face, we consider it as one of the serious factors that negatively affect the quality criteria of tourism services.

9. Adaptation of service services in places of pilgrimage, hotels, recreation centers to the religion, mentality and lifestyle of potential guests.

V. CONCLUSION/RECOMMENDATIONS

In conclusion, it can be said that it is very important to improve the quality of tourism services for the development of the tourism sector.

The first steps were taken in this direction: in May of this year, family recreation typical of "halal tourism", eating at affordable accommodation in quality, tidy restaurants, separate pools for men and women, and playgrounds for children, "halal" a group of experts came from Turkey on the issues of introducing labeled food products and services. It should be said that the 16th-century women's Kunjak bath and other preserved greenhouses located in Bukhara, which are still in operation, should also be included in this list. it would be appropriate to add and advertise it as an ancient monument. For example, "Khurram Sultan" bathhouse in Turkey is one such place. That is, if the majority of tourists come from Muslim countries, there are enough historical grounds for conducting "honest tourism" in Uzbekistan.

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RELEVANCE OF SERVICES FOR THE DEVELOPMENT OF THE COUNTRY'S ECONOMY

HayitovJamshid [1]

ABSTRACT

In this article, special attention is paid to the issues of landscaping, and the population is drawn to the fact that the sharp acceleration of today's urbanization processes, the expansion of cities, district centers, the sharp increase in the population of the country and the production of millions of types of goods to meet its needs, at the same time the recycling and utilization of waste is increasingly emerging as one of the biggest environmental problems. Suggestions and recommendations were made for the correct and effective organization of the services of improvement.

Keywords: improvement, improvement services, improvement standards, employment, economic growth, poverty reduction, city for people, creative city, green city.

INTRODUCTION

The interaction between the countries of the world is accelerating. And it's impossible to avoid being influenced by it. This includes the information society, or the processes of direct globalization. Globalization is the process of increasing economic, cultural, and human interaction and cooperation between different countries. The problem of waste generated by the rapid increase in the population of the country today is a concern not only for the world population, but also for the people of Uzbekistan. At a time when urbanization is accelerating dramatically, cities are expanding, the population of a country is growing exponentially, and millions of products are being produced to meet its needs, the recycling and utilization of waste has emerged as one of the biggest environmental problems.

Today, more than five billion tons of waste is accumulated on our planet. And only about 30 percent of that is recycled. In a year, each person generates an average of 300 kilograms of waste. Divide this number by 365 and you have the amount of waste that one person throws away in a day: minus 300/365 = 0.822 kilograms. Multiply that number by the population of your country and you get the amount of waste a country produces. In our country, 0.822 x 37000000 (as of April 1, 2024) per day, the population of our country produces 30 million 414 thousand kilograms of waste, which is about 11 billion 864 million kilograms worldwide, and only about 35 percent of it is recycled.

Based on analysis of literature on the subject, President of the Republic of Uzbekistan Sh.M. Mirziyoev in the year 2019 On June 4, the President of the Republic of Uzbekistan announced his Resolution PQ-4351 "On Additional Measures to Increase the Efficiency of Works in the Field of Population Development", according to which the issue of modernization of existing cities, district centers, urban massifs and rural settlements in the country was put forward. In addition, the Cabinet of Ministers of the Republic of Uzbekistan adopted Resolution No. 183 of May 3, 2023, in which the issues of approval of the Regulations on the procedure for implementing the programs Obadqishloq and Obad mahalla; on the basis of public

[1] Assistant at the Department of Digital Economy,Samarkand Institute of Economics and Service.

opinion through the processes of initiative budgeting were put forwardthe 2013 budget of the Cabinet of Ministers of the Republic of Uzbekistan; Resolutions No. 315 of December 3 and No. 553 of August 31, 2021 on measures to develop and improve the system of sanitary cleaning in the population centers of the republic indicate that special attention is paid to this type of service in our country.

Decree of the President of the Republic of Uzbekistan of February 28 , 2023 No. U.P.-27 "On the State Program for the Implementation of the New Development Strategy of Uzbekistan for 2022-2026 in the Year of Attention to the Person and Quality Education" and "On Measures to Expand the Scope of Financing Projects Based on Public Opinion" Decisions of the Cabinet of Ministers have been announced and plans of measures have been defined in order to ensure the execution of the resolution No PQ-409 of October 25, 2022. From the above- mentioned tasks, it is clear that scientific research in the field of landscaping services is one of the most important tasks to be performed in this direction, therefore it has its place and importance in scientific publications. However, issues related to the quality and effectiveness of services of improvement, as well as improvement of mechanisms for the proper organization of the system remained outside the scope of research in the development of the service sector. In particular, in the development of the service sector, the methods of evaluating the service of workers employed in enterprises providing landscaping services, the issues of determining the factors affecting this sector have not been sufficiently studied.

Methodology of research

In the course of the study, conclusions and recommendations were formed as a result of the analysis of financial and economic indicators of the development of landscaping services as a component of the national economy through economic and mathematical methods. In addition, the methods of analysis and synthesis have been used effectively in scientific research. Analysis and results With a thorough analysis of the complex processes in the world and the results of the progress made by our country, priority directions of reforms aimed at further improving the welfare of our people, transforming economic sectors and accelerating the development of entrepreneurship, unconditional protection of human rights and interests and formation of an active civil society have been identified and appropriate measures have been determined in recent years on the basis of the principle of "Human value for humanity".

In accordance with the tasks set out in the Strategy for the Development of a New Uzbekistan for 2022-2026 and the Address of the President of the Republic of Uzbekistan to the Oliy Majlis and the people of Uzbekistan, one of the most urgent issues is the further improvement of the living standards of the population, bringing the quality of education in line with advanced international standards, achieving sustainable economic growth and bringing our reforms to a new level in poverty reduction. The increase in the number of people living in the country's existing cities and villages will automatically lead to an increase in the demand for landscaping services. It is noteworthy that all countries, regardless of population size, climate, geographical and other favorable and unfavorable conditions, cannot afford not to use sanitation services in order to provide the necessary sanitary and hygienic conditions for themselves and the necessary amenities for the work, life and recreation of the population.

Today, large-scale projects are being implemented around the world aimed at preventing the harmful effects of waste on the lives and health of citizens, the environment, reducing the generation of waste and ensuring its rational use in economic activities. That's because more than 2 billion tons of solid waste is generated worldwide every year, and at least 33 percent of it is recycled in ways that are not environmentally friendly. The average amount of household waste per person per day is 0.74 kg, with the

lower and upper limits ranging from 0.1 to 4.5 kg across regions. The formation of the image of existing cities in the country, the alignment of road-transport and engineering-communication infrastructure with modern standards and requirements, the construction of new places, the renovation and modernization of existing ones will lead to an increase in the number and proportion of domestic and foreign tourists visiting the country, which in itself will have an impact on the employment of the population.

Timely and high-quality maintenance and operation of the facilities is one of the main tasks of the city and district improvement departments. It is advisable to perform the following tasks in the organization of quality service in the system of improvement services:

- Greening of streets, squares, squares, memorial complexes and other areas of common use, carrying out agrotechnical measures for the care of trees, combating their pests and diseases;
- Proper organization of services of road and bridge management (roadside coverage of the traffic part of streets, sidewalks, station elevators, underground crossings, bridges, transport intersections and road crossings, sidewalks, drainage networks and other artificial structures);
- Repair of inter-household rural roads, improvement of roadside landscaping and environmental condition, as well as their comprehensive and current repair;
- Gradual implementation of an effective system for the correct organization of drainage services (vertical and horizontal wells, open and closed collectors, artificial reservoirs, pumping stations for discharge of ground and rainwater), the comprehensive and ongoing repair and operation of fountains;
- Carrying out systematic work on installation, overhaul and operation of outdoor lighting networks of roads and streets with the introduction of modern equipment and technologies in order to save electricity;
- Organization of services for the capture of uncontrolled: including stray dogs, cats and predators in compliance with veterinary-sanitary rules, and bringing them to veterinary and livestock development departments, taking necessary measuresю

One of the most important tasks of today is the quality implementation of projects for the improvement of populated areas, development of urban areas, construction and planning. It is desirable to use projects that allow to determine benchmarks for the development of these services in the implementation of scientific research in the field of improvement services.

Conclusions and proposals

In conclusion, it should be noted that it is appropriate to further increase the social partnership of local government agencies with non-governmental, non-profit organizations in solving the problems of landscape improvement, in particular in the areas, using the world experience in the development of landscape improvement services, using our domestic capabilities more widely. Proper organization of the system of provision of services of improvement of the appearance of cities to standards The implementation of all these tasks is one of the important indicators of the level of socio-economic development of the country. It is not a secret to anyone that the services of landscaping are of great importance in achieving the development of society through the planning of populated areas, especially cities, based on new approaches in accordance with the principles of "City for People", "Creative City" and "Rainbow City".

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THE IMPACT OF INNOVATIONS IN THE DEVELOPMENT OF TOURISM TRANSPORT INFRASTRUCTURE AND THEIR ANALYSIS

Agzamov Shakhboz Akmalovich[1]

ABSTRACT

The author shows the need to implement one of the steadily developing directions of our national economy, the tourism industry, based on modern innovative ideas, developments and technologies, which ensure the rapid and high-quality advancement of transportation, and the impact of innovations on it, based on sound scientific evidencein this article.

Keywords-*Society, State, Tourism, Transport, Infrastructure, Globalization, Innovation, Economy, History, Evolution , Product, Enterprise, Travel Agent, Resource, Investment, Smart-Tourism.*

I. INTRODUCTION

Nowadays, tourism has become an important sector affecting the economic development of many countries. The main advantage of tourism is that it is highly effective in increasing income and creating new jobs. For many regions and countries, this is the most important. There are several factors in the development of tourism, the most important of which is innovation. Development of the country's economy in the conditions of the market economy cannot be carried out without innovations. In particular, processes related to innovation are of priority for the economy of developing countries [2].

In order to have a better idea of the role of innovations in economic development at the current stage of human society development, we should emphasize that 90% of the growth of the gross domestic product of developed countries is formed at the expense of new knowledge and technologies [3]. Innovation is the law of human society, the constant force of society's development, its product and the main factor of development in general [4]. The term "innovation" as a new economic category was scientifically substantiated by the Austrian and American scientist Y. Schumpeter in the first decade of the 20th century, and several "new combinations" developed by him indicate the rise of the economy in that period [5]. Under the concept of innovation, he meant the introduction of [6]new types of new consumer products, new production, new forms of market organization and making changes for their use .

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Nowadays, the role of innovations in our country is increasing significantly. This is due to the fact that in the market economy, innovation is recognized as a means of competition, because innovation helps to lower costs, increase profits, create new needs, increase cash flow, increase the image of the manufacturer of a new product, organize new domestic and foreign markets and directly conquer them. gives Innovation can be manifested as a process or product that has a significant impact on increasing the company's income [1]. Such a process or product (service) applies directly to enterprises in the tourism sector. Because tourism is one of the most important service sectors, it requires innovative forms and mechanisms of services provided to customers by this sector.

In our republic, as in the rest of the world, innovations are introduced in all sectors of the economy. On September 21, 2018, our President adopted Decree No. PF-5544 " [2]On approval of the innovative development strategy of the Republic of Uzbekistan in 2019-2021" . This decree envisages the rapid introduction of modern innovative technologies to economic sectors, social and other sectors, with the wide application of science and technology achievements. At the same time, all spheres of society and state life are rapidly developing, and the necessity and impact of reforms to develop the tourism sector based on modern innovative ideas, developments and technologies that ensure rapid and high-quality progress of our country on the way to the ranks of world civilization leaders is to be shown in this article.

II. LITERATURE REVIEW

The following scholars have considered the impact of innovations in the development of tourism transport infrastructure and their analysis in their research: Aslanova D.Kh.[1],Navruz-zoda B.N., Ibragimov N.S., Navruz-zoda Z.B., Navruz-zoda Sh.B.[2], Mukhammedov M.[3],Norchaev A.N.[4], Polatov M.E., Mirzaev Q.J., Sultanov. Sh.A, Shavqiev E.[5], Safarov B.Sh.[6].

III. RESEARCH METHODOLOGY

Some theoretical and methodological issues of innovation implementation were studied in the literature related to the development of transport infrastructure in the field of tourism . Among the leading foreign scientists in this regard are Kotler P., Bowen J., Mackens J., Chris Ryan, Lundberg D., Krishnamurthy M., Gee Ch. The scientific works of Y., Makens JC, Chey D. are of particular importance [3]. In the studies of these scientists , great attention is paid to issues such as theoretical aspects of tourism, history of development, evolution, principles, and the role of tourism in the economy of countries in the current conditions . Analysis and synthesis, induction and deduction, multi-factor and dynamic comparison, periodization, economic-mathematical modeling methods were used as research methodology.

[1]Kvartalnov V.A. Strategic management and tourism - M.: Financial statistics, 2000 . - S. 56.

[2]www/ Lex.uz

[3]Kotler P., Bowen J. Mackens J. Marketing For Hospitality & Tourism Pearson International Edition 2014, USA., Chris Ryan. Recreational Tourism: Demand and Impacts/Channel View Publications, 2003. - 358 p. , Lundberg D., Krishnamurthy M. - Tourism Economics. New York: John Wiley Sons Ine. 2003. -210 p., Gee Ch. Y., Mackens JC, Chey, D. The Travel Industry. 3d. Wdit. -New York John Wiley Sons Ine. 2003. -250 r.

IV. ANALYSIS AND RESULTS

In the conditions of globalization, it has become an objective necessity to quickly introduce modern innovative technologies to economic sectors, social and other sectors in the countries of the world.

This, in turn, requires the widespread application of science and technology achievements to the economy. State-wide importance is attached to modernization, diversification of production and service provision, increase in its volume and expansion of competitive products in domestic and foreign markets.

The export of tourist services is important in solving the issue of expanding the country's range of competitive products in foreign markets. Therefore, there are several problems and shortcomings in the development of the tourism sector:

- The low level of cooperation between scientific institutions and the tourism network of the economy;
- Activities of the tourism committee, ministries and agencies, as well as local state authorities in the field of innovative development are not properly coordinated;
- Is that not all opportunities are used to ensure the development of tourism in exchange for sufficient innovative factors.

At the same time, the absence of many indicators in the country's economy, especially in the tourism sector, has a negative impact on the development of the sector. A number of actions are being taken to mitigate and prevent such an impact.

For example, one of the conditions created for the use of innovative technologies in the transport infrastructure of the tourism sector, on October 10, 2019, the Tourism Development Institute, established on the basis of the state unitary enterprise "Tourism Training and Consulting Center" under the State Committee for Tourism Development of the Republic of Uzbekistan, started its activity [1].

The institute was established for the purpose of training and retraining personnel for the field of tourism, conducting fundamental and scientific-practical research in providing services in the field of science and education. This institute should continuously support the development of tourism of our republic and coordinate research.

Based on the above, in our research, we will analyze several different forms and manifestations of the use of innovations in the transport infrastructure of the tourism sector. In addition, we comment on product innovation (i.e. an improved form of an old product) and process innovation (i.e. replacing an old technology with a new one) in tourism.

can see improved innovation, i.e. their impact on productivity and prices, and radical (radical) innovation - the effect of putting a new idea into practice in research, or by assessing the effects of research conducted, stimulating tourism development and the formation of large-scale unexpected new infrastructure . Innovation can be found in every field.

[1]www. Uzbektourism.uz.

Therefore, in addition to traditional technological innovation, new business models and new ways of organizing work are being developed through innovation in design or marketing. It is desirable to use all the best methods of innovation in improving the management of tourism development.

Based on the above, it can be said that it is not enough for tour companies to innovate only, if they do not notice the market demand or changes in the market in time, the work will not be effective if they are not taken into account in the innovation process.

Therefore, we considered it necessary to consider the effects of external and internal factors on the implementation of innovation of tour companies in this article. Summarizing the results of the research of our local scientists, we have brought to your attention below (Fig. 1).

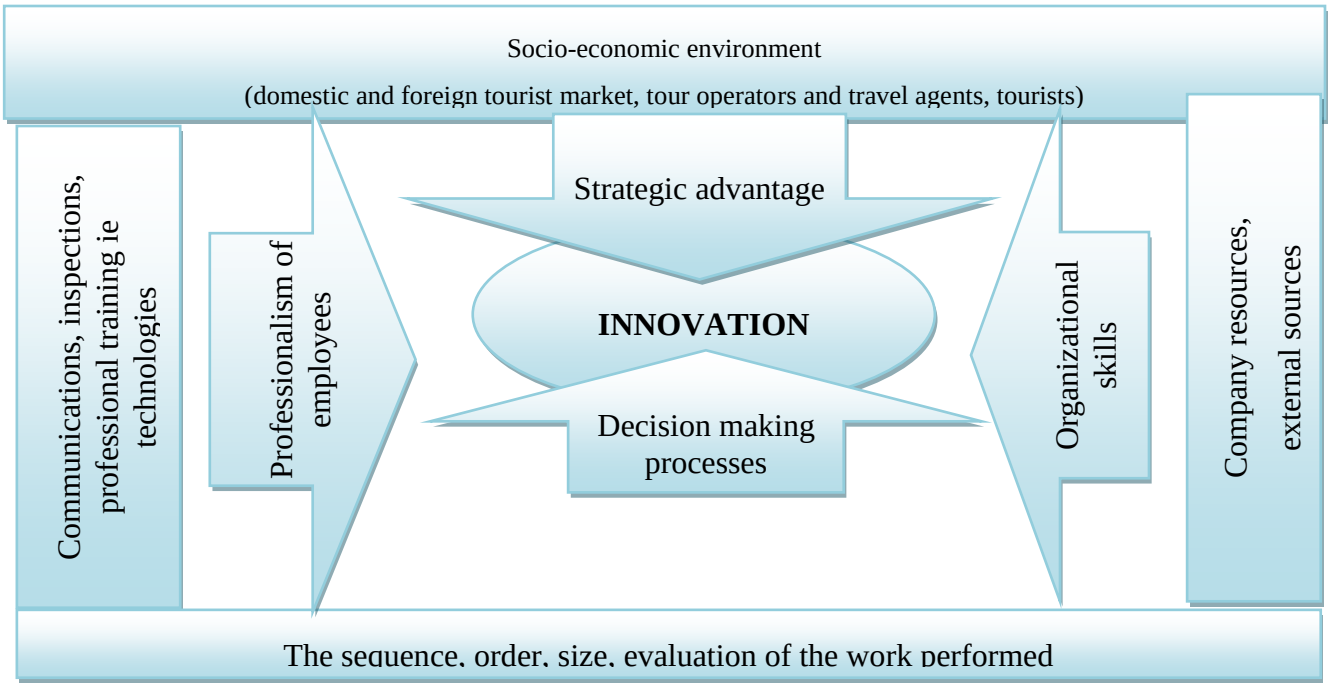

Figure 1. The main factors affecting the application of innovations in the transport infrastructure of the tourism sector [1].

Let's take a look at four of the most important factors for tourism companies to innovate:

- Strategic advantages, that is, the stability of the socio-economic environment (domestic and foreign tourist market, tour operators and travel agents, tourists);
- Related to the professionalism of employees (connected with new technologies, professional training, inspection and communication);
- High level of organizational skills (those that have less impact on innovation among other resources of the company);

[1]Based on the factors influencing the implementation of innovations presented by Julen.

- Decision-making skills (sequence, order, volume, evaluation) of the work performed [1].

All variables play an important role in the application and development of innovation. The reason is that each factor has the characteristic of change over time.

If we take a look at the process of applying innovations in the transport infrastructure of the tourism sector, the rapid development began with the patent for the invention of wheeled suitcases by Bernard David Sadow, an employee of the "United States Luggage" company, in 1972. is doing. The innovation that emerged due to heavy loads about 50 years ago and today's discoveries have essentially the same basis, that is, any innovation is related to the search for a problem and its solution. The biggest problem today is that people are striving for an extremely comfortable life and there are always factors that prevent it. For example, the increase in the population of the planet Earth, complex developments in various fields have created the issue of "Big Information".

Hotels, airports or other entities of the tourism business must analyze the information of several hundreds or even thousands of customers and provide them with efficient service. In addition, these businesses need to manage the flow of information related to their employees and partners. Due to this, innovation processes in automation are taking place in many sectors of the industry. Computers, robots, and artificial intelligence are becoming commonplace in our time for tasks that are difficult for humans to do. An example of this is the development of Opera, Fidelio, Epitome and other similar programs, which provide the opportunity to book air tickets and hotels through Amadeus, Galileo, and manage hotels in an automated manner. It should be emphasized that tourism business entities must use modern communication technologies if they want to effectively deliver their products to customers.

Businesses' own websites, social media or major online platforms popular among travelers, such as booking.com, tripadvisor.com, *ehpedia . Sites like* som, cheapair.com, and having their own pages and updating them frequently are a clear example of an innovative approach to marketing. After all, the ratings formed on the basis of the opinions of users on the Internet and their evaluations of the services provided to them serve as a real advertising and public relations (PR) mechanism for companies offering quality products.

In the present period, conducting scientific research in accordance with the state of economic development and structural changes in all sectors in our republic leads to the coordination of the changes taking place in the economy. Especially in the production and service sectors, many problems are emerging in the process of innovation, and their timely solution requires experienced specialists, material and technical base, organizational and methodological measures.

In the market economy, the problems of enterprises operating in different forms of ownership may arise in the application of innovative processes. When enterprises focus on solving problems in the application of innovations in their activities, there is a high probability of getting into difficult conditions in certain situations. Because the application of innovations cannot be implemented in any enterprise. Therefore, the implementation of innovations can be observed only in the activities of some enterprises. For example, in

[1]Carmen Babaita, Gabriela Sipos, Andreia Ispas, Andrea Nagy. Leadership style and culture for innovation in the hotel industry. Economic Department-Tourism Services. West University of Timisoara, Faculty of Economics and Business Administration Timisoara Romania. 2010 -p 8

the process of introducing innovations, tourist transport enterprises are faced with unsolved issues and tasks in terms of attracting foreign investments and producing competitive products, and they strive to find their solutions.

Innovative tourism enterprises cannot directly introduce. It is necessary to carry out careful preparations for the introduction of innovations. Similarly, in the transport infrastructure of the tourism sector, in our opinion, it is appropriate to implement innovative processes at the following stages.

At the first stage, bringing the proposed ideas into one system. At this stage, the possibilities of implementing innovative ideas are determined. It is natural that there are several alternatives. The most suitable option is selected from them. It is determined that the new tourist product is in accordance with the state image and transport infrastructure, tourism development strategy.

In the second stage, the identified ideas are selected and ideas for the development of transport infrastructure are produced. Attention is paid to the following: collecting information about technological changes in the tourism market; collecting information about the possibilities of transport infrastructure in relation to the production and utilization of agricultural products; setting risk levels and standards.

At the third stage, it is necessary to analyze the economic efficiency of the new crop, develop marketing programs. Marketing is a field that helps to create a new product. At this stage, attention is focused on: technical development of the product when the idea turns into a concrete project; determining the description of the product, evaluating its consumption characteristics and quality; assessment of sales volume and potential market demand; determining the costs of creating and developing a new product; availability of necessary resources for production of new crops; new product production periods and market entry with it; assessment and analysis of the profitability of new product production, development of product marketing programs.

At the fourth stage, consideration of the creation of a new product line is carried out. As you can see, there are three stages to the creation of a new product. This also shows the complexity of the difficulties in applying innovations in tourism. At the stage of creating a new product, the following should be implemented: development of a specific program for the development of a new product with the distribution of obligations by infrastructure sectors; creating a model product and conducting research (checking its socio-economic, environmental safety, etc.); to determine the name of the products, its trademark, registration, in what direction (in which countries of the region, for tourists of what age) its use. It should be noted that the implementation of new approaches is required in the fourth stage itself.

At the fifth stage, it is necessary to consider the process of testing in the tourist market: conduct in a limited market for three months in terms of price and other commercial environments (discounts from prices, loans, etc.); choosing the optimal channels of distribution (sale) of the agricultural product; selection of advertising styles, media, etc.

At the sixth stage, a decision is made to put the newly developed product into use (mass, on a large scale) based on the marketing program for the sale of the product. At this stage, the process of creating a tour product begins, and the production of the tour route (services) is carried out. The main tasks performed at this stage are: commercial justification of the innovation, product profitability, level of demand and needs satisfaction, sales method and channels; the presence of experience in the sale of tourism products, popularity in the market, stable relations with travel agents and tourists; effective use of tourist resources and opportunities for production of tourism products, use of existing opportunities and provision of qualified personnel; financial opportunities, the total amount of investments and financial resources in the production of tourist products, the results that can be expected (profitability or loss) during the reporting period; compliance of the product with international regulatory indicators, standards and state norms and etc.

V. CONCLUSION/RECOMMENDATIONS

It can be said that if the above steps are successfully implemented, any tourism enterprise will rapidly enter the market and get maximum profit when introducing innovation. An environment may arise in which it is natural to have a monopoly position. Therefore, this process is very complicated. Nevertheless, the application of innovations in tourism is more widespread than in many industries, and is used in almost all tourism companies and hotels. In this case, the nature of transition from one tourist firm to another differs. For some tourism companies, replacing the range of traditional products or significantly increasing the number of products, taking into account the consumer requirements for others, increases the consumption quality of traditional products.

In our republic, tour operators often develop a new tourist route without extensive research, without technological changes, on the basis of an old-fashioned view, and in some cases, when developing new tour routes, tourist companies implement new technical and technological aspects without careful planning. The leading motive of innovation in tourism is the production of new tourism products that meet market demand. At the same time, the reasons for innovation are different: improvement of technological processes, economy of tourist resources, environmental requirements, etc.

The main goal of the introduction of technological innovations is to increase the quality of tourist transport services, increase their competitiveness by reducing their cost and expanding their types.

In our opinion, the innovations introduced in the transport infrastructure of the tourism sector will disrupt the existing balance and encourage the economy to develop towards a new balance. Such actions are a normative process that takes place every day and every minute, which ensures the development of society.

It is possible to propose that the development of smart tourism, the introduction of interactive transport service maps and interactive booklets, the placement of interactive boards in historical buildings and monuments, the creation of a tourist portal and a single system for managing the purchase of transport tickets are the main directions of the innovative development of the transport infrastructure of the tourism sector. Creating a single source for booking excursions, creating a single register of tourist services and agencies. Great work is being done in areas such as the development of a single standardized platform for museums and their visitors.

The transport infrastructure of the tourism industry in Uzbekistan is developing in accordance with the requirements of the world market. Therefore, each of the above-mentioned factors is of particular importance in the application of innovations in tourism transport infrastructure.

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EFFICIENCY OF VINE PRODUCTION PRODUCTION AT ENTERPRISES IN THE REGIONAL CLUSTER

Muhitdinov Asror Akobirovich[1]

ABSTRACT

The article examines the essence of economically efficient production of grape products in the agro-industrial complex of the Republic of Uzbekistan, which is one of the priority areas of economic development. The issue of efficient production at enterprises using cluster methods in the regions is becoming increasingly relevant. In general, the process of effective strategic management using the cluster method is innovative and necessary for every state with a market economy. The presented results of scientific observations in the field of system cluster modeling in strategic production management at viticulture and winemaking enterprises will allow us to determine a strategic approach to the formation of a systemic organizational and production chain of the production process.

Key words: *Efficiency, Regional Cluster, Modeling, Viticulture and Winemaking, Region, Economic Development.*

Introduction

In the development of New Uzbekistan, one of the leading industries is agriculture, which is in the process of development, in which cluster modeling of production is becoming increasingly important, as President Sh. Mirziyoyev emphasized in his speech dedicated to the 26th anniversary of the adoption of the Constitution of the Republic. Uzbekistan December 8, 2018. In his speech, he drew great attention to the need to cluster production industries [1]. In the economic science of our country, the concept of “cluster”, its essence, significance and content is relatively new for the market economy of the republic, therefore a number of economic reforms are required.

The importance of cluster modeling of production was emphasized in his speech dedicated to the 26th anniversary of the adoption of the Constitution of the Republic of Uzbekistan, on December 8, 2018, by President Sh. M. Mirziyoyev. He paid great attention to the need to cluster production industries [1]. In the economic science of our country, the concept of “cluster”, its essence, significance and content is relatively new for the market economy of the republic, therefore a number of economic reforms are required.

Literature review.

In the conditions of the formation and development of a market economy, there is an urgent need to develop a clear and effective regional policy. Cluster modeling is based on taking into account the specifics of regions, the comprehensive development of local self-government, creating conditions for local entrepreneurship, solving internal social problems, and problems of rational use of natural resources [2].

The diversity of natural and economic conditions, different levels of socio-economic development predetermine the need for a targeted regional policy, however, the old tools of territorial planning no longer

[1] Independent applicant, Tashkent State Transport University, Tashkent, Uzbekisten

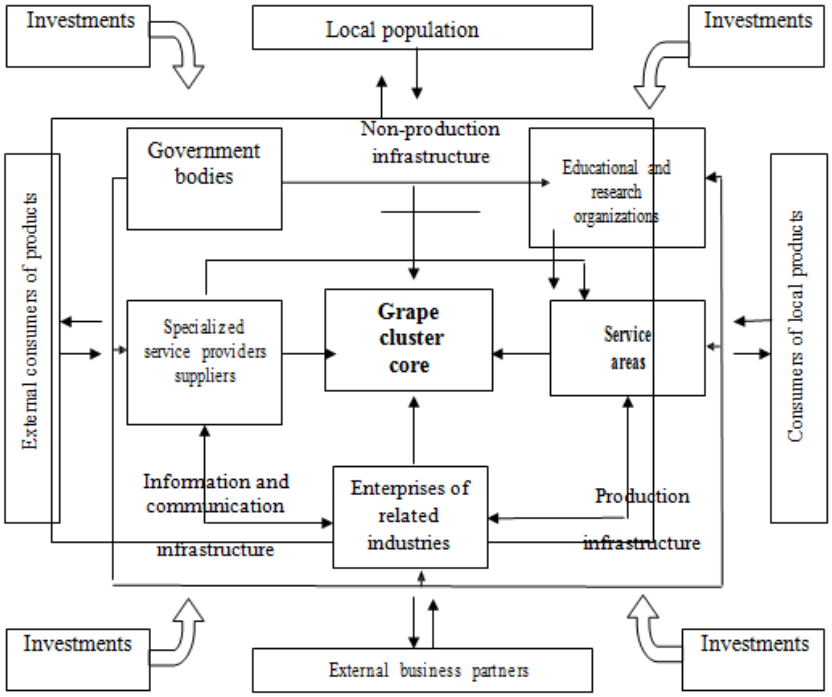
work, and the new one, adequate to market relations, has not yet been fully formed. But market mechanisms are not always able to achieve the efficiency of the regional economy. In general, the rise of the industry's economy is impossible without a scientifically based regional policy [3].

Research methodology.

Each industry should have a real opportunity to maximize its development potential and ensure an increase in the well-being of the population. In accordance with this, an effective cluster model should be implemented in the republic, opening up space for the initiative of industry enterprises and helping to equalize the economic conditions for independent management [4].

The main goal of cluster modeling of the industry's production process is to change the existing proportions and trends in socio-economic activity, welfare and resource distribution, that is, to minimize those inequalities that impede the sustainable socio-economic development of the country.

The proposed model for the development of a regional grape cluster is common for agricultural enterprises. The structure of each specific regional cluster depends on its mission and technical characteristics. Based on the above components, we can propose the following general model of an agro-industrial cluster (Fig. 1).



Scheme 1. Regional model of agro-industrial cluster (Drawing made by the author)

Regional economic sectoral policy ensures a more uniform distribution of productive forces based on the creation of an adequate system of production and social infrastructure, development of the territory in the form of a combination of cities and a transport network, and regulation of the urbanization process in the spatial aspect. It relies on local initiative, broad rights and opportunities for enterprises in the integrated development of the economy at different levels of the territorial hierarchy [5].

Analysis and discussion of results.

From the point of view of a systems approach, a cluster is a collection of economic entities in interconnected various industries, representing a single organizational and technological structure, the elements of which function together with subgoals for a specific purpose. The formation of effective technological chains from several independent economic entities is a strategic event that requires certain long-term investments in their implementation. Such interaction leads to additional benefits for each of the subjects and creates a certain incentive to form a unified production system.

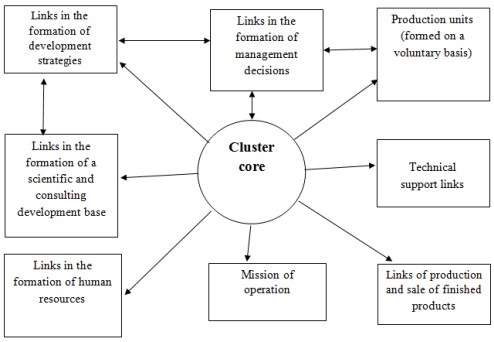
Cluster development of a sectoral economy is a business tool. A market-oriented society forms the rules for the functioning of business entities by issuing new laws; development of relationships between subjects; contributes to the creation of the banking sector, support institutions, etc. Therefore, a cluster is a special image of an organized space that allows small and large enterprises that make up one production chain, concentrated in one region, to successfully develop [6].

The grape and wine cluster represents an intersectoral interaction between agricultural and production sectors. The development of this cluster depends on the potential of the region, including the possibility of growing competitive grape varieties, as well as the availability of labor, the level of innovation, etc.

The main goal of regional economic sectoral policy is to change the existing proportions and trends in the distribution of socio-economic activities, wealth and resources, that is, to minimize the inequalities that exist between the regions of the country.

Modern regional economic sectoral policy is characterized by liberalization and stimulation of a more complete use of the potential of the regions themselves. The goals of regional development must correspond, first of all, to the interests of industry enterprises. And here it is necessary to clearly distinguish between goals of national importance set by the government, ministries, departments for economic entities, and goals of regional importance. It is especially important to find the optimal combination of national and regional interests.

Relations between enterprises are built on the basis of mutually beneficial partnership of each subject of the cluster, where each subject performs its own specific function (Fig. 1).



Drawing 1. Functional-unit structure regional agricultural cluster [1]

[1]Схема разработана автором

The structure of the grape industry consists of regional agro-industrial farms, processing enterprises and other organizations that complement a single cluster. The essence of clusters lies in the ability to take various forms of production organization depending on the depth of penetration into the area under study and to study the degree of their complexity. Manufacturing and agro-industrial clusters are based on innovative technologies that help improve the level of competitiveness of the region's industry economy.

To clearly define the task of regional economic sectoral policy and select appropriate means of solving them, it is necessary to identify the causes of production inequalities, that is, to establish objects of intervention, which include:

- Non-identical natural and climatic conditions in the regions;
- Use of natural resources;
- The condition and position of transport roads in the region, as a result of which transport costs increase, prices rise and the sales market narrows;
- Weak transport and communication connections between participants in the cluster model;
- Outdated production structure, delay in introducing innovations;
- Intense inter-sectoral connections and overpopulation;
- Direction of the technological development model that influences certain types of goods production;
- Production infrastructure, i.e. physical factors of location of economic sectors;
- Large external control over enterprises or a small share of enterprises founded by local entrepreneurs;
- Socio-cultural factors.

If we compare the national model, based on a cluster system of design and planning, strategic management with international standards, then a growing interest in improving the strategic management model among representatives of large industrial companies is revealed.

In general, the process of strategic management is evolutionary and is necessary for every state with a market economy, since strategic management for interconnected industrial production is formed according to the need for innovative development of the national economy of the republic and the entry of the country's products into the international market. In pursuit of this goal, strategic management attributes are introduced, assessed by external investors. But to maintain investor confidence, it is necessary to form more effective models for optimizing cluster planning in the strategic management of the production and technological cluster of viticulture and winemaking.

The system for implementing the cluster model of economic development of the industry includes state regulation of territorial development, laws and regulations that ensure its implementation, economic regulators, as well as program-targeted methods for regulating the development of the industry.

In countries with market economies, two main goals of government intervention in the development of industries in the region have been identified:

1. Justice is a cluster modeling of economic activity in which all people involved in production have more or less equal opportunities to achieve the desired well-being;

2. Efficiency, which requires the rational use of the production potential of each enterprise in order to increase national welfare [7].

The use of the systematic cluster approach methodology in the development of the state program for the development of the industry is carried out according to a model in which the following stages are usually distinguished:

- Determination of development goals;
- Development and achievement of intended goals;
- Calculation of resource requirements and their distribution;
- Modeling of the links of the overall system;
- Determination of criteria for the functioning of the system.

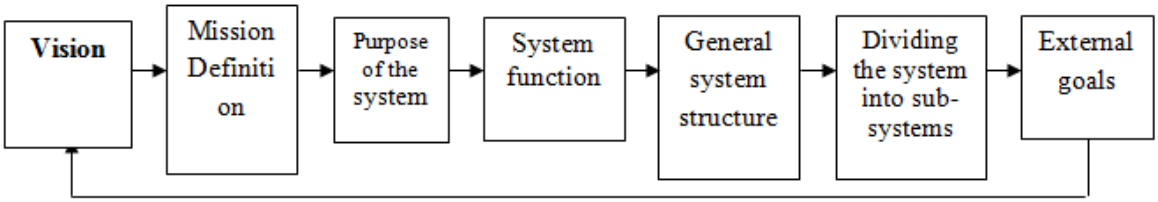
The systems approach is extremely diverse in specific forms of manifestation, starting with a general methodology in relation to routine management techniques and ending with complex economic models, the use of automated systems for analyzing economic activities and making decisions. The systems approach, on the one hand, allows one to overcome the shortcomings of the market mechanism as a determiner of specific production goals, socially necessary costs and a regulator of their distribution; on the other hand, arising on the basis of market relations, it presupposes a more advanced use of cost categories, as well as taking into account the needs of the market. Therefore, the systems approach acts as a specific method for analyzing economic processes in order to manage them through market and settlement-normative categories.

In the process of substantiating state regulation of industry development, the following stages of the cluster system approach are distinguished:

- Identification of problems of regional sectoral economic development;
- Formulation of general goals of regional sectoral economic development;
- Justification of the territorial organization of the industry’s productive forces;
- Identifying ways to achieve set goals and models in the development of regional sectoral economic development;
- Determination of resource needs and their distribution between industries;
- Modeling the structure of the economic system of the industry;
- Justification of criteria for the effectiveness of the functioning of the regional sectoral economic system.

The methodology of system activities, based on mathematical calculations, ensures increased reliability of the proposed measures and is an instrument of state regulation of the development of the industry and the formation of market relations in it.

The use of a systemic cluster approach and its methods in substantiating economic development allows for a transition from a fragmented consideration of individual activities to the development of a set of measures at each stage, ensuring the unity, focus and interconnectedness of all elements (Fig. 2).



Rice 2. Elements of cluster system modeling of the development of the agricultural and industrial sector (The diagram was compiled by the author)

The economic development of the industry is unthinkable without improving strategic management, since modern enterprises are complex social entities that are included in a wide range of different kinds of relationships with the external environment and have different internal structures.

The order of the elements that make up the organizational structure and the availability of various resources determine the degree of implementation of goals. Since the goal of the enterprise is to obtain maximum profit through production, the goals can achieve their resolution through interaction with the external environment. The relationship of all the constituent internal elements of the enterprise can be presented in the form of the enterprise's own model as a set of related model elements that determine the internal and external production environment within the framework of a single production chain system.

For regional economic sectoral development, it is necessary to form regional economic sectoral ties, operating in accordance with the adopted regional economic sectoral policy, different from other regions that require modernization of the social and production infrastructure of the regional economy.

Conclusions and offers.

In connection with the above, we can conclude that the management structure with a systemic cluster organization of production and the successful sale of export-oriented products can significantly increase the influence of the grape and wine industry on the economic indicators of the country, provided that export-oriented technical viticulture is developed. The proposed systemic cluster innovative approach allows us to improve the projected and current sectoral economic management system of the Agency for the Development of Viticulture and Winemaking of the Republic of Uzbekistan contributes to the implementation of Decree of the President of the Republic of Uzbekistan No. 3573 "On measures to radically improve the wine industry and the sale of alcoholic products" dated 02.28.2018.

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WAYS OF EFFECTIVE ORGANIZATION OF INVESTMENT PROCESSES IN THE INDUSTRY NETWORK AND THE IMPORTANCE OF STATE PROGRAMS

Kasimov Azamat Abdukarimovich[1]

ABSTRACT

In this article, the essence of the state policy on the effective use of the inputs introduced into the industrial network, and the main goals aimed at it are highlighted. Factors affecting investment attractiveness in industrial network enterprises and investment attractiveness evaluation directions were analyzed. Also, the main dynamics of increasing investment trends in this industry are shown.

Key words: *Investment, Investment Attractiveness, State Investment Policy, Source Of Investment, Industrial Enterprise.*

Introduction

Capital is one of the main factors for the rapid development of any branch of the economy. Because, starting from a qualified specialist, money is required to have modern technologies, raw materials and other factors of various production processes. Of course, only the state budget or private capital of the population is not enough to finance real sector enterprises. This is especially true in developing countries.

In recent years, the economy of our country has been developing rapidly. For example, in 2023, the volume of GDP will be about 1066.7 trillion. soums, and the growth rate compared to last year was 106.0 percent. Also, the amount of investments in fixed capital is 352.1 trillion. reached 122.1 percent, compared to the previous year.

It should be noted that in the next period, comprehensive reforms are being carried out to increase the investment attractiveness of economic sectors, including the industrial sector, and to attract investments, especially foreign investments.

In particular, the "Development Strategy of New Uzbekistan for 2022-2026" was adopted by the Decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022. According to him, further improvement of the investment environment in the country and increase of its attractiveness, 120 billion in the next five years. US dollars, including 70 bln. measures to attract dollar foreign investments were set as the main goal.

In addition, it was clearly defined the implementation of a new system for the effective use of investments and the increase of export volumes, based on the "bottom-up" principle, as well as the implementation of the strategy of attracting foreign and domestic investments until 2026. Also, the "Uzbekistan-2030" strategy was adopted by the Decree of the President of the Republic of Uzbekistan No. PF-158 of September 11, 2023. According to him, one of the main tasks is to further increase the investment attractiveness of our country, to ensure an average annual growth of 7% in the volume of investments in fixed capital, to absorb 250 billion dollars of investments in our country, including 110 billion dollars of

[1] Independent researcher (DSc) of Tashkent State University of Economics

foreign investments and 30 billion dollars of attracting investments within the framework of public-private partnerships. defined as These measures stimulate the flow of investments into the country.

However, the investments being made are not always effective. It largely depends on its purposeful and correct use. This is evaluated by the analysis of the technological composition of investments and the achieved results, and thus the investment policy of the state is developed to increase the efficiency of investments. In turn, it requires scientific research in this field and expresses the relevance of this research.

Literature review

The state's investment policy in the industrial sector is a way to attract investment funds to the sector and establish functional directions for the effective use of investment funds to ensure its growth [1].

The state's investment policy represents an integrated model of interaction between all subjects of investment processes at different levels. Its purpose is to direct large-scale capital investments in the industrial sector, which will lead to an increase in the efficiency of enterprises in this sector.

State investment policy is a part of macroeconomic policy, which expresses the state's attitude to investment activity and determines its direction and purpose.

In the formation of the investment policy in the industrial complex, restrictions on the implementation of this policy, management processes of investment activity in the enterprises of the industrial complex, investment climate, etc. take a leading place [2].

The development of the industrial network is directly related to the direct regulation of investment processes by the state, and the state's investment policy in this regard includes investment policies at the micro and enterprise levels.

The state's investment policy at the micro level usually provides for the evaluation of the innovative activity of industrial enterprises, the quality of individual programs and projects related to the development of the industry in competitive conditions, and the purpose of the investment policy at the micro level is as follows [1]:

- Assessment of efficiency of investment projects in industrial sectors using quantitative and qualitative analysis, selection of investment projects and determination of its superior (relative and absolute) aspects compared to other projects;
- Quality implementation of the selected project.

According to E.V. Makarenko, depending on the nature of industrial enterprises, the investment policy in the industrial complex can be formed in several directions, including [3]:

- Encourage investment in the industrial complex;
- Approval of priority and established single criteria of competitive advantages of industrial enterprises from the point of view of investment attractiveness;
- Providing various benefits and advantages to industrial enterprises of the state that are attractive for investment;
- Support the innovative production of existing industrial enterprises, create relatively favorable conditions for the innovative development of industrial complex enterprises.

The sources of investment in industrial enterprises are private and debt funds, and private sources of investment include the following [4]:

- Private financial funds, funds formed from depreciation allocations to the current fixed capital, funds allocated from profits for investment, payments of insurance companies, etc.;
- Attracting funds from the sale of shares and the result of enterprise production;
- From the sale of trademarks, land plots, software products and obtained patents;

allocation funds of financial-industrial groups, joint-stock companies and holdings on the basis of the condition of non-return, etc.

According to S.A. Jigarev [5], if the main goal is to modernize production in the industrial sector and increase the efficiency of investment processes, the following are its auxiliary goals:

- Development of cooperation and integration, improvement of organizational and economic relations;
- Activation of investment processes based on scientific and technical development with the help of material and technical support;
- Organizing marketing research and product sales;
- Ensure expansion of reproduction based on modernization;
- Improving the organization of the use of labor resources, forming social infrastructure.

Research methodology

Analytical comparison, logical and comparative analysis, grouping and expert evaluation methods were widely used in this research. Also, the research works of foreign and domestic scientists on the topic were widely studied and analytical conclusions were presented.

Analysis and results

The state policy on the efficient use of inputs into the industrial network brings benefits to the state in four directions:

1) increases the development dynamics of the economy and industrial sector;

2) enterprises of this network will have the opportunity to transfer some of their functions to the future (creation of social infrastructure);

3) there will be an additional effort to increase the pace of development of other industries;

4) there will be an opportunity to effectively solve problems related to the development of regions.

Therefore, in recent years, the financial resources allocated within the framework of State programs implemented in our country and the volume of investments reflected high growth dynamics [6].

The main objectives of the state investment policy will be:

- Mobilization of necessary financial resources for investment activities;
- Implementation of the targeted comprehensive program of the state in the development of the industrial network;

- Increase efficiency of capital investments and ensure structural changes;
- Improving the social life level of the country's population;
- To encourage investment in industry and metal processing industry;
- Choosing the priority areas of investment resources in the network;
- Supporting industry enterprises in unfavorable economic conditions by providing benefits to investors;
- Supporting the development of innovative activities;
- Increasing the payable demand for industrial and metalworking network products.

Enterprise-level investment policy in the industrial network is carried out in the following directions:

- Release network enterprises from a difficult situation;
- Renewal and modernization of the main production funds of branch enterprises;
- development of innovative activities of branch enterprises;
- Improvement of the management system of branch enterprises;
- Development of social infrastructure.

It can be seen that the development of the sector is directly dependent on the intervention of the state, and such intervention represents the normalization of the investment environment by optimizing several macroeconomic parameters, and this is an additional effort to activate capital investments in the real sector. In turn, this process stimulates the growth of the economy. In addition, it is necessary for the state to direct "big investments" to this sector in order to carry out collective restructuring changes in all sectors and to qualitatively (innovative) development of the industrial sector.

From the point of view of investments attracted by various investors, the enterprises of the industrial complex are considered to be a sufficiently "risky" object. There are many reasons for such risk, in particular, the investment volume requires a long period of payback. Another important aspect of the issue is that for the investor, instead of investing in the enterprises of this sector, it is possible to get a greater profit by using this investment fund in another field using an alternative option.

Due to the above, the state should encourage investment in the industrial complex and implement the following measures:

- Direct state investment in the activities of industrial enterprises;
- Control of attracting investments to industrial enterprises and their financial status;
- State support for the education of employees of industrial enterprises;
- Creation of separate economic zones for opening industrial enterprises;
- Creation of investment funds or participation in the creation of funds;
- Establishing cooperation with banks regarding the future development of industrial enterprises.

Studies show that the state pursues not one, but several goals by conducting investment policy in the

industrial and metalworking sector. In particular, it is appropriate to point out the following as the most important of them (Fig. 1).

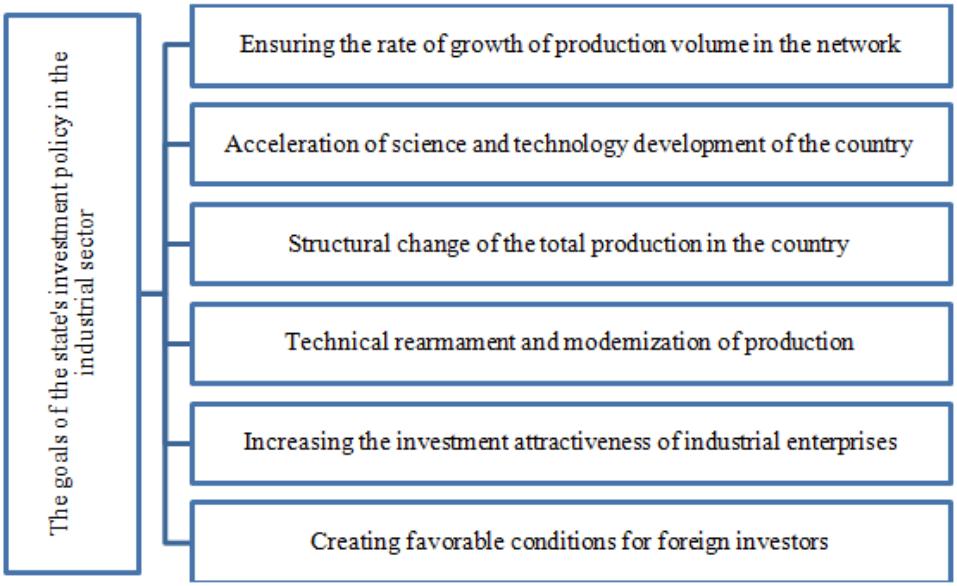

Figure 1. The goals of the state's investment policy in the industrial sector[1]

In the industrial sector, investment costs are allocated to depreciation costs and are directed to the replacement and repair of obsolete equipment, buildings and structures, while net investment is directed to the expansion and replenishment of existing physical capital, ensuring the growth of production at subsidiary enterprises.

Foreign investment sources of industrial enterprises include:

- Budget funds of different levels, allocations from various funds of entrepreneurship support on the basis of the condition of non-return;
- Foreign investments, international organizations, financial institutions, and funds provided by the state;
- Various types of debt funds, including loans, non-refundable support funds for entrepreneurs and funds allocated by the state, bank loans, funds from other institutional investors (investment funds and companies, insurance companies, pension funds) and promissory notes and other funds.

However, it should be said that internal funds of enterprises, i.e. depreciation allowances, play a leading role in the main sources of investment, and its share usually exceeds 70 percent. Due to the inflationary processes in the conditions of the market economy, the value of fixed assets is revalued, and therefore the only source of increasing the investment activity of enterprises is the accelerated depreciation of fixed assets.

[1]Based on the author's research.

State investment programs are implemented in the country in order to increase the investment activity of enterprises in the national economy, attract and effectively use foreign investments. These programs serve to re-equip production enterprises technically, implement production and economy modernization programs, and ensure sustainable economic growth.

The investment program is a set of social, economic and economic decisions that determine the priority directions of capital investments spent on the economy and ways of their effective use. Today, the main directions and measures of investment programs in our republic consist of the following [7]:

- To provide priorities for the implementation of structural changes in the economy;
- Creation of a material production base to implement effective measures for import substitution and expansion of export potential;
- Organization of competitiveness of products;
- Increase the investment activity of enterprises and attract foreign investments on a large scale;
- Large-scale attraction of foreign investments for development of production, technical rearmament and modernization, creation of new jobs;
- Increasing the level of localization in the production of finished products and spare parts;
- Expansion of production of export-oriented competitive products, etc.

The investment attractiveness of network enterprises played an important role in the investment of the industrial network. In this regard, several factors influence the investment attractiveness of enterprises, and this set of factors is conditionally divided into two groups (Table 1).

Table 1 : The main factors affecting the investment attractiveness of industrial network enterprises [8]

Internal factors	External factors
- financial status of network enterprises; - efficiency of management system; - nomenclature of manufactured products; - diversification of production; - structure and organizational-legal form of enterprises; - openness of enterprises; - openness, reliability and completeness of reporting data.	-characteristics of the network; - system of legal norms; - political and foreign economic environment; - investment attractiveness of the country's regions.

It can be seen that the investment attractiveness of network enterprises expresses complete information about the state of the enterprises, and this state serves as a basis for attracting potential investors and taking risks. Also, the main elements of investment attractiveness in the industry are classified as follows

(Table 2).

Table 2 : Classification of the main elements of investment attractiveness in industry [5]

№	Investision attractiveness assessment areas	The basic structure of attraction elements
1	Production	Ensuring the growth of production of competitive products, which makes it possible to conduct an efficient business
2	Proprietary	Formation of the management system of the property complex, which provides an opportunity to optimize social and production
3	Selling	Determining the market sales channels of products produced in competitive conditions
4	Financial	Optimization of the main financial factors, significant changes in investment processes, identification of funding sources and assessment of their targeted use
5	Innovative	Optimizing directions of innovative development, focusing on increasing product competitiveness

Today, the participants of investment processes in the industrial network are not only investors (legal entities and individuals who invest money and other resources), but also principals (legal entities and individuals who have the authority to implement investment projects), users of investment activity objects (legal and individuals who create an investment activity object individuals) and investment exchanges, banks, insurance providers and other intermediary organizations are also participants in this process, and investment processes include [9]:

- Direct (real) investments in the construction, repair and acquisition of new production facilities;
- Bank investments - investment of bank resources;
- Investments in fixed capital - acquisition of production equipment and machinery of industrial enterprises and construction of new production facilities;
- Intellectual investment - investing in the training and education of specialists and the development of scientific and technical development;
- Portfolio investments - investing in shares, bonds and other securities for profit;
- Foreign investments - long-term investments in the capital of foreign owners;
- Investments in human potential;
- Innovative investments;
- Risky investments;

- Venture investments.

Conclusions

Currently, the following directions are forming the main dynamics in the trend of investing in the industrial sector in many countries in world practice:

- Investments in creation of new equipment, use of innovations and modern technologies, implementation of new developments in production;
- Investments in production modernization (technical and technological modernization, product modernization, personnel training and modernization of management systems);
- Investments in ensuring the competitiveness of the product, improving its quality and increasing energy efficiency, as well as stimulating the production of high-tech industries, etc.

In conclusion, in recent years, the demand for products of industrial sectors with high innovation and scientific-technical capacity has increased in the world markets. As a result of this, significant changes occurred in the export structure of many countries, and the share of products of this sector in the commodity structure of exports increased. As a result, due to the above, many countries began to move to different ways of supporting high-tech industries, and in practice, various forms of financial support for enterprises of this sector began to appear.

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ECONOMIC POSSIBILITIES OF MARKET CONCENTRATION

D.T.Hudayberganov[1]

ABSTRACT

This article describes the importance of market concentration and its calculation methods, active influence on market activity, available opportunities, necessity and economic possibilities. Also, proposals and recommendations aimed at revealing the economic possibilities of market concentration are given.

Key words. *Market, market concentration, firm, Herfindahl-Hirschman index, trade, price.*

It is known that in our country regulatory legal documents have been adopted on the anti-monopoly regulation of trade, economic concentration and state aid. It includes that the duties and functions of the Anti-Monopoly Committee of the Republic of Uzbekistan are anti-monopoly regulation of trade, economic concentration and state support [1]. Implementation of economic concentration is a set of transactions and other actions which affects the level of competition. Objects of economic concentration pre-negotiate these transactions with shares, rights and properties, the anti-monopoly service. According to the EU Merger Regulation, a concentration results from a long-term change of control. Economic concentration reflects the uniting of two or more parts of previously independent enterprises. And directly or indirectly over one or more persons who have control over one or more enterprises by purchasing securities or assets under the contract or on another basis marked by gaining control.

A manifestation of economic concentration is market concentration. Market concentration representsthe relative size and number of enterprises operating in the market. This state is often called concentration. In economics, market concentration includes the number of firms and their share of total output in the market. That is, market concentration is the part of the market share owned by a small number of enterprises.

When market concentration is high, the market is dominated by a few firms. In most cases, high market concentration leads to negative consequences such as reduced competition and increased prices. The market concentration ratio measures the concentration of leading firms in the market. This can be through sales, number of posts, active users or other metrics. In theory and practice, market concentration is closely related to market competitiveness. Therefore, the issues of regulation of market activity are considered. When setting prices and quantities, a firm uses market concentration to determine market power.

Market concentration refers to the combination of the density of market structures and the shares of market agents in terms of supply and demand. If the number of firms is small, the level of concentration is high. If the number of firms in the market is the same,there will be the higher the level of concentration, the greater the inequality in the distribution of market shares. Market concentration of sellers can be used to determine the relative size of firms operating in an industry [2]. Market concentration is affected by entry barriers and existing competition. High market concentration with a small number and variety of firms can affect the outcome of the dominance of only a few large firms [3]. Market concentration ratios allow users to

[1] DSc, professor, Urgench State University, Urgench, Uzbekistan

determine the type of market structure they are observing, whether it is a monopolistic or oligopolistic market structure from a perfectly competitive one.

Market concentration is important for the good performance of the current dominant instrument in the promotion of renewable energy worldwide [4]. Market concentration is related to industry concentration, which is related to the distribution of production within an industry, as opposed to a market. In an industrial organization, market concentration can be used as a measure of competition, that is, it can be positively related to the level of profit in the industry. Accordingly, the following indicators are studied as a system of indicators representing the level of market concentration (table 1).

Table 1. A system of indicators representing the level of market concentration

Index name	Index property		Basic criteria
Concentration coefficient	absolute	directly	-the number of subject -market share -directly proportional to the level of concentration
Linda coefficient			-the number of subject -market share -share ratio
Herfindahl-Hirschman coefficient		total	-the number of subject -market share -directly proportional to the level of concentration
Hold-Tideman coefficient			-the number of subject -market share -the level of enterprises(by size of assets) -directly proportional to the level of concentration
Entropy coefficient			-the number of subject -market share -inversely proportional to the level of concentration

The Herfindahl-Hirschman index (HHI) is used to assess the level of market concentration within these indicators. This index is used in antimonopoly activities to assess mergers of enterprises and their subsequent impact on the market. The sample size can be limited to 50 large firms to achieve accurate

results. The Herfindahl-Hirschman index is the ratio of the shares to the square of their market shares for the 50 largest firms in an industry.

The result of the calculation of the index can be a decrease in competition and an increase in market power, or vice versa. The main advantage of the index is thatgreatimportancegiven to the largest companies in the market. The ease and ease of calculating this index is determined by the small amount of available data.

The Herfindahl-Hirschman index is determined by the following formula:

$$HHI = s_1^2 + s_2^2 + s_3^2 + \ldots + s_n^2$$

Here, s-the firm's market share and n-is the number of firms in the market.

If HHI < 0,01 (or 100 if percentages are used as whole numbers), it represents a highly competitive industry.

HHI < 0,15 (or 1500) indicates a non-concentrated industry and a competitive market.

An HHI of 0,15 to 0.25 (or 1500 to 2500) indicates an average concentration. Under it, mergers and acquisitions are possible, but may raise anti-competitive concerns.

An HHI > 0,25 (or 2500) indicates a high concentration. Mergers and acquisitions increase the concentration of market power and are considered anti-competitive, and in this case the market is close to monopoly.

For example, if the share of firm A is 12 percent (0,12), the share of firm B is 25 percent (0,25), and the share of firm C is 34 percent (0,34), then the value of the Herfindahl-Hirschman index is 0,1925 will be equal. This value indicates that it has an average concentration level.

In our opinion, market concentration is a criterion that can be used to sort different distributions of firms' shares of total output in the market.

The main limitation of the index is the complexity of identifying market characteristics. An industry can have many firms. This indicates an unconcentrated industry and a competitive market. However, within an industry, one firm may be dominant. A second limitation of the index is its geographic coverage. If firms have equal market shares, then monopolization does not exist. However, if each one works in its own region, then the issue of monopolization in the specific market of the region where the enterprise operates will arise. Based on it, the development of markets should be clearly defined.

The market concentration coefficient measures the total market share of all leading firms. Here"market share" is used as a reference. It can be sales, employment statistics, the number of people using the company's services, the number of sales points and others. Top firms or the best 'n' firms can be three or a maximum of five. If the best firms continue to gain market share, it can be considered highly concentrated. Concentration within an industry can be defined as the degree to which a small number of firms fill the total volume of production in the market. If concentration is low, it is simply because the best n firms are not influencing market output and the industry is considered highly competitive. On the other hand, if concentration is high, it means that the best "n" firms influence the production or services offered in the market.

Analysis of market concentration reflects the existence of highly competitive relations in the distance selling market [5]. The lack of monopoly in the distance trade market indicates the desire of trade organizations to improve the quality of trade services for improving economic results. Healthy competitive relations in the distance trade market allow for the process of its development, to increase the socio-economic efficiency of distance trade structures and trade activities.

To conclude, the level of concentration affects the behavior of firms in the market. The higher the level of concentration, there are the more firms and the more interdependent each other.The result of the firm's independent choice of production volume and product price is determined by the response of competitors operating in the market. The degree of concentration affects the tendency of firms to compete or cooperate. The fewer firms in the market, the easier it is for them to understand each other's interdependence and the higher the cooperation. Therefore, the higher the level of concentration, the lower the competitiveness of the market.

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CLASSICAL AND NEOCLASSICAL THEORIES" ABOUT THE ROLE OF INVESTMENTS IN THE SYSTEM OF THE REPRODUCTIVE PROCESS

SalamovFarrukhFattoevich[1]

ABSTRACT

The article is devoted to the role of investments in the system of the reproductive process in the theories of classical and neoclassical schools .Classical political economists have a holistic vision of building a socio-economic system, including a system of social reproduction. Limited by the strict limits of equivalent exchange, they proceed from the principle of the impossibility of obtaining additional income through speculative transactions. Neoclassical theory was less critical of the importance of trade in making a profit. They believed that it could be mutually beneficial, but not equivalent in the traditional sense of this definition, which allows the parties involved in the transaction to gain due to a higher subjective assessment of the acquired good compared to the given one.

Keywords-*Sphere Of Production , Reproduction, Investment, Absolute Rent, Capital.*

I. INTRODUCTION

Classical political economists have a holistic vision of building a socio-economic system, including a system of social reproduction. Limited by the strict limits of equivalent exchange, they proceed from the principle of the impossibility of obtaining additional income through speculative transactions. If one of the sellers benefits from the exchange, this at the same time means that the buyer incurs certain losses, since buyers and sellers easily change roles, then throughout society there will be equality in the form of an equivalent exchange, which will not allow an excess of money to be obtained in the sphere of circulation. funds. The only source of additional income remains the production sector, in which the driving factor is labor [2].

II. LITERATURE REVIEW

The following scholars have considered classical and neoclassical theories in their research: M.M. Mukhammedov, N.A. Kamilova[1],Becker G.S.[2], John J. Murphy [3],Ermilina D.A.[4], LyachenkovYu.N., Konovalova M.E.[5].

III. RESEARCH METHODOLOGY

We used methods of logical analysis and synthesis, grouping, abstraction ,induction and deduction in the research.

IV. ANALYSIS AND RESULTS

The concentration of both industrial and financial capital by the end of the 19th century led to the presence of some contradictions in the studies of the classics of political economy, based on the principle of equivalence of exchange. Thus, K. Marx in the third volume of Capital, discussing the nature of rental

[1] Senior Lecturer of the Economic Theory department of the Samarkand Institute of Economics and Service. Uzbekistan.

[2]M.M.Mukhammedov . , N.A. Kamilova // Economic theory / textbook. Samarkand 2023 288-289 ps.

income, in particular, absolute rent, believes that its origin is connected with the monopoly of private ownership of land.

Absolute rent is interpreted by him either as a part of the actual value or as a monopoly premium, not associated with the industrial production process, but as a product of normative value judgments of participants in market relations. This once again emphasizes that K. Marx goes beyond the scope of the study of competitive economics, which is based on the principle of equivalence of exchange. His study of the false social value of financial capital does not fit into the paradigm of the labor theory of value. Money, fulfilling the traditional role of an intermediary in the exchange of goods, is beginning to acquire increasing independence, and the financial segment is becoming separated from the real sector.

Representatives of neoclassical theory were less critical of the importance of trade in making a profit. They believed that it could be mutually beneficial, but not equivalent in the traditional sense of this definition, which allows the parties involved in the transaction to gain due to a higher subjective assessment of the acquired good compared to the given one. The famous Austrian economist O. Böhm-Bawerk believed that the price formed on the market is the price at which the consumer will be able to purchase a given product in the future, but since this future is uncertain, it is necessary to constantly revise the assessment of the good. Changing the assessment of future goods leads to constant fluctuations in the prices of capital goods.

Within the framework of the positive theory of capital, O. Böhm-Bawerk understands the latter as a set of funds "productively used for roundabout methods to increase the amount of goods in the future, which can take such forms as commercial, industrial and loan capital [1]. " It should be noted that Böhm-Bawerk estimates the marginal utility of goods available in the current period to be much higher than the marginal utility of the future volume of goods. From his point of view, refusal to consume goods at the moment must be compensated by a certain reward [2].

The investment process described by O. Böhm-Bawerk clearly demonstrates that the ideas of researchers at the end of the 19th century are based on fundamentally different approaches, according to which the sphere of consumption is given a dominant role, including in the process of forming sources of investment. Authors are increasingly arguing that capital as a stock category and investment as a flow category should be determined not by the cost method, but by estimating future income, which is most clearly demonstrated in the works of I. Fisher. He believes that income represents the excess of cash flow over initially available inventory. The key form of income is interest, which permeates all economic relations, serving as a link between the present and the future. The main incentive for investment is the difference between the rate of return and the market interest rate. An increase in the rate of income, which contributes to the expansion of investment opportunities, is a consequence of scientific and technological progress.

Fisher, studying the nature of capital and interest, believes that their emergence is associated with the process of pricing, determined by the size of the money supply. Thus, we can conclude that, according to I. Fischer, investments can also arise in the sphere of circulation.

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[1]Boehm-Bawerk , O. Selected works on value, interest and capital / -M .: OOO Publishing House EKSMO, 2009. P. 76-78.

[2]O. Boehm-Bawerk relies in his theory of positive capital on the concept of abstinence proposed by W.N. Senior , who also defines interest as compensation income for the capitalist's refusal of current consumption of goods.

The argument that investment is a function of the rate of interest, and of a decreasing nature, is also reflected in the works of A. Marshall. The founder of neoclassicism, the core of which is the position of J.B. Say on the equality of supply and demand [1], considers the principle of equilibrium through the categories of investment and savings. Accumulation in the ideas of A. Marshall is the source of the birth of savings [2], which are formed as a certain excess income received from the sale of various factors of production. In his opinion, you can save from wages, rent, and profit. In the short run, savings lead to an imbalance between production and consumption. But thanks to the financial market, the size of planned investments can be equal to the amount of savings. The interest rate is a balancing mechanism between savings and investments, regulating their value. Thus, according to A. Marshall, investments can only exist in the long term. By exploiting economies of scale, firms will benefit fromquasi-rent , creating conditions that stimulate the investment process. Only equality between past and current investment costs, on the one hand, and the discounted value of future income, on the other, will ensure stationary equilibrium in the long run. It is clear that this is an ideal model, which is unrealizable in practice.

Another representative of the neoclassical movement, A. Pigou, more closely links the investment activity of business entities with the amount of money in circulation. If, according to I. Fisher, equality in the economy is ensured by the supply of money, then A. Pigou talks about money demand as a factor of equilibrium, which makes his theory more realistically reflect the motivation of economic entities in the process of accumulating savings and investments. The liquidity preference coefficient introduced into the exchange equation by I. Fisher clearly illustrates the degree of influence of accumulation on the investment activity of actors .

Neoclassical theories are characterized by a synthetic approach to the study of the investment process; they study not only the objective factors of the formation of real investments, but also the subjective, often irrational motives for carrying out investment activities by macroeconomic agents, while using the methodology of equilibrium analysis.

V. CONCLUSION/RECOMMENDATIONS

The active role of money in the system of economic relations necessitates its study as a source of investment, but from a completely different perspective, reflecting the formation of the industrial mode of production. Marginalists , and subsequently neoclassics, came closest to understanding this problem , formulating certain provisions of the microeconomic theory of investment analysis. Dealing with the problems of pricing for various goods and benefits, representatives of marginalism conclude that prices influence the process of capital accumulation and its investment. Having developed an algorithm for estimating the value of present and future benefits of the capital owner (investor), they show the mechanism for the emergence of the marginal efficiency of capital. Using a completely different research methodology,

[1]Law J.B. Say , so named by J.M. Keynes , states that the supply of a product always creates a demand for it, and, therefore, production equals consumption, income equals expenses, prices equal costs. This model is built by Say for a barter-type economy, money exists, but its functionality is very limited, money acts only as a measure of value and a means of circulation. The neoclassical school tries to apply Say's law to a monetary economy, using the mechanism of interest rates.

[2]"As opportunities for investing capital expand, there is a constant increase in the excess of production over the necessary means of subsistence, which gives rise to the ability to save" (Marshall A. Principles of Economic Science / M.: Progress, 1993.P. 302.).

namely, the tools for analyzing marginal values, marginalists formulate the key principles for constructing microeconomic investment models.

It should be noted that within the framework of the neoclassical approach, questions of the formation of macroeconomic investment models are beginning to be raised (the theory of general equilibrium of L. Walras, the social optimum according to V. Pareto, the theory of cash balances of A. Pigou , etc.), but they are based on microeconomic analysis. The authors, using the analogy method, transfer the ordinal functions of utility and productivity to the macroeconomic level, completely depriving it of specific patterns [1].

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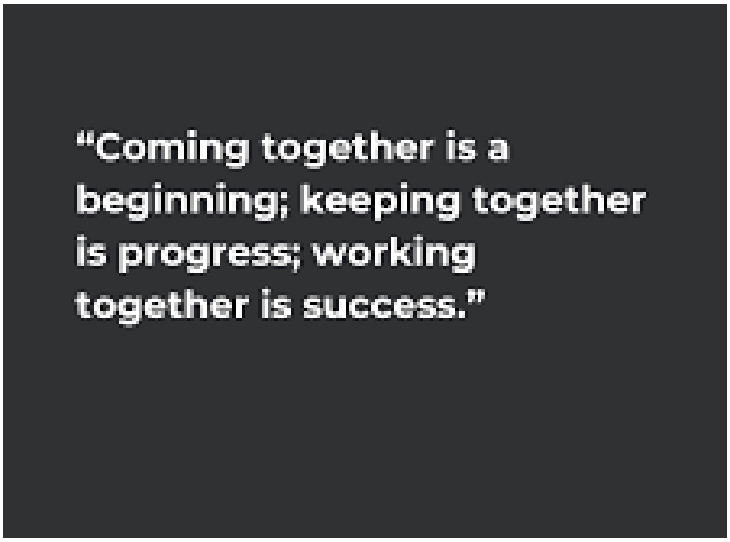

[1]Thus, according to J.B. Clark, the natural distribution of income inherent in economic entities at the micro level can also be used to substantiate conclusions of a social nature. Clark introduces two categories “social capital” and “social labor”, which are the total functions of the marginal productivity of these factors of each economic entity. Many such functions on a plane form a “zone of indifference”, which characterizes the state of equilibrium in the economy (Clark J.B. Distribution of wealth / M.: Helios ARV, 2000.P.345-380.), which is similar to the reasoning of F. Edgeworth when describing transactions between economic actors at the micro level.

PANEL ANALYSIS INNOVATIVE DEVELOPMENT OF THE REGIONS

Nuriddinov Zufar Akbarovich[1]

ABSTRACT

This article is focused on the statistical assessment of the influence of the innovative development of regions on the development strategy and offers scientific recommendations as a result of the research. As a result, the innovative development indicators of the regions were statistically analyzed and their impact on the development strategy was evaluated. In this, a model of development strategies of regional economy is proposed. In particular, the factors influencing the development of innovative potential are divided into negative and positive types.

Key words: *Statistical Indicators, Development Strategy, Statistical Assessment, Economic Indices, Technological Innovations, Innovative Area.*

Introduction

Innovative development is considered to be the main direction to overcome and recover the losses in the economy of the world countries during the COVID-19 pandemic. The unprecedented global crisis caused by the outbreak of COVID-19 has prompted a reactivation of the critical focus of innovation in order to mitigate the profound negative impact of the pandemic on the economy and restore growth, and has called for countries around the world to embrace innovation like never before. While the crisis has naturally sparked interest in innovative healthcare solutions, it has also activated other areas such as remote work, distance learning, e-commerce and mobility solutions.

Investment in innovation in the global economy reached its pre-pandemic high in 2019, boosting research and development (R&D) by 8.5 percent. When the pandemic began, the big question was how it would affect innovation. Historical evidence points to a sharp decline in innovation investment.

However, despite the human toll and economic shock caused by the pandemic, scientific production, R&D spending, internet protocol filings and venture capital deals continued to grow in 2020, building on pre-crisis highs. Specifically[1]:

In 2020, the publication of scientific articles worldwide increased by 7.6%;

In 2020, state budget allocations for research and development continued to grow. The top global corporate R&D spenders for which data is available increased total R&D spending by approximately 10% in 2020, with 60% of R&D-intensive firms reporting growth;

International patent applications through the World Intellectual Property Organization hit a record high in 2020 by growing 3.5 percent, driven by medical technology, pharmaceuticals and biotechnology;

[1] Doctor of philosophy (PhD) in Economic Sciences, Independent Researcher of The Institute of Personnel Training and Statistical Research. Tashkent, Uzbekistan.

venture capital deals grew 5.8 percent in 2020, higher than the average growth rate of the past 10 years. Strong growth in the Asia-Pacific region more than offset declines in North America and Europe. Africa, Latin America and the Caribbean also recorded double-digit growth.

Firms whose innovation has been at the heart of the pandemic and its response, particularly software and information and communication technology (ICT) services, ICT hardware and electrical equipment, pharmaceuticals and biotechnology, have strengthened their capabilities, and investments have been made in the innovations that have been created.

In the study, a statistical analysis of the fulfillment of the tasks assigned to the normative legal documents adopted by the President of our country in this field is made, and an assessment is made of the achievement of the goal set in the field.

It can be seen from the above-mentioned global changes in the world, that is, the attention paid to innovative development, that now it is appropriate to emphasize the innovative development of regions for the strategic development of the country's economy. Taking into account these circumstances, it is important to analyze the regional innovation indicators and to study the effects of the conclusions and proposals on the tasks set for the country's development strategy.

Literature review

In order to statistically assess the impact of the innovative development of regions on the development strategy, we studied the researches conducted by scientists of a number of countries of the Commonwealth of Independent States, scientists of our country and scientists of foreign countries , and we carried out our own research.

From scientists of foreign countries:

Sumitra Dutta, the author of the annual Global Innovation Index published by the World Intellectual Property Organization (Soumitra Dutta), is designed to provide the most complete picture of innovation. created a comprehensive rating system and improved these indicators in other research works[2,3,4].

Stefan Hittmar, Michal Varmus, William Lendel, in the article entitled "Evaluation system of successful application of innovation strategy through a set of indicators", proposed a suitable system of indicators for successful application of innovation strategy, taking into account different stages of the innovation process[5].

Researchers such as Ekaterina Kharchenko, Elena Alpeeva, and Olga Ovcharova proposed a system of indicators describing the innovation potential of the region in the research work entitled "Innovative potential of Russian regions: methodological aspects of analysis and development trends"[6].

From scientists of the countries of the Commonwealth of Independent States:

National Research University "Higher School of Economics", Institute of Statistical Research and Knowledge Economy andScientific researchers of the Russian cluster observatory annually publish the "innovative development rating of subjects of the Russian Federation" summarizing the system of innovative development indicators[7].

Burtseva T.A., Sotnikov A.A., Sukhinin I.V. in his monograph on the topic "Formation of the regional innovation system of the Kaluga region", he proposed a system of indicators for the formation of the innovation system[8].

Bortnik I.M., Senchenya G.I. and others proposed the components of the innovative development index of Russian regions in the article entitled "Evaluation and monitoring system of innovative development of Russian regions"[9].

From the scientists of our country:

D.Kh.Shadieva completed her doctorate in economics on the topic of "Improving the theoretical foundations of investing in the innovative development of the national economy" and analyzed the indicators representing the innovative development of the national economy[10].

Z.A.Nuriddinov completed his doctorate in economics on the topic "Statistical evaluation of the innovative development of the regional economy and investment attractiveness", in which the innovative development indicators of the regions were analyzed, relevant econometric models were created, and as a result, scientific conclusions and practical suggestions were made[11,12].

The above-mentioned and other scientific research works serve as an important basis for the analysis of the system of statistical indicators representing the innovative development processes of the regions and the theoretical and practical scientific study of the problems of statistical evaluation of the innovative development. However, based on these studies, in the period of the current development strategy, the scientific article envisages connecting through the innovative environment, taking into account the innovative indicator in the monitoring of the developed strategies, and improving the system of innovative development indicators.

Research methodology

In this article, the evaluation of the influence of innovative development of regions on the development strategy is carried out on the basis of statistical methods and econometric models. Economic indices, statistical grouping, Sterjess formula, relative and absolute quantities, average quantities, mode, median and variation indicators were used from statistical methods.

Using econometric methods, double-factor mathematical expressions were used, and econometric models relevant to practice were developed.

A linear pair regression model represents the relationship between Y and X:

$$y_t = \alpha + \beta x_t + u_t$$

where: $\alpha$and β– model parameters;

u_t– random variable (residual amount);

y_t- the resultant symbol and x_t- the factor symbol;

Results

Creating innovations in the economy of regions in the world and thereby increasing investment attractiveness is a complex process that covers all aspects of the economy. It includes the collection, analysis, monitoring and use of innovative ideas, innovative opportunities, knowledge and other components of the enterprise's innovative potential and innovative strategies for the statistical assessment of innovative development in the regional economy.

Improvement and implementation of the methodology of statistical evaluation of innovative development in the economy is complicated by the fact that there is no mutual integration of regions by types of statistical data on innovations, innovative ideas and opportunities.

In the decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PF-4947 "On the strategy of actions for the further development of the Republic of Uzbekistan", the task of developing this direction was also set. In particular, tasks such as "promoting research and innovation activities, creating effective mechanisms for implementing scientific and innovation achievements, establishing specialized scientific and experimental laboratories, high technology centers and technology parks at universities and research institutes"[13] completed in the last five years.

In this regard, the complex economic situation of our country and the consistent reform of the sectors required the liberalization of our country in proportion to its economic isolation and innovative growth indicators.

Based on this, if we analyze the change of indicators representing the development of scientific research and innovation activities in the country and its regions, we can see to what extent the tasks set in the Strategy of Actions have been fulfilled in the last five years.

The indicator that serves as the main factor in innovative development is the change in the number of researchers in the country and the innovative products created by them.

Therefore, if we analyze the number of researchers (senior researcher-researcher, basic doctoral studies and doctoral studies), in 2017-2021, compared to 2012-2016, it increased almost 2.3 times, that is, in the last five years, 7856 people increased. The number of those who received a diploma after conducting independent research increased by 5.1 times, i.e. to 2819 people.

In this regard, when we analyze the researchers in our country by field of science, in 2016, 26.9% of total researchers were from natural sciences, 23.8% from social sciences, 14.8% from humanities, 14.6% from medical sciences, 12.5% from technical sciences. and 7.4 percent were accepted for research in agricultural sciences, and by 2021, 23.8 percent from natural sciences, 22.6 percent from social sciences, 16.2 percent from humanities, 12.9 percent from technical sciences, 12.5 percent were accepted for research from medical sciences and 12.0 percent from agricultural sciences.

In 2016, 29.8 percent of those who independently conducted research and wrote a scientific work in a certain field received a diploma in medical sciences, 27.6 percent in social sciences, 19.5 percent in natural sciences, 10.8 percent in engineering and humanitarian sciences, and 1, 5 percent agricultural sciences. By 2021, 26.8 percent of social sciences, 20.9 percent of medical sciences, 19.5 percent of natural sciences, 19.1 percent of humanities, 9.7 percent of technical sciences, and 4.0 percent of agricultural sciences who did [14,15].

As a result, innovative activity is increasing year by year. We can see this by the number of technological innovations introduced in Table 1 below, by region.

Table 1 : Number of introduced technological innovations, in units

The name of the republic and territories	2012 year	2013 year	2014 year	2015 year	2016 year	2017 year	2018 year	2019 year	2020 year	2021 year	Change in 2021 compared to 2012, bar
Republic of Uzbekistan	**624**	**1262**	**1382**	**1737**	**1816**	**1946**	**2482**	**4427**	**4011**	**3936**	**6.3**
Republic of Karakalpakstan	4	54	60	41	32	29	14	65	17	6	1.5
Andijan	10	16	18	61	104	160	104	90	66	36	3.6
Bukhara	27	53	76	67	98	110	64	175	336	288	10.7
Jizzakh	14	40	19	48	44	26	27	97	128	38	2.7
Kashkadarya	2	16	29	12	8	17	10	125	34	148	74.0
Navoi	92	128	160	99	194	158	295	546	392	506	5.5
Namangan	10	22	20	52	52	131	109	140	221	146	14.6
Samarkand	5	22	29	92	96	113	66	64	204	185	37.0
Surkhandarya	9	65	92	109	87	99	102	167	150	108	12.0
Syr Darya	5	60	109	64	90	82	88	269	111	134	26.8
Tashkent	169	68	173	216	200	219	291	623	635	311	1.8
Ferghana	17	78	128	131	203	258	181	293	234	261	15.4
Khorezm	-	19	17	26	23	33	12	36	20	29	29.0
Tashkent.sh	260	621	452	719	585	511	1119	1737	1463	1740	6.7

The number of technological innovations in our country increased by 6.3 times from 2012 to 2021, which consists of innovations introduced in products and innovations introduced in technologies. During this period, product innovations in our country increased 10.5 times, the share of technological innovations increased from 46.5 percent in 2012 to 77.1 percent by 2021, technological innovations increased 2.7 times, and technological innovations increased by 2.7 times. share decreased from 53.5 percent to 22.9 percent, respectively. It can be seen that the area that made a high contribution to the increase in the number of technological innovations is the number of innovations introduced by products. Organizational models have also played a role in technological innovation in recent years.

If we analyze it by regions, if we divide it into statistical groups according to changes during this period, Kashkadarya region has a 74.0 times increase in the "very high change" group, Samarkand 37.0 times, Khorezm 29.0 times, and Syrdarya 26.8 times in the "high change" group. growth and the "medium change" group had an increase of 1.5-25.7 times in the Republic of Karakalpakstan, Tashkent city, Andijan, Bukhara,

Jizzakh, Navoi, Namangan, Surkhandarya, Tashkent and Fergana regions. However, according to the share of regions in the Republic in technological innovations, the regions with the highest contribution in 2021 are: Tashkent city 44.2%, Navoi region 12.9%, Tashkent region 7.9%, Bukhara region 7.3% and Fergana region 6.6% has a share. The name of the regions with the highest share in the period 2012-2021 has remained almost unchanged.

Marketing innovation is the next area that affects innovation activity in the country, and this area has been implemented in a few regions. For example, in 2012, the number of marketing innovations in our country was introduced in 17 regions (9 in Tashkent city, 6 in Tashkent region, 1 in the Republic of Karakalpakstan and 1 in Andijan region), and by 2021 it increased to 145 (Tashkent city 133, Tashkent region 6, Samarkand region 2, Republic of Karakalpakstan 1, Namangan region 1, Khorezm region 1 and Fergana region 1). The most implemented marketing innovation during this period was 2020, with 202 new practices implemented.

The number of organizational innovations, like marketing innovation, did not have a high growth rate during the period 2012-2021. It has also been introduced in a number of regions in the area of regions. In particular, innovations in these directions were introduced in Tashkent city, Tashkent region, Navoi region, Fergana region, Namangan region and Khorezm regions.

According to the above statistical analysis, the main share of innovations introduced in the country corresponds to the number of technological innovations. The following figure 1 shows the number of news in this area by region.

As can be seen in the figure, the number of technological innovations introduced in the regions was higher in 2017-2021 than in 2012-2016. For example, in the following regions, in the following regions, Kashkadarya region 5.0 times, Namangan region 4.8 times, Bukhara region 3.0 times, Navoi region 2.8 times and Samarkand region 2.6 times higher than the national indicator (2.5 times) growth was observed, and the same change was observed in the city and region of Tashkent as in the republic. This means that innovative activity has increased as a result of the fulfillment of the tasks set in the Decree of the President of the Republic of Uzbekistan dated February 7, 2017 "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan" No. PF-4947.

As a result, the number of technological innovations introduced in networks is increasing year by year. The share of technological innovations introduced in our country in the types of economic activity is shown in Table 2 below.

Table 2 : The share of technological innovations in economic activities in the country,

in percent

Types of economic activity	2012 year	2013 year	2014 year	2015 year	2016 year	2017 year	2018 year	2019 year	2020 year	2021 year
Total technological innovation	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Agriculture, forestry and fisheries	0.2	2.0	2.0	1.3	1.2	0.9	0.1	1.2	2.0	0.8
Industry	42.3	52.7	60.6	49.9	53.7	60.7	56.2	71.4	60.9	51.4

including:										
mining and open pit perations	7.4	8.6	8.0	4.1	6.6	1.4	1.2	2.0	1.8	1.5
manufacturing industry	34.5	43.2	51.6	44.2	45.8	58.0	53.9	68.7	58.8	49.6
Electricity, gas, steam supply and air onditioning	0.0	0.1	0.1	0.7	1.0	0.9	0.5	0.1	0.1	0.2
Water supply; sewage system, waste collection and disposal	0.5	0.8	0.9	0.9	0.4	0.3	0.6	0.6	0.2	0.2
Construction	2.7	9.4	3.5	3.3	2.1	3.2	0.8	2.4	6.2	5.0
Services	54.0	33.8	32.8	44.6	42.5	34.8	42.7	23.5	29.0	40.9
Other types of economic activity	0.8	2.1	1.2	1.0	0.5	0.4	0.2	1.5	1.9	2.0

2012-2021, the contribution of technological innovations introduced in the country in the types of economic activities corresponded almost to the shares of industry and service sectors.

The share of technological innovations introduced into the industry increased from 42.3 percent in 2012 to 51.4 percent in 2021. The percentage of technological innovations introduced in this field was 51.5 percent on average in 2012-2016, and 59.8 percent on average in 2017-2021 as a result of the implementation of the tasks set in the Action Strategy adopted in our country. In the service sector, it fell from 40.8 percent to 33.4 percent, respectively. Its share in agriculture, forestry and fisheries and construction remains very low. Through the introduction of technological innovations in the production sector of the industrial network, it served to gain a significant share of this network.

These statistical analyzes show that it is necessary to see how the innovations introduced in the regions had an impact on the economy of the region. We will do this with the help of econometric models. Taking into account that the statistical base of indicators of innovative development is not sufficient to construct multi-factor econometric models, we implement these models using double-factor models.

The following indicators were selected as factors in the econometric models in Table 3.

- Gross regional product growth rate *(GDRP)*, in percent
- Innovative activity (technological, marketing and organizational innovations) *(IA)*, in unit;
- Number of researchers (basic doctoral students, doctoral students, independent researchers) *(RN)*, people;
- Volume of innovative products, works, services produced by own power (VAT and excise tax excluded) *(INNO)*, million soums;
- Spending on technological, marketing and organizational innovation*(MIEx)*, million soums.

The coefficient of these econometric models and the mathematical representation of the model's reliability argument are presented in the table below.

In the course of statistical analysis, it was determined that innovation activity was the result factor in the Republic of Karakalpakstan, Bukhara region, Fergana region, Khorezm region, and Tashkent city, while the factor indicators were, respectively, spending on technological, marketing and organizational innovations in the Republic of Karakalpakstan, the number of researchers in Bukhara region (basic doctoral students, doctoral students, it was found that there is a strong correlation between the volume of innovative products, works, and services produced independently in the rest of the regions.

In the econometric models presented in Table 3, the resulting indicators were chosen differently in different regions. That is, models were created based on the interdependence of these factors and the characteristics of the regions.

In the Republic of Karakalpakstan, spending on technological, marketing and organizational innovations, the number of researchers (basic doctoral students, doctoral students, independent researchers) in the Bukhara region, Fergana region, Khorezm region and Tashkent city by 1% increase in the volume of innovative products, works, services produced by their own power, correspond to innovative activity. means that it will increase by 0.30 percent, 0.76 percent, 0.46 percent, 0.39 percent and 0.43 percent, respectively.

Table 3 : Econometric models of innovative development of regions

No	Name of regions	Ln(GDRP)	Ln(IA)	Ln(RN)	Ln(INNO)	Ln(MIEx)
The resulting factor is innovative activity						
1.	Republic of Karakalpakstan	-	Y	-	-	0.301(0.123) R^2=0.43 F=6.02(0,040)
2.	Bukhara region	-	Y	0.762(0.143)* R^2=0.78 F=28.5(0.001)	-	-
3.	Ferghana province	-	Y	-	0.462(0.101) R^2=0.72 F=20.9(0.002)	-
4.	Khorezm region	-	Y	-	0.392(0.102) R^2=0.65 F=14.7(0.005)	-
5.	Tashkent city	-	Y	-	0.426(0.090) R^2=0.74 F=22.6(0.001)	-
The resulting factor is the gross regional product						
1.	Andijan region	Y	-	-	2,454(1,345)* R^2=0.29 F=3.33(0.005)	-
2.	Kashkadarya region	Y	-	0.011(0.005) R^2=0.36 F=4.52(0.066)	-	-
3.	Navoi region	Y	-	0.033(0.013)** R^2=0.46 F=6.67(0.033)	-	-
4.	Samarkand region	Y	-	-	-	-0.014(0.005) R^2=0.48 F=7.27(0.027)

5.	Surkhandarya region	Y	-0,03(0,012) R^2=0.45 F=6.42(0.035)	-	-	-
The resulting factor is the volume of innovative products						
1.	Jizzakh region	-	1,048(0,322)* R^2=0.57 F=10.61(0.012)	-	Y	-
2.	Tashkent region	-	1,221(0,285) R^2=0.70 F=18.3(0.003)	-	Y	-
3.	Namangan region	-	1,824(0,329)* R^2=0.79 F=30,80(0,001)	-	Y	-
4 .	Syrdarya region	-	-	0.503(0.089) R^2=0.80 F=31.9(0.000)	Y	-

In Andijan, Kashkadarya, Navoi, Surkhandarya and Samarkand regions, it was found that there is a strong correlation between innovative development indicators and gross regional product, and the growth of innovative development indicators causes a change in gross regional product. In particular, a 1% increase in the volume of innovative products, works, and services produced by own power in Andijan region, and the number of researchers in Kashkadarya and Navoi regions, will lead to an increase in the growth rate of the gross regional product in this region by 2.45%, 0.011%, and 0.033%, respectively. studies show.

Conclusions and suggestions

Based on the results of the research conducted above, conclusions and suggestions were developed on the directions for improving the following statistics and stimulating the innovative development of the region.

- Improving the items in the statistical observations "Monitoring the impact of the results of innovations introduced as of January 1, 2022" and "Monitoring innovative activity for 2021" in order to calculate indicators showing innovative activity;
- Improvement of the statistical reporting forms in the 1st innovation "2022 report on innovation activities" with the purpose of calculating the "volume of innovative products created by implementing the innovative development strategy in regional organizations and enterprises" by including items related to it;
- For the purpose of innovative development of each region, to create an "innovative region" in these entities and to provide privileges and preferences for the purpose of developing innovation in them;
- Adoption of production technologies of innovative products that create high added value in districts being transformed into "innovation area";
- Adoption of production technologies of innovative products that are 50% cheaper than existing analogues and create 2-3 times higher added value compared to the price of high-quality raw materials in districts that are being transformed into "innovative regions";
- Improvement of the methodology of statistical assessment of innovative development of regional economy and strategic development programs of regions;

- To further strengthen the activities of youth innovation centers, monocenters, innovative vocational training centers, technological parks of traditional products and information technologies for the purpose of innovative regional development;
- Harmonization of national legislation in the field of science and innovation with generally recognized international norms;
- Application of international standards in the national patent system;
- Ensuring the integrity and protection of intellectual property;
- Support for scientific research, increase the transparency and competitiveness of the national innovation system;
- Attracting global leading innovators by creating favorable conditions for their activity in the republic, as well as creating a world-class innovation protection system;
- Improving the position of Uzbekistan on the low indicators recorded in the global innovation index;
- Creation of wide opportunities for the implementation of innovative projects in all areas, introduction of modern mechanisms for supporting research and innovative initiatives;
- Creation of a "barrier-free environment" system that contributes to the development and formation of human potential corresponding to innovations in educational institutions;
- Directing the training of personnel and specialized specialists (evaluators, patent specialists, marketers, etc.), as well as managers who have innovative thinking and creativity, who are able to actively promote their innovative ideas, especially for state bodies, in higher education institutions;
- Development of cooperation with international organizations in the field of innovation, creation of scientific research centers for international enterprises and activation of international scientific and technical cooperation in accordance with the development trends of the world technology market;
- The implementation of these priorities in the regions will create the basis for Uzbekistan to rise to a high place among the countries of the world according to the ranking of the global innovation index. This, in turn, creates a basis for a positive solution to the tasks set in the development strategy.

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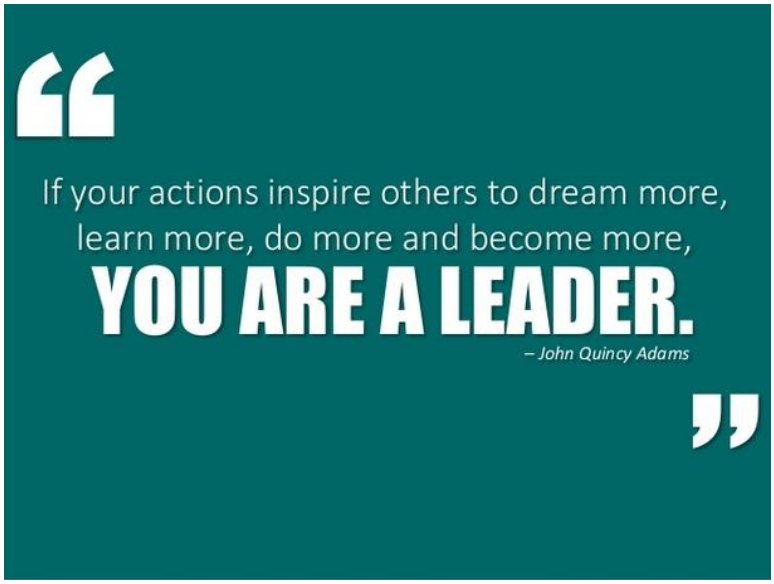

THE ECONOMIC POTENTIAL OF AGRICULTURAL ENTERPRISES AND ITS COMPONENTS

Khakimov Tulkin Halimovich[1]

ABSTRACT

Increasing the economic potential of agricultural enterprises, developing the production of high-value-added products in the industry, providing the country's industry with raw materials and the population with high-quality food products is important at the present stage of economic reforms. Based on this, this article analyzes the components of the economic potential of agricultural enterprises.

Keywords: *Agriculture, Enterprise, Potential, Economic Potential, Reserve, Opportunity, Financial Potential, Agrarian Policy.*

Introduction. The pace of development of the world economy testifies to the strategic importance of organizing the economic activities of agricultural products as one of the main factors in ending the widespread poverty and famine in many regions of the planet as a result of all spheres and fronts of human society, especially global climate change, as well as providing services to them in different directions

As one of the important strategic sectors, the mission of Agriculture is to ensure food security in the country, as well as globally. According to the international consulting company Goldman Sachs, the UN has a world population of 9.8 billion by 2050. predicts that it will reach a person, for this it is necessary to increase the volume of food production by 70 percent. A number of prestigious international organizations, such as the UN, the IMF, the World Bank, emphasize that the food crisis in the world becomes more entangled, for this it is necessary to develop agriculture steadily, to consistently introduce innovations into the industry, to further revive research.

In modern conditions, the issues of monitoring the current state of economic entities, assessing and analyzing the use of existing resources, developing and implementing effective management solutions are of particular relevance and practical importance.

The trend of development of the world economy testifies to the fact that as one of the main factors in ending the growing poverty and famine in all spheres and spheres of human society, especially in many regions of the planet under the influence of global climate change, the organization of economic activities of the agricultural producers, as well as those, continuous improvement of this process is becoming a requirement of the period. The development of the agricultural sector plays an important role in the development of the economy.

Thus,the growth of agricultural production can have a large multiplicative effect in promoting the growth of industrial production *(Nurmukhammidova, 2021).*Studies show that a $ 1 increase in agricultural production leads to a $ 1 increase in production in other sectors and sectors of the economy as well, while a $ 1 increase in production in other sectors of the economy provides a $ 0.18 increase in agriculture. These

[1] Tashkent Institute of Textile and Light Industry, independent researcher

multipliers of agricultural growth are usually observed to be high in low-income countries, since in these countries the main share of the industrial sector (processing agricultural products) and the services sector are considered to be largely dependent on the agricultural community.

In the conditions of an increasingly severe turn of economic reforms, the issues of monitoring the current state of business entities, assessing and analyzing the use of existing resources, developing and implementing effective management solutions are becoming more and more relevant. One of the most pressing problems for a modern enterprise in the context of a changing market environment is the ability to maintain a level of competitiveness and ensure the activity of the enterprise.

The problems of the effectiveness of the activities of agricultural enterprises largely depend on the level of their use of the existing potential, which in turn assumes the use of methods of economic analysis that allow you to employ the internal beliefs of the enterprise, search for hidden reserves and resources.

The relevance of the problem raised in this article is again important in that today there are no perfect methodological developments that allow agricultural enterprises to analyze their economic potential.

Literature review (review of methodological materials).

In the economic literature, the concept of “financial potential” is widely considered as the development of the total financial capabilities of the state, territory, enterprise, household.

In particular, from our local economist – scientists.M. Pardayev defined financial potential from the point of view of enterprises as a set of financial resources composed of various sources that fully ensure its activities *(Pardayev,2002).* F.Zulunova is recognized as the financial potential of enterprises, as a set of financial resources composed of various sources (self-funds and foreign attracted funds, that is, obligations)that fully ensure its financial economic activity, that is, all economic processes that occur in it *(Zulunova, 2008).*

In this, all processes related to financial potential are unilaterally covered, characterized by financial resources at the micro level. The category of financial potential of enterprises L. .Buranova argues that”financial potential is the enterprise's own private and involved financial resources, and it has the right to dispose of its current and future expenses”*(Buranova,2020).*

Belarusian specialists V.Plaksin and A.Poleshuk – ”those who recognized the financial and economic potential of the enterprise not as the sum of the components that make up it, but as the sum of the elements of a complex, interconnected system of capacities, as if they were in any production system”*(Plaksin, Poleshuk, 2013).* In contrast to the above, L.Sukhova-in her publication”Financial potential of an enterprise: concept, content, methods of measurement“, connects the financial potential of enterprises with the concept of”Enterprise Finance”and expresses its emergence in the process of formation, distribution and use of the financial resources of an enterprise as an economic relational system”*(Sukhova,2016).*

In the context of characterizing economic potential as the material basis of economic activity, V. N. Shukov distinguishes the following components of economic potential: natural-resource; environmental - economic; production; innovative and educational (intellectual); labor (personnel) potential *(Shukov,2002)*.

In the textbook “Finance and taxes”, published under B. Khasanov's edit, it is noted that the economic potential of the enterprise consists of such organizers as production, frame, intellectual, financial, management. Such a classification allows, in the analysis of economic potential, to group such factors as

external conditions of activity of the enterprise, technical and economic description of resources, labor resources of the enterprise,financial resources, methods of economic management*(Khasanov et al., 2023).*

Analysis of literature on the topic shows that the issues of economic potential of agricultural enterprises are not studied in detail. From this, we will dwell on the theoretical aspects of the economic potential of agricultural enterprises in this article.

Research methodology.

The article promotes the theory and practice of organizing economic analysis of domestic and foreign scientists and specialists, the implementation of analytical actions for assessing financial data for managerial purposes, and author's views on the problem under study, based on the recommendations of domestic and foreign research institutions.

In order to clarify the organizers of the economic potential of agricultural enterprises, methods such as grouping, comparison, graphing, factor analysis were used in this article.

Analysis and results discussion.

Ensuring successful and effective management of agricultural enterprises requires a competent and balanced approach to managing agricultural production, which is largely determined by the ability to analyze the results of production processes and operations.

In economics, various district methods and tools have been developed to assess the influence of factors on the indicators studied, summarize and study analytical information, and today these tools and methods are widely used in practice.

Economic analysis, as an integral component of the management process, provides a quantitative and qualitative assessment of the changes taking place in the managed object; helps to timely identify trends in the development of negative and positive phenomena by the management subject, which, in turn, provides the opportunity to prevent negative processes, further revitalize positive processes.

The subjects of economic analysis are the owners and leaders of the managed object, external users who are directly and indirectly interested in economic cooperation with the economic entity.

The information base of economic analysis is made up of a whole Information System about the activities of the management object, which includes various external sources of information and also internal information arrays of the enterprise.

The methodological approach to the implementation of analysis determines the procedure for conducting analytical research, the rules and sequence of using analytical methods of working on a particular object. The purpose of the methodological approach is to develop recommendations for the implementation of analytical processes at all stages of analysis, which will be necessary to help determine and determine possible ways to improve the managerial impact on the activities of the object.

Although in the theory of economics the concept of “organizational and economic mechanism” is often expressed through a broader category – the concept of “economic mechanism”, Economist scientists cannot come to a halt in this regard, their views differ from each other, depending on the field of scientific research. The interdependence of the concepts under study can be established on the basis of a detailed study of the content of each of them and the development of theoretical approaches to this. This in turn makes it possible

to interpret the organizational and economic mechanism in content, clarify its specifics and clarify its role in the development of modern agrarian policy.

Today, the similarity of the specific aspects of this category, expressed as the totality of the form, methods and rules that determine the independent validity of the object in order to achieve the goals envisaged in a large number of studies on the issues of the organizational and economic mechanism, is noticeable.

The scientific significance of clarifying the theoretical and practical aspects of the organizational and economic mechanism is explained by the following factors:

- The absence of a comprehensive approach and scientific contradictions in the interpretation of the multifunctionality of Agriculture and the problems of the development of scientifically based organizational, production, economic, economic and social structures;
- Insufficient development of the methodology for ensuring the necessary conditions for the development of Agriculture and implementing the rules for regulating issues of food security, social and environmental development of rural areas.

A generalization of special literature suggests that most authors include the following in the composition of the main founders of the organizational and economic mechanism:

- System of property relations and the main means of production;
- The organizational structure of the economy, that is, the system of formal and informal organizational relations that form real economic relations between entrepreneurial entities;
- The system of social institutions that define the spiritual and information sphere of economic activity;
- Economic means;
- Ecomarketing, ecomonitoring, ecoudit, ecomenegment;
- Control over the implementation of the set goals;
- Legal basis for the implementation of economic activities;
- Social sphere, social levers, etc.

The organizational and economic mechanism should be considered as a multifunctional system that involves the use of:

- A set of methods, norms and rules for organizing cost-effective work, increasing their flexibility in relation to factors of the external environment and competitive conditions;
- Forms and methods of organizing entrepreneurial activities that allow the rational organization of relations between owners, managers and hired employees, the achievement of harmony of interests, the implementation of mission, goals and strategies;
- The totality of specific methods, principles of economic management, various organizational and economic tools, methods of Management in a market environment, levers and methods of promotion, which ensure stable functioning.

- Usually, the following are included in the order of the functions of the organizational and economic mechanism:
- Prediction and planning of innovative and investment potential;
- Organization, promotion and control of sustainable development;
- Coordination and regulation of production and socio-economic development;
- Monitoring innovative development.

Today, a lot of experience has been accumulated in the theory and practice of managing the economic potential of economic entities, which rightfully requires the development of theoretical and organizational and methodological rules for assessing and analyzing the potential of enterprises of various types of economic activity, determining the factors determining its status and development prospects*(Salixova,2011)*.

The study of the economic potential of enterprises as an object of scientific research has generated a number of discussions among the scientific community, which in turn presupposes a further determination-resurrection of the content of the concept of “economic potential of the greenhouse”.

The word” potential “is etymologically derived from the French word” potential “and literally translated means” to be strong“, while on the other hand it is mentioned that it comes from the Latin word” potentia “and is interpreted as ”power".

In the Explanatory Dictionary of the Uzbek language, “potential” is interpreted as suitability, Authority, judgment, full power, ability, talent. In our opinion, it would also be appropriate to use the concepts of resource, additional resource and opportunity in describing the concept of “potential” in this place.

In the general case “ "capacity" refers to the resource, capacity, means and tasks that can be used to solve a task or achieve a set goal (*Akramov,2024*). Potential in a private sense is a possible level of manifestation of any action, any function. In a broad sense, capacity is a set of factors that are directed in order to achieve a certain result. We can characterize potential as the ability of material resources to move from one state to another without binding to a particular sphere. Alternatively, capacity is also a measure of the result that can be used in a particular goal path, that is, achieved under certain conditions*(Yuldashev,2023)*.

A wide interpretation of the semantic content of the term "potential", the view that the word goes about what strength, means, reserves, resources, allows it to be used in various areas of science and practice (*Uskova,2006*).The potential category used in modern science includes two main aspects. Firstly, the understanding of the term” capacity "is by nature related to the concept of “resources", and secondly, capacity includes the capabilities of the economic subject in terms of the development, improvement and effective use of resources *(Abduvoxidov, Matkuliyeva 2023)*.

In the economic literature, the concept of “potential” is widely used in the quantitative assessment of various phenomena and conditions, such as natural, investment, intellectual, resource, labor, economic potential (*Asaul,2011*).The concept of “potential” in relation to a separate enterprise should describe to what extent the integrated capabilities of the enterprise serve to meet the needs of consumers, not only in terms of production opportunities, but also in the rational use of resources, taking into account the interests of state and business partners. In clarifying the essence of the category "enterprise potential", the following aspects are distinguished: property belonging; ability to solve certain tasks; continuous movement of structural

elements and orientation towards general growth (*Logosha,2020*).The economic potential of the enterprise is also the process of using them in order to achieve a holistic assessment of the potential and economic effect, which is based on the resource potential. Economic potential ensures the effective use of resource potential based on the concentration of necessary resources. We consider the economic potential of the enterprise in accordance with the current conditions of the new changing external environment of the enterprise.

A. O. Sheremetev noted that the content and essence of the economic potential of the enterprise is determined based on the priorities of the formation of competitive advantages of the enterprise, its development, in which he proposes to use the following approaches to clarify the essence of the economic potential of the organization:

1) General opportunities for product production;
2) The totality of available resources;
3) The result of economic and production relations between the subjects of economic activity(*Sheremetyev,2008*).

The study of the economic potential of an enterprise involves considering the totality of material, intangible resources and processes of their transformation, which are systematically organized in order to achieve final results.

An analysis of the approaches advanced by domestic and foreign scientists on the economic potential of the enterprise makes it possible to draw the following conclusions:

1. An important feature of almost all approaches is their orientation towards a resource-based understanding of economic potential, which, in our opinion, determines the specifics of the formation of economic potential depending on the network dependence of the enterprise. Due to the specifics of the network, the structure of the economic potential of modern enterprises can vary greatly;

2. In determining the essence of economic potential, the focus is mainly on assessing the existing capabilities of the enterprise, the level of its achieved potential or the desired results.

In our opinion, it would be appropriate to look at the economic potential of an enterprise in a certain period as an opportunity to ensure a certain qualitative and quantitative result of it. At the same time, when assessing the economic potential of an enterprise, it is also advisable to take into account its real potential in the near future in terms of increasing the achieved results and ensuring stable capital growth;

3. The external environment of business has a significant impact on the interconnection of the scale of economic potential and its structural elements. Today, the importance of the economic potential of each enterprise is increasing as one of the factors determining the ability of an economic entity to adapt to the conditions of a market economy. The concept of “innovative potential” of the enterprise has entered into practice today due to the need to adapt to the conditions of the ever-changing market environment, the strengthening of the competitive struggle between enterprises in the market. Innovative components of activities in the complex of economic potential serve to change the sphere of production activities of the enterprise, increase the efficiency of the use of human resources.

A number of researchers who have conducted research on economic potential believe that it is worthwhile to research economic potential in time and space. In their opinion, the reserves and resources created in the past will lay the groundwork for the growth of the enterprise in the future (Figure 1).

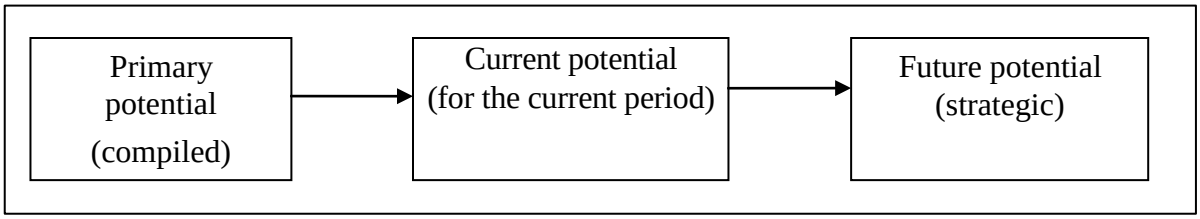

Figure 1. Time-related manifestations of economic potential

Source:author development.

Analysis of the forms of economic potential presented in Figure 1 makes it possible to draw conclusions on whether it corresponds to the three main approaches to clarifying economic potential described in Table 1:

- Primary potential considered on the basis of the resource approach ;
- Foreseeing the use of a consequential approach-current capacity;
- A strategic approach based on a strategic approach.
- In our opinion, the aspects mentioned in Figure 2 allow us to clarify the main aspects of economic potential.

Table 1 : Accounting analysis tasks of economic capacity analysis and its organizers

The form of manifestation of economic potential	**The essence of economic potential**	**Types of economic potential**	**Interpretation of authorship**	
			Clarification of the essence of economic potential	**Accounting and analytical tasks of economic potential**
Represents the relationship and interaction of resources	A set of available resources characterizing the capabilities of the system to carry out targeted activities	Resource, natural, production, technical	Specific relationships under the influence of objective and subjective factors of business	Development of a system of indicators for assessing production potential
Reflects property status	Existing production factors, reserves and opportunities that ensure the planned volume of activity	Property, production, labor, personnel	Labor potential acts as the main generator of the implementation of economic potential	Development of an information and analytical model of Labor potential and assessment criteria

Reflects financial status	The capital of the enterprise, its structure, financial stability and opportunities to create profitability	Financial	Financial structure and its acceptability as a guarantee of achieving strategic goals	Development of an algorithm for assessing financial potential and recommendations for optimizing capital composition
Reflects the level of economic relations	System of management and relationship relations	Management, information	The mechanism of respect and its elements	Justification of the management potential model and Criterion indicators of its assessment
Includes opportunities to create targeted activities and future effects	Hidden reserves and the ability of the enterprise to create sustainable business growth	Market, marketing, strategic, innovative	Market stability, competitiveness of activities	Development of methods for assessing the market potential and its integral indicator

It is advisable to study economic potential in connection with production relations, which are characteristic of each socio-economic system that occurs between individual employees, labor teams and the management apparatus as a whole. This relationship connects the enterprise with the external environment and is characterized by the possibility of the enterprise and its orientation towards the implementation of the effective use of the team's capabilities for the production and sale of competitive products, the performance of work and the provision of services.

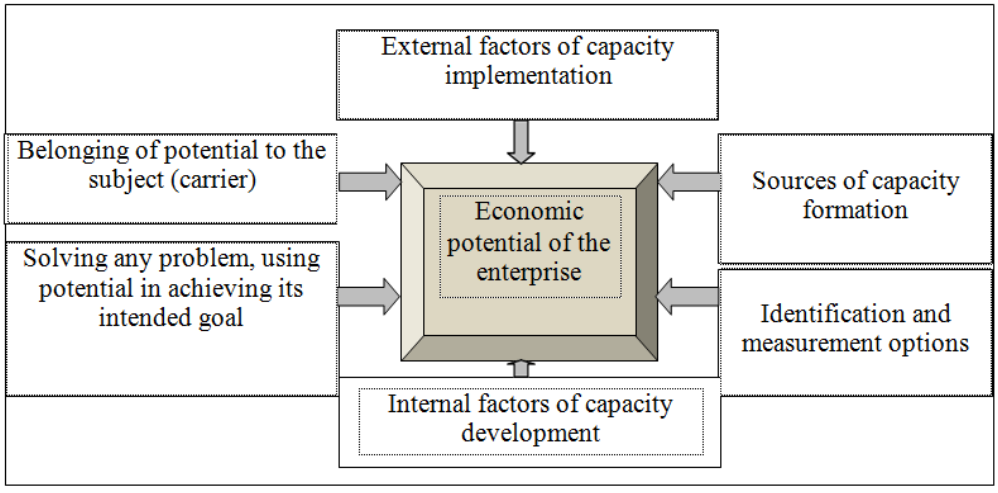

Figure 2. Description of the economic potential of the enterprise

Source: author development

The analysis of approaches to determining the essence of economic potential made it possible to clarify its content and form an author's approach. The economic potential of an enterprise is a complex economic concept that includes the interconnection and interaction of resources; the property status of an enterprise, its financial status and its economic relations; opportunities in the field of targeted activity and allows for further economic efficiency.

In order to conduct a deeper study of the organizational and methodological rules for assessing and analyzing the economic potential of enterprises, it is required to clarify the structural elements that make up the model of economic potential.

It is noteworthy that during the study of the category of economic potential, domestic and foreign specialists, on the one hand, focus on the complexity and versatility of this concept, and on the other hand, emphasize the holistic and detailed explanation of this category.

Conclusions and suggestions.

Thus, the structure of economic potential is multidimensional, determined and characterized by a whole set of socio-economic criteria that reflect the material and intangible spheres of potential and the effectiveness of its use.

The development and justification of organizational and methodological approaches to the assessment and analysis of economic potential involves taking into account the network characteristics (types of economic activity) of the economic entity.

The natural basis of agricultural production is land resources, the volume and quality of which, as one of the components of the production potential, determine the level of land potential of an agricultural enterprise.

The entanglement of the geopolitical situation in the world, the serious impact of climate change on industry production, the increasingly urgent problems of water use, as well as the entanglement of food security, encourage agricultural enterprises to strictly consider the system of state support, and industry enterprises and organizations to operate on market principles. Under such conditions, agricultural enterprises will have to act in a scientifically sound way in order to increase indicators of economic potential.

In such conditions, the importance of ensuring the harmony of factors of production – land, labor, capital, living organisms, information and innovation-that are foiled in agricultural production objectively increases. The combination of the listed factors with the management link and the business qualities of the management tools forms the overall value of the economic potential of an agricultural enterprise, the structure of which is largely determined by the geographical, natural, macroeconomic, social and similar external economic conditions and factors of economic enterprise.

Among the external factors of economic activity, natural and geographical conditions occupy a special place. The territorial location of agricultural enterprises makes objective requirements for the specialization of agricultural production, the development of the relevant industries and industries, the production of certain types of agricultural products.

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RELATIVE ANALYSIS BETWEEN FOOD PRODUCTS CREATED IN UZBEKISTAN AND RATIONAL NUTRITION STANDARDS

Akhmedova Nafisa Amirddin Kizi[1]

ABSTRACT

This article analyzes the problems of ensuring food safety and growing nutritious products, ensuring food safety, healthy nutrition, consumption rates of incompetent and competent residents. At the same time, proposals have been developed to ensure the safety of food products and regulate consumption ration.

Keywords: *Farmer, Farm, Food, Nutritious, Product, Ration, Processing, Plant, Feed, Product, Labor Resource, Grain, Legumes, Pulses, Fruits And Vegetables, Production, Consumption.*

Introduction

Currently, the fluctuations associated with the geopolitical situation in the world have become serious, and the growing threats to food security are not just panicking statements. According to data, 2.3 billion people live on the planet in conditions where food security is not moderate or acute. This implies not only hunger and waterlessness, but also the poor quality and unfit for consumption of existing food. Of these individuals, 556 million or 25 percent live on the Asian continent.

One of the main solutions to the problem, of course, is to develop agriculture, make good use of land areas, provide the population with quality food products by increasing the yield from the land. Our country is convenient to grow agricultural products in terms of geographical location and climate, has an economy in the agrarian sector, we have little concern in this regard for the fertility of our soil. But nothing happens by itself. In particular, it is necessary that we take the most advantage of our existing capabilities in a situation where natural benefits are not eternal, the problem of water shortages threatens us, as well as the peoples of the world.

Therefore, the development of an agrarian network, the widespread introduction of Science and modern technologies into it have become one of our main tasks. In recent years, the agricultural sector has undergone tremendous changes. In particular, serious attention is paid to the work on the effective use and productivity of agricultural land, its inclusion in reuse by conducting agrotechnical activities on unused arable land, and the development of arid land.

Literature review

The scientific and theoretical foundations of ensuring food security and its regulatory instruments have been studied by foreign scholars. Notably, J. Addison (2001) investigated the mechanisms for protecting employment in agriculture, G. Becker (1962) examined the capital investments required in human capital, A. Brittain (1997) explored full employment in industrially developed countries, and P. Samuelson, S. Brue, and C. McConnell (1992) studied agricultural issues and policies.

[1] Tashkent State University of Economics, Uzbekistan

Scholars from CIS countries have also contributed to this field. A.G. Efendiev (2002) focused on modern agriculture and its reforms, N. Baryshnikov and E. Cherdantseva (2017) researched production and agriculture, and V.K. Senchagov (2002) investigated the formation and developmental stages of economic and food security, as well as their distinctive characteristics.

In Uzbekistan, various economic scholars have explored the scientific, theoretical, and practical aspects of ensuring food security. A. Abduganiev (2004) studied agricultural economics, A.F. Khurramov (2005) analyzed property relations and their characteristics in the agrarian sector, F.T. Egamberdiev (2003) examined agro-industrial production processes, D. Tadjibaeva (2020) improved the theoretical foundations of enhancing the efficiency of institutional changes, I.B. Rustamova (2020) researched the scientific and methodological foundations for improving the efficiency of innovative processes in the agrarian sector, B.O. Dusmatov (2022) developed innovative infrastructure in agro-industrial production in the context of economic modernization, Ch.P. Khojageldiev (2022) incentivized the improvement of agricultural land fertility, A.Kh. Toshqulov (2021) focused on stimulating the economic activities of agricultural enterprises through taxes, H.P. Abulqosimov (2012) studied food and economic security, T.S. Rasulov (2017) examined ensuring food security, and S.R. Topildiev (2023) explored the theoretical aspects of agrarian sector development in their scientific research.

However, the theoretical foundations of ensuring food security in the country, particularly concerning the regulation of economic relations, have not been comprehensively studied as a scientific research object.

Methods

Scientific abstraction, induction and deduction, holistic approach to events, complex approach, systematic and comparative analysis methods were used in the research.

Appropriateness of the approach, scientific views, methods used in the research; official sources of information were used, including information from the Ministry of Health, sanitation and epidemiology of the Republic of Uzbekistan. And it is determined by the implementation of the conclusions, proposals and recommendations obtained as a result of the research by the competent structures.

Results and discussion

In order to ensure food security and increase employment in the agricultural sector, 200,000 hectares of land have been allocated, and an additional 500,000 hectares have been put into use, contributing to price stability in the domestic market. Most importantly, the ongoing comprehensive reforms have fundamentally changed the approach to land and labor. Now, agriculture has become a modern industry, and those working in it have transformed into enterprising farmers and agricultural entrepreneurs. The income generation from the sector has also significantly improved.

The nutritional standards for a balanced daily diet, aimed at ensuring healthy nutrition for the population of the Republic of Uzbekistan based on age, gender, and professional activity groups, are outlined in the sanitary rules, norms, and hygiene standards under SanPiN No. 0007-20. These standards are divided into the following groups, considering the physiological needs for energy and essential nutrients based on the intensity of labor, occupational groups, the country’s climate, and national dietary characteristics:

1. Group 1 - individuals primarily engaged in intellectual work, light physical activity, students, social science specialists, computer operators, teachers, dispatchers, control panel operators, accountants, secretaries (Physical Activity Coefficient (PAC) – 1.4). Daily energy expenditure is 1800-2450 kcal.

2. Group 2 - individuals engaged in light labor, such as transport drivers, conveyor workers, tailors, sales staff, electronics industry workers, agronomists, nurses, junior medical staff, service providers in communication sectors (PAC – 1.6). Daily energy expenditure is 2100-2800 kcal.

3. Group 3 - individuals engaged in moderately heavy labor, such as mechanics, adjusters, machine operators, drillers, excavator drivers, tractor drivers, combine operators, surgeons, textile factory workers, shoemakers, railway workers, metallurgy plant workers, chemical industry workers, waiters, cooks, and workers in public catering establishments (PAC – 1.9). Daily energy expenditure is 2500-3300 kcal.

4. Group 4 - individuals engaged in heavy physical labor, such as construction workers, drilling assistants, miners, cotton workers (excluding harvesters), agricultural machinery operators, midwives, movers, vegetable growers, carpenters, metallurgists, casting workers (PAC – 2.2). Daily energy expenditure is 2850-3850 kcal.

5. Group 5 - individuals engaged in very heavy physical labor with very high physical activity (PAC – 2.4), such as agricultural workers engaged in harvesting, cotton pickers, cutters, concrete workers, excavator operators, manual loaders, and miners. Daily energy expenditure is 3750-4200 kcal.

The program for promoting healthy eating and a healthy lifestyle involves the development and implementation of measures to increase the consumption of essential micro and macroelements and protein-rich foods (fruits and vegetables, legumes, berries, fish, dairy products, honey, etc.) to replace saturated fat products, salt, sugar, and fatty products. This includes reviewing healthy eating practices, identifying gaps in public knowledge and understanding, and determining priority directions for primary research and investigations.

Table 1.2.1 : Recommended one-year rational nutrition food standards for the population that is not part of the labor resource and is unable to work (Cereal products, per ton per year)[1]

Products	Children	Girls aged	Boys	Men		Women		
	(1-13) ageaverage	(14-17)	Aged (14-17)	Aged (18-59)	>60	(18-54) aged	Pregnantandbreastfeeding	>55
Legumes	5019	5475	5475	5475	5475	5475	5475	5475
Wheatflour	5019	7300	7300	7300	7300	7300	7300	7300
Rice	8213	14600	14600	18250	14600	16425	18250	14600
Wheatbread	44713	54750	73000	91250	73000	73000	80300	54750
Pasta	5475	10950	12775	16425	10950	10950	7300	5475

As can be seen from Table 1.2.1, grain products for children aged 1-13 to men aged 18-59 and pregnant and breastfeeding women for one year of rational nutrition food standards, on average, legumes and wheat products for ages 1-13 are 5019 tons, 8213- tons of rice, wheat bread 44,713 tons and pasta 5,475 tons,

[1]Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan, SanQvaN No. 0007-20. 2020 year. Appendix 1.

men aged 18-59 should consume 5,475 tons of legumes and wheat products, 18,250 tons of rice, 91,250 tons of wheat bread and 16,425 tons of pasta. Women aged 18-54, pregnant and breastfeeding women should consume 5475 tons of leguminous products, 7300 tons of wheat flour, 16425 tons of rice, 73000 tons of wheat bread, and 10950 tons of pasta.

Table 1.2.2 : Recommended one-year rational nutrition food standards for the disabled population (fruit and vegetable products, per ton per year)[1]

Products	Children aged(1-13)	Girls aged (14-17)	Boys aged (14-17)	Men aged(18-59)	Men >60	Women aged(18-54)	Women Pregnant and breastfeeding	Women >55
Potatoes	40150	73000	73000	73000	54750	54750	73000	54750
Cucumber	9490	16425	18250	18250	14600	18250	18250	14600
Tomato	8760	14600	18250	18250	14600	18250	18250	14600
Carrot	12045	16425	18250	18250	18250	18250	21900	18250
Onion	7300	10950	10950	14600	10950	14600	18250	14600
Melons	13505	18250	18250	18250	14600	18250	18250	14600
Pumpkin	8760	10950	10950	10950	10950	10950	10950	10950
Fruits	70810	91250	91250	91250	91250	91250	91250	80300
grapes	8395	14600	14600	10950	10950	10950	14600	10950
Citrus	2920	5475	5475	5475	3650	5475	5475	5475

Table 1.2.2 shows the average annual consumption norms for fruits and vegetables for different age groups, from children aged 1-13 to men aged 18-59. According to the recommended dietary norms, children aged 1-13 should consume 40,150 kilograms of potatoes, 9,490 kilograms of cucumbers, 8,760 kilograms of tomatoes, 12,045 kilograms of carrots, 7,300 kilograms of onions, 13,505 kilograms of melons, 8,760 kilograms of pumpkins, 70,810 kilograms of fruits, 8,395 kilograms of grapes, and 2,920 kilograms of citrus fruits per year.

Men aged 18-59 should consume 73,000 kilograms of potatoes, 18,250 kilograms of cucumbers, 18,250 kilograms of tomatoes, 18,250 kilograms of carrots, 10,950 kilograms of onions, 14,600 kilograms of melons, 10,950 kilograms of pumpkins, 91,250 kilograms of fruits, 10,950 kilograms of grapes, and 5,475 kilograms of citrus fruits per year on average.

Additionally, women aged 18-54, including pregnant and breastfeeding women, should consume 73,000 kilograms of potatoes, 18,250 kilograms of cucumbers, 18,250 kilograms of tomatoes, 21,900 kilograms of

[1]Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan, SanQvaN No. 0007-20. 2020 year. Appendix 1.

carrots, 18,250 kilograms of onions, 18,250 kilograms of melons, 10,950 kilograms of pumpkins, 91,250 kilograms of fruits, 14,600 kilograms of grapes, and 5,475 kilograms of citrus fruits per year.

Table 1.2.3 : Recommended one-year rational nutrition food standards for the disabled population[1](meat and dairy products, tons and liters per year)

Products	Children aged (1-13)	Girls aged (14-17)	Boys aged (14-17)	Men aged (18-59)	Men >60	Women aged (18-54)	Women Pregnant and breastfeeding	Women >55
Beef	11315	18250	21900	21900	18250	21900	25550	18250
Lamb	7300	10950	10950	10950	7300	7300	10950	7300
Poultry	15330	21900	21900	25550	21900	21900	25550	21900
Fish	8212,5	10950	10950	12775	10950	12775	12775	10950
Milk	171550	146000	146000	146000	146000	146000	182500	146000
Sourcream, cream	5840	5475	5475	5475	5475	5475	7300	5475
butter	6205	9125	9125	10950	10950	10950	10950	9125
Cottagecheese	12775	10950	10950	10950	10950	10950	10950	10950
Cheese	5475	7300	7300	7300	7300	7300	9125	7300
Margarine	1095	1825	1825	1825	1825	1825	1825	1825

Table 1.2.3 indicates the average annual consumption norms for meat and dairy products for different age groups, from children aged 1-13 to men aged 18-59, as well as women aged 18-54, including pregnant and breastfeeding women. According to these dietary norms, children aged 1-13 should consume 11,315 kilograms of beef, 7,300 kilograms of lamb, 15,330 kilograms of poultry, 8,212.5 kilograms of fish, 171,550 liters of milk, 5,840 liters of sour cream and cream, 6,205 kilograms of butter, 12,775 kilograms of cottage cheese, 5,475 kilograms of cheese, and 1,095 tons of margarine per year.

Men aged 18-59 should consume 21,900 kilograms of beef, 10,950 kilograms of lamb, 25,550 kilograms of poultry, 12,775 kilograms of fish, 146,000 liters of milk, 5,475 liters of sour cream and cream, 10,950 kilograms of butter, 10,950 kilograms of cottage cheese, 7,300 kilograms of cheese, and 1,825 tons of margarine per year on average.

Additionally, women aged 18-54, including pregnant and breastfeeding women, should consume 21,900 kilograms of beef, 7,300 kilograms of lamb, 21,900 kilograms of poultry, 12,775 kilograms of fish, 146,000 liters of milk, 5,475 liters of sour cream and cream, 10,950 kilograms of butter, 10,950 kilograms of cottage cheese, 7,300 kilograms of cheese, and 1,825 tons of margarine per year on average.

[1]Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan, SanQvaN No. 0007-20. 2020 year. Appendix 1.

Table 1.2.4 : Recommended one-year rational nutrition food standards for the disabled population[1](additional consumer products, thousand pieces and thousand tons per year)

Products	Childre	Girls	Boys	Men		Women		
	aged (1-13)	aged (14-17)	aged (14-17)	aged (18-59)	>60	aged (18-54)	Pregnant and breastfeeding	>55
Eggs (pieces)	292	365	365	365	365	365	365	365
Sugar	7665	10950	10950	10950	7300	10950	10950	7300
Honey	2281	3650	5475	7300	7300	7300	10950	5475
Vegetableoil	5110	9125	9125	9125	9125	9125	9125	7300
Iodizedsalt	1022	1825	1825	1825	1825	1825	1825	1825
Tea	487	730	730	730	730	730	730	730
Coffee	548	730	730	730	730	730	730	730
Calories	681208	1001669,5	1026526	1133106	1042586	1009115,5	1169460	947175
Protein	27426	37668	40296	43070	38799,5	39456,5	45004,5	37303
Oils	28149	40332,5	39347	43617,5	41099	38106	46683,5	37704,5
Carbohydrate	96905	156804	176806	204838	188595,5	162096,5	233782,5	160600

Table 1.2.4 shows the average annual consumption norms for additional food products for various age groups, from children aged 1-13 to men aged 18-59, as well as women aged 18-54, including pregnant and breastfeeding women. According to these dietary norms, children aged 1-13 should consume 292,000 eggs, 7,665 tons of sugar, 2,281 tons of honey, 5,110 tons of vegetable oil, 1,022 tons of iodized salt, 487 tons of tea, and 548 tons of coffee per year.

Men aged 18-59 should consume 365,000 eggs, 10,950 tons of sugar, 7,300 tons of honey, 9,125 tons of vegetable oil, 1,825 tons of iodized salt, 730 tons of tea, and 730 tons of coffee per year.

Women aged 18-54, including pregnant and breastfeeding women, should consume 365,000 eggs, 10,950 tons of sugar, 10,950 tons of honey, 9,125 tons of vegetable oil, 1,825 tons of iodized salt, 730 tons of tea, and 730 tons of coffee per year.

For children aged 1-13, the calorie intake should be 681,208 kcal, with 27,426 kcal from protein, 28,149 kcal from fats, and 96,905 kcal from carbohydrates. For men aged 18-59, the calorie intake should be 1,133,106 kcal, with 43,070 kcal from protein, 43,617.5 kcal from fats, and 204,838 kcal from carbohydrates. For women aged 18-54, including pregnant and breastfeeding women, the calorie intake should be 1,009,115.5 kcal, with 39,456.5 kcal from protein, 38,106 kcal from fats, and 162,096.5 kcal from carbohydrates.

[1]Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan, SanQvaN No. 0007-20. 2020 year. Appendix 1.

Table 1.2.5 : Recommended rational nutritional food standards for the working population (in tons per year)[1]

Products	Men		Women		
	(18-59)	>60	(18-54)	Pregnant and breastfeeding	>55
Flourandflourproducts	7300	7300	7300	7300	7300
Rice	18250	14600	16425	18250	14600
Pasta	18250	10950	14600	7300	5475
Potatoes	80300	73000	73000	80300	54750
Cucumber	18250	14600	18250	18250	14600
Tomato	18250	14600	18250	18250	14600
Carrot	18250	18250	18250	21900	18250
Onion	14600	10950	14600	18250	14600
Othervegetables	21900	21900	21900	21900	20075
Melons	18250	14600	18250	18250	14600
Fruits	91250	91250	91250	91250	80300
Beef	21900	18250	21900	25550	18250
Lamb	10950	7300	7300	10950	7300
Poultry	25550	21900	21900	25550	21900
Fish	12775	10950	12775	12775	10950
Fishproducts	10950	10950	10950	10950	10950
Milk	146000	146000	146000	182500	146000
Eggs (pieces)	365	365	365	365	365
Sugar	10950	7300	7300	10950	7300
Vegetableoil	10950	10950	9125	9125	7300
Iodizedsalt	1825	1825	1825	1825	1825
Tea	1095	1095	730	730	730
Caloriesofproducts	1152853	1060508	1009116	1169460	947175
Protein	43800	40953	39456,5	45004,5	37303
Oils	43982,5	40077	39894,5	46683,5	37704,5
Carbohydrate	221190	188595,5	194800,5	233782,5	160600

[1]Standards of average daily rational nutrition aimed at ensuring healthy nutrition for age, gender and occupational groups of the population of the Republic of Uzbekistan, SanQvaN No. 0007-20. 2020 year. Appendix 1.

Table 1.2.5 shows the average annual consumption norms for beef, milk, macaroni, sugar, vegetable oil, potatoes, tea, and iodized salt for men aged 18-59 and women aged 18-54, including pregnant and breastfeeding women. According to these dietary norms, men aged 18-59 should consume the following additional food products annually: 7,300 tons of flour and flour products, 21,900 tons of beef, 146,000 tons of milk, 18,250 tons of macaroni, 10,950 tons of sugar, 10,950 tons of vegetable oil, 80,300 tons of potatoes, 1,095 tons of tea, and 1,825 tons of iodized salt.

Women aged 18-54, including pregnant and breastfeeding women, should consume the following additional food products annually: 7,300 tons of flour and flour products, 21,900 tons of beef, 146,000 tons of milk, 14,600 tons of macaroni, 7,300 tons of sugar, 9,125 tons of vegetable oil, 73,000 tons of potatoes, 730 tons of tea, and 1,825 tons of iodized salt.

In addition to the above, to achieve the targets set for 2023, it is planned to cultivate food products on 4 million hectares (+358 thousand hectares), including 2.5 million hectares of main crops, 214 thousand hectares between orchard and vineyard rows, 424 thousand hectares of rain-fed land, and 903 thousand hectares of repeated sowing areas. These fields are expected to produce 8.1 million tons of grain, 528 thousand tons of rice, 579 thousand tons of legumes, 345 thousand tons of oilseeds, 12.2 million tons of vegetables, 2.5 million tons of melons, 4.1 million tons of potatoes, 3.1 million tons of fruits, and 2 million tons of grapes.

Additionally, 71 thousand farms will plant a total of 59 thousand hectares along the edges of fields, including 35 thousand hectares with 121 million mulberry, grape, poplar, and fruit saplings, as well as 24 thousand hectares with melons, vegetables, and other types of agricultural crops.

Regarding livestock development, by the end of the year, it is planned to increase the number of cattle to 14.4 million (103.6%), sheep and goats to 24.3 million (103.1%), producing 2.9 million tons (104.7%) of meat (live weight), 12.2 million tons (107.1%) of milk, 9.0 billion eggs (105.2%), 650 thousand tons (130%) of fish, and 31 thousand tons (211%) of honey.

As of January-May this year, the number of cattle reached 13.5 million, sheep and goats 23.2 million (103%), and poultry 89 million (102.6%), producing 946 thousand tons (104.1%) of meat (live weight), 3.7 million tons (104%) of milk, 20 thousand tons of fish, and 2.4 billion eggs (104%).

In the food industry, more than 22 thousand enterprises of various ownership forms operate, including 1,404 fruit and vegetable processing, 1,069 meat processing, 1,607 dairy processing, and over 18,300 other food production enterprises. In 2023, these enterprises aim to produce a total of 75.5 trillion soums worth of food industry products (116.2% compared to the previous year).

From January to May of this year, one modern agro-logistics center with a capacity of 1.5 thousand tons and a value of 10 billion soums was commissioned. Additionally, 22 refrigerated warehouses with a capacity of 14.5 thousand tons and a value of 23.9 billion soums were put into operation. As a result, the number of agro-logistics centers increased to 67 with a capacity of 901 thousand tons, and the number of refrigerated warehouses increased to 1,820 with a capacity of 1,196 thousand tons.

By the end of the year, nine projects with a total capacity of 63 thousand tons will be implemented, bringing the number of agro-logistics centers to 76 with a capacity of 964 thousand tons. Additionally, 19 projects with a total capacity of 11.2 thousand tons will be implemented, bringing the number of refrigerated warehouses to 1,839 with a capacity of 1,210 thousand tons.

Uzbekistan is recognized by the international community for its contributions to food security through the export of fruits, vegetables, and other agricultural products, alongside ensuring its own food security. The country is among the 14 nations awarded the FAO "Millennium Development Goal" for achieving food security. The International Food Policy Research Institute also acknowledges the significant progress made in this area in recent years. The "National Program for Ensuring Food Security for 2019-2024" is designed to address these objectives by mitigating threats to market stability and implementing favorable customs-tariff regulations for food imports.

Strategic and systematic measures are being implemented in Uzbekistan to ensure a stable supply of quality food products to the population and to support agricultural producers.

Conclusion

Based on the above, we conclude that it is necessary to develop and implement a state policy on food security that ensures the safety of food products and regulates the consumption diet, considering the required quantity of food production.

However, some problems remain in ensuring food security in the country. To address these issues and strengthen food security, it is advisable to implement the following measures to increase the processing of agricultural products, ensure physical and economic access to sufficient safe food for an active and healthy life, improve product quality, and stabilize prices:

- Establish and manage a system that ensures the stable development of the agro-industrial complex and food security at all levels of the republic.
- Introduce a system to identify, assess, and anticipate potential food security risks.
- Expand the network of enterprises focused on deep processing of agricultural products.
- Develop specialized cold storage facilities, sorting and packaging points, and a special transportation-communication network for transporting fruits and vegetables.
- Reduce the material and energy consumption of the processing industry by prioritizing resource-saving low-cost technologies.
- Make rational use of agricultural land and water resources.
- Ensure the stable development of domestic production of essential types of agricultural and food products and raw materials.
- Promote the stable development of livestock, poultry, and fish farming, increase production volumes, and strengthen the feed base.
- Improve the infrastructure for the production of agricultural and food products.
- Ensure food safety.
- Increase the economic capabilities of all population segments to access food products.
- Expand the activities of production complexes, holdings, clusters, and scientific-production associations engaged in the simultaneous production and processing of fruits and vegetables.

- Ensure the continuous supply of necessary infrastructure for fruit and vegetable processing enterprises in rural areas, including roads, gas, electricity, water supply, and other engineering-communication networks.

Achieving food security in the country depends on the implementation of strategies and programs in agriculture, the food industry, and trade. Therefore, it is essential to further strengthen state support for these sectors.

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ADVANCED FOREIGN EXPERIENCES IN CREATING A PRIVATE INSURANCE MECHANISM

Jonuzokov Ozod Shokir o'g'li[1]

ABSTRACT

This article discusses: development of personal insurance in Uzbekistan,to further reform the national insurance market and ensure its rapid development,introduction of new types of life insurance services in high demand,the negative impact of several factors on the development of life insurance at a time when increasing consumer confidence in the insurance market is the most pressing issue of the day,ways of carrying out relevant work aimed at developing and introducing an innovative mechanism in the field of life insurance, taking into account advanced foreign experience.

Keywords: *Insurance, Insurance Services, Personal Insurance, Insurance Business, Open Insurance, Insurance Policy, Life Insurance, Group Insurance, Insurance Companies, Life Insurance Programs, Social Security, Gross Domestic Product, Life Insurance, Bonuses, Benefits Insurance.*

INTRODUCTION

It is known that in the world, special attention is paid to the wider use of insurance in the effective use of property by business entities, and the improvement of the use of the insurance mechanism in the optimal protection against complex and growing risks. According to the report of the European Association of Insurers, "the total turnover of the modern global insurance market in 2022 was 2.4 trillion in the USA, 1.5 trillion in Germany, 1.3 trillion in the United Kingdom, 1.18 trillion in France, 857 billion in Switzerland, 470 billion in Norway"[2].

In the conditions of innovative development, it is necessary to eliminate obstacles in personal insurance, to create a competitive environment among insurance companies by organizing transparent and open insurance services.

LITERATURE REVIEW

The study of the economic essence of personal insurance practice, the theoretical views, methodological and practical approaches that reveal the gradual development and essence of the formation of personal insurance services have been researched in the scientific works of the following foreign scientists: Ch.S. Skavtorm, R.M. Askari, R.R. Soyts, S.S. Diakon, L.A. Orlanyuk-Malitskaya, N.G. Adamchuk, I.V. Orlova, I.L. Logvinova, A.A. Tsyganov, K.E. Turbina, S.A. Chudinov, G.V. .Chernova, R.T. Yuldashev, P.T. Chechchini[3].

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[1] Researcher of Tashkent State University of Economics, Uzbekistan

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Some directions of improvement of personal insurance practices were studied in the scientific works of the following scientists from local economists: T. Malikov, O. Olimjonov, A. Jo'raev, H. Sobirov, H. Shennaev, M. Khodzhaeva, M. Askarova, T. Baymuratov, Q. Koldoshev, Khasanov[1].

RESEARCH METHODOLOGY

This article uses methods of scientific abstraction, analysis and synthesis, induction and deduction. The data of this research was obtained from official sources, and based on the comparative analysis of the scientific theoretical views of famous economists on the role of innovations in the development of the economy, the generalization of foreign experiences and the results obtained on the achievements made in our country, it was possible to study the specific characteristics of personal insurance in Uzbekistan.

RESULT AND DISCUSSION

It should be noted that at the modern stage, the activities of insurance companies in economically developed countries as well as in developing countries are significantly influenced by external factors. The world economic system is going through a period of unprecedented changes. Many economists predict that the variability of the external conditions of the activity of economic entities will be one of the important features of the market (including the insurance market) for many years.

The American insurance business is distinguished by its large scale and leads the world insurance market by all possible indicators. In modern America, there are almost no material objects and interests that are not protected by insurance. The tradition of insurance in the United States already has a history of one and a half centuries, and as confirmed by the Insurance Institute of America, in the United States, term life insurance is one of the three main types of life insurance, which in turn is one of the three major branches of personal insurance, along with health insurance and annuities[2]. Term life insurance offers two types of protection – term or whole life. There are four types of whole life insurance:

- Simple whole life;
- Universal;
- Changeable;
- Universal variable.

The life insurance system in the United States is characterized by:

- High level of development of collective insurance;
- Sufficient level of cancellation of the contract (about 10%);
- Balance of life and health insurance products;

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[2]Америка ҳаёт суғуртаси ассотсиатсияси веб-саҳифаси. URL: http://acli.com

- High values of the average insurance premium and the average sum insured under the contract, and, accordingly, a high level of insurance protection.

The variety of term life insurance products available in the US market indicates that policyholders are highly protected and aware of their need for personal insurance.

In the modern life insurance market in the United States, qualitative changes are taking place that are naturally associated with the development of development. In the past, insurance policies were sold almost exclusively by captive agents (that is, representing one insurance company) or independent (representing several companies) agents. American life insurers actively use innovative sales channels: the Internet, "insurance centers", professional organizations and direct sales at workplaces.

In Germany, the private insurance sector is experiencing increasing competition from commercial banks seeking to provide insurance services to their customers through commercial banks' trading platforms. In general, the profitability of operations in the insurance sector for individuals is higher than in the insurance services sector for legal entities. The sector of insurance services for individuals occupies 87% of the German insurance market, the sector of insurance services for legal entities - 13%. Dividends on shares of insurance company shareholders are stable, but it is slightly lower than in other Western European countries.

Insurance in Germany is divided between the public social security system and the private insurance sector. Social insurance is mandatory for all employees, unless they are covered by the private insurance sector. This applies to old age insurance, unemployment insurance and temporary disability insurance. The private sector of insurance services in Germany is represented by the following types of insurers: joint-stock insurance companies that are the property of their shareholders; mutual insurance societies and public insurance corporations.

Germany's federal structure is an important factor in the development of direct-to-consumer insurance promotion channels. Regional insurers maintain their physical presence in all German states. The work of independent insurance brokers serving various insurance companies is considered the main source of attracting customers. Direct sales of insurance policies carried out from the offices of direct insurance companies are widely provided. Each insurer usually has several insurance agents serving a specific area. In general, insurance brokers are more active in providing insurance services to legal entities, while "affiliated" insurance agents primarily serve the insurance interests of individuals. A characteristic of a number of large insurance companies in Germany is that they inform potential customers about their insurance services by sending relevant information by mail, without the expensive services of insurance intermediaries in solving activation issues. These insurance companies bear significant expenses for conducting advertising events and paying for postal services, while saving on the service fees of insurance intermediaries.

Table 1 : Insurance products of individual life insurance in the American market (selected)[1]

Typeofinsurance	NorthwesternMutual	Hartford	Prudential
	Name of the insurance product		
Муддатли (term)	1. "Fast 80" 2. " Fast 10" 3.«Urgent 20 with specified amount» 4.«Urgent 10 withspecifiedamount»	1.«Annually renewed urgency» 2.« Anniversary rush 10, 15, 20 and 30»	1. Temporary "Working life" 2. Term "main" 3. Term "Elite" "Premium refund in term insurance" option
whole	1. "Life 90". 2. "Life 65". 3. «Life with a one-time reward»	1. "Extraordinarylife"	-
universal	1. "The customer is a universal collector". 2. "The client is a universal protector". 3. "Universal joint". 4. "The customer is universally guaranteed." 5. "JointUniversalGuaranteed"	1. "Jubilee Universal: Freedom". 2. "Jubilee Universal: Freedom 2". 3. "Jubilee Joint Universal: Founders 2". 4. "Indexed universal"	1. "Universal defender" 2. "Universal Plus". 3. "Universal joint"
variable, universalvariable	1. "Customer-specific universal variable". 2. "Management is a universal variable." 3. "Jointuniversalvariable"	1. "Universal Variable: Freedom". 2. "Universal Variable: Legacy". 3. "JointUniversalVariable: Legacy 2"	1. "Client Premier 2" 2. "Universal variable - Defender"
pureendowment	-	-	-
retirement plans	Annuities		
Children'sinsurance	In addition		

The modern electronic-digital world opens up many opportunities for insurance activity, providing policyholders with comprehensive information in order to assess the risks that directly affect the financial stability of insurance organizations as clearly and accurately as possible. At the same time, it is desirable to determine the factors that directly affect the formation of a qualitative model of risk assessment and forecasting the probability of occurrence of insurance events.

The spread and improvement of digital technologies affects the development of industrial relations, the structure of the economy and education, and sets new requirements for communications, computing power, information systems and services. In modern conditions, without developed platforms, technologies, institutional and infrastructural environments, the dynamic development of markets and fields of activity cannot be realized.

The process of digitization of the economy has a serious impact on the activities of insurers - the main

[1] Муаллиф томонидан компания қуйидаги веб-саҳифаларни ўрганиш асосида тайёрланган:Northwestern. URL: http://www.northwesternmutual.com/ Hartford. URL: http://www.hartfordinvestor.com/ Prudential. URL:http://www.prudential.com

participants of the insurance market, and business entities that carry out insurance activities.

Digitization determines insurers' interest in basic innovation. They are increasingly using digital technologies to simplify insurance processes and mechanisms. Such technologies include, in particular, automation, chatbots, information processing in the cloud computing, technologies with elements of artificial intelligence.

The purpose of the activity of insurance companies should be focused on meeting the needs of policyholders, the results of which they expect will also change due to the digitization of the economy. Ease of use ("one-click" shopping), 24/7 availability and fast delivery provided to consumers through digital technologies; clear and understandable information about the product and its features; innovative personalized services will be required. Achieving such goals in the short term provides an opportunity for the insurer to increase its profit. At the same time, the introduction of digital technologies allows the insurer to reduce costs during the movement of goods in the value chain. For example, automating processes can reduce the costs associated with processing insurance claims.

It should be noted that long-term profitability is related to the introduction of innovative insurance products and protection services. The problem of cyber security leads to an increase in the demand of companies and households for products that protect or prevent information loss and subsequent damage. The new needs of policyholders, determined by the digitization of the economy, together with new technologies, provide great growth opportunities for insurance companies. However, complexities in the regulation of activities remain a serious obstacle for new insurance companies to enter the market. The size of the companies operating in the insurance market, the reluctance of consumers to change their insurers in property insurance, property and casualty insurance (R&S), and especially in life insurance, cause difficulties for new entrants, preventing them from quickly gaining market share. In addition, established insurance companies tend to have large capital reserves, and unlike startups, they have exceptional underwriting skills based on years of experience and extensive market knowledge.

The above explains why the digital "development" of the insurance industry generally "lags" compared to other industries. But today, the situation is changing. Funds directed by investors into the sector indicate that this sector is no longer considered "impenetrable". Today, a significant increase in investments in the activities of Insurtechs - technological companies, which began to develop with the growth of the digital economy, is noted. The main goal of their activity is the development of IT solutions for the insurance industry. They are named after FinTechs - financial technology companies that develop IT solutions for the financial sector.

With the emergence of Insurtechs in some countries, regulatory barriers to market entry have been reduced. For example, in Australia, Singapore, Great Britain, such companies were able to introduce innovative business plans in some segments of the market without fully complying with the requirements of the regulator, unlike the active participants of the market, and gave impetus to the emergence of insurance telematics.

Telematics systems are one of the fastest growing segments of the information technology market. But it is quite difficult to give a general definition of the term "telematics" - firstly, telematics is "control of objects located at a long distance", secondly, "modern electronic equipment in cars", and thirdly, "specialized information devices and modules for data processing and transmission".

Often, specialists in the field of information technology consider it necessary to separate telematics into the concepts of telecommunications and telephony.

From January 1, 2015, a new medical program was launched in Europe, according to which doctors and their patients work with an electronic medical record. Germany's Federal Ministry of Health has declared that the new system is faster, better and more efficient than the paper version. In addition, its implementation will significantly save annual costs.

Patients have a special PIN code to use an electronic card, and a plastic card with information serves to confirm the identity. It shows the person's name, address and year of birth. In the future, it is planned to include information on the inability of a particular patient to take certain drugs in the card - this will help doctors to quickly make the right decision in emergency situations. Patient histories are stored on Hematic's remote servers, and patients can access them anytime, anywhere. It is planned to complete the formation of such a database in 2019, after which the system will be fully operational.

Fitness - the possibility of bracelets is limited to the functions of the devices placed on it, which in general determine the following:

- Blood pressure measurement;
- Pulse measurement;
- Measuring body temperature;
- Detection of activity when walking, using a bicycle, going up and down stairs;
- Determine the time of sleep;
- To determine the activity of electrical conductivity of the skin.

The information displayed using special specialized software allows to make a preliminary conclusion about the current state of the human organism compared to the average criteria, long-term observation during movement allows to make a conclusion about possible deviations from the norm and risks.

However, prior to collecting data "on the fly", initial health underwriting can be done based on the following initial data:

- Body fat-free weight;
- Weight;
- Body weight index;
- Body fat percentage;
- Height;
- Age;
- Gender;
- Playing sports, etc.

The key to the correct analysis of the received data is the continuous wearing of the bracelet and the input of the customer's biometric data into the software product.

As a result of the introduction of "Smart insurance" products, in addition to the fact that the technology itself is new, there is a significant growth and development of the insurance portfolio, but in many ways the most important factor is the most accurate probability of an event, taking into account the specific characteristics of each client and insurance object as much as possible. sale of insurance products, which allows for the formation of price indicators, which ultimately allows to significantly increase the accuracy of risk assessment and positively affect the financial stability of insurance companies. At the same time, similar types of products provide for the client's active participation in the formation of the price of the insurance product and, of course, prevent the development of negative situations in all areas of his life.

The experience of the implementation of similar systems in the West shows that the "smart insurance" product allowed to reduce the number of traffic accidents on the roads, increase the overall level of road safety, reduce insurance and fuel costs for car owners, and also improve the environmental condition of cities. For medicine, where the diagnosis of the disease in its early stages is the key to effective treatment, such decisions allow the reduction of medical costs for customers, and for insurance companies to take preventive measures aimed at reducing the overall costs of paying and providing insurance coverage. Similar trends are observed in property insurance of individuals.

CONCLUSION

In summary, an individual takes out a life insurance policy to protect his family in the event of his untimely death or for investment purposes to meet future financial needs. Therefore, life insurance allows solving extremely important socio-economic problems and is fully supported by the state. In the conditions of the market economy, it represents one of the most important mechanisms for ensuring economic and social stability. The foreign practice of implementing types of long-term life insurance shows that the insurance products of foreign insurance companies differ less from each other than the difference in the level of contract fulfillment (especially in many cases, Britain, America and German insurance regulations apply). Of course, the use of foreign experience in the implementation of long-term life insurance types significantly increases the types of life insurance offered to the population.

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SUSTAINABLE DEVELOPMENT OF AGRICULTURE BY USING "GREEN" TECHNOLOGIES: PROBLEMS AND SOLUTIONS

Yokubjanov Doniyor Islom o'g'li [1]

ABSTRACT

Agriculture is one of the major contributors to environmental degradation. Producing, transporting and eating food requires a lot of carbon, and it releases into our atmosphere, accelerating global warming. With a growing population and rising living standards, focusing on "green" technologies in agriculture has become more important than ever. Therefore, the issues of developing agriculture based on "green" technologies, saving natural capital as much as possible, and increasing the volume of production of environmentally friendly food products that can quickly adapt to climate changes through rational use of land and water resources are urgent.

Keywords: *Agriculture, Green Technology, Sustainable Development, Renewable Energy, Zero Tillage, Biotechnology, Organic Agriculture, Vertical Farming, Irrigation, Integrated Pest Management, Drones, Fleet Management , Agricultural Robots, Digital Sensors.*

Introduction

Agriculture produces food based on natural resources. Transitioning to a more sustainable path of economic development requires good management of agricultural production, as both food and natural capital are needed for present and future generations. In the process of food production, agriculture is one of the major contributors to environmental degradation in terms of food production, storage and transportation. As the world's population grows and living standards rise, it is more important than ever to turn to "green" agricultural technologies. The United Nations Center for Agricultural Engineering and Mechanization in Asia and the Pacific (APCAEM) has emphasized the need for sustainable agricultural development to reduce poverty by ensuring environmental sustainability. Environmentally friendly technology, which is the basis for sustainable development of such agriculture, is called "green" technology (GT). "Green" technology is also known as "clean" technology in some literature, and it helps to reduce the negative impact of mankind on the environment. If used correctly, it will provide future generations with highly efficient agricultural systems. Science has made a great contribution to many fields. Space technology, biotechnology, aircraft technology and many other fields are products of great scientific efforts. However, the practice of indiscriminate urbanization has had dangerous consequences for development. Due to excessive consumption of natural resources, the world is facing serious environmental problems[1].

The uncontrolled activities of mankind have damaged the four spheres of the Earth, i.e. Atmosphere, Hydrosphere, Lithosphere and Biosphere. "Green" technology is undoubtedly one of the best ways to achieve continuous socio-economic development without compromising environmental sustainability. It also provides solutions for environmentally friendly waste management. Accordingly, it helps to increase the "green" environment in urban conditions and improve the sustainable state of the environment. "Green"

[1] Namangan State University, Uzbekistan, Namangan city, Boburshohstreet, 161 house

agricultural technologies are important in solving issues such as preventing environmental damage, producing less fossil fuel products, and ensuring long-term sustainable development of agriculture.

Literature Review

Human civilization and agriculture go hand in hand. Agriculture is the process by which people grow, process, and sell plants. This is a process that started at the very beginning of human civilization (Orsini & D'Ostuni, 2022). However, rapid transformation of the agricultural landscape, declining soil fertility, loss of biodiversity (resulting in altered biogeochemical cycles), pest attacks, and plant diseases have raised concerns about sustainable agricultural production. (Venkatramanan & Shah, 2019). In addition, significant global population growth and climate change threaten food security and the sustainable supply of food resources (Kendall et al., 1994). Of course, modern agricultural practices have begun to implement processes that ensure sustainable productivity. "Green" technology is one of the most effective ways to improve agricultural practices.

Diffusion of "green" technologies, which is considered as a source of innovation, refers to the process of introducing innovative "green" technologies among people and spreading them to the whole society (An X., Wen Y.L., Zhang Y.Q. and Xu S., 2019). These new agricultural technologies, inventions and results are widely used by farmers over a period of time and through several directions after passing through the stages of identification, decision making, participation and implementation and recognition. is a scalable process (Rupani P.F., Delarestaghi R.M., Asadi H., Rezania S., Park J., Abbaspour M. and Shao W., 2019). Currently, excessive consumption of Earth's resources, deteriorating environment and serious ecological damage have led to an increase in demand for "green" technology in agriculture (Krawczyk A., Domagala-Swiatkiewicz I. and Lis-Krzyscin A., 2017). As a result of the uncertainty and market risk of "green" technologies, many SMEs are reluctant to invest in this field, which leads to insufficient investment in scientific research (Yao Y.T., Chen W.M. and Li X.N., 2014). The market of "green" agricultural technologies of developing countries is still lagging behind. On the one hand, it also depends on the relatively low level of literacy of farmers in these regions (Zhang S.L., 2019).

Research Methodology and Empirical Analysis

2.6 billion people on Earth live directly related to agriculture, most of them work on small farms in rural areas for less than $1 a day. In rural areas, 70 percent of the poor rely on agriculture for their livelihood. According to the data of the World Bank, the share of agriculture in GDP is 3% on average in the world, while in low-income countries this figure is 32%.[2].

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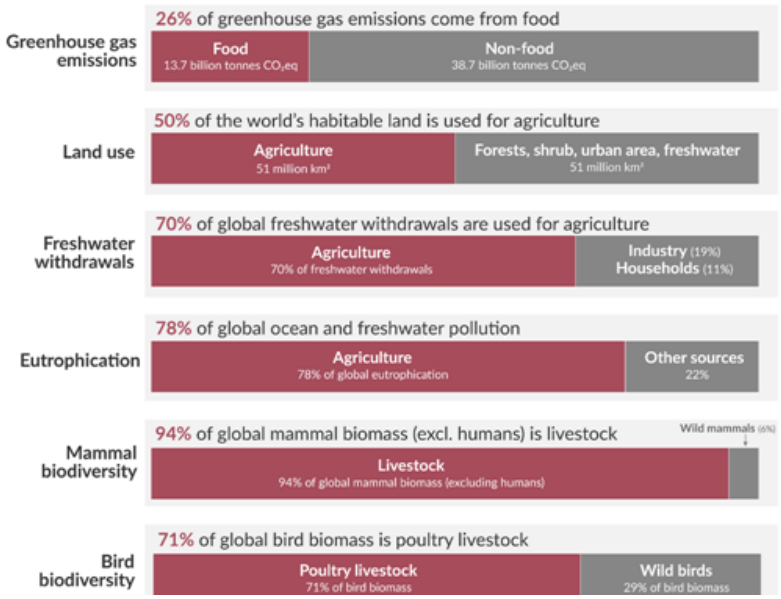

Figure 1. Impact of agriculture on the environment[3]

From the above picture, we can see that the share of agriculture in global environmental problems is large. Agriculture accounts for 26 percent of greenhouse gases. 50% of usable land and 70% of fresh water resources are used for agricultural purposes.

Goal 2 of the UN Sustainable Development Goals consists of "End hunger, ensure food security, improve consumption and promote sustainable agriculture", and agriculture is important in achieving this goal.

More than 815 million people in the world are undernourished, most of them live in developing countries and they make up 12.9% of the population[4]. In recent years, as a result of the implementation of a number of measures to strengthen food safety in our country, Uzbekistan has managed to strengthen its position in the world and has gradually improved its position in global rankings. In 2019, the Republic of Uzbekistan took 49th place among 119 countries according to the Global Hunger Index, reaching a "moderate" level with an index of 10.7[5].

"Green" agriculture is able to fully satisfy the growing need for food of the world population until 2050. According to some calculations, with the help of "green" technologies and methods of agriculture, it is possible to increase the nutritional unit of 2800 kcal per person to 3200 kcal by 2050[6].

Although "green" technology is becoming increasingly popular in the modern world, elements of this business practice have been used since the Industrial Revolution. Beginning in the early 19th century, scientists began to monitor the environmental impact of coal-fired industries, and manufacturers tried to reduce their negative externalities by producing less toxic gases or emissions[7].

One of the most important periods in the United States was the period of World War II. In an effort to reduce consumption and waste, more than 400,000 volunteers began collecting metal, paper, rubber and other materials for the war effort[8].

After the war, scientists like Rachel Carson began to warn of the effects of chemical pesticides, and doctors abroad reported mysterious illnesses linked to nuclear radiation. Many cite this period as the genesis of the environmental movement, which seeks to preserve ecosystems and resources and raise awareness of the consequences of advanced technology.

Government bodies gradually realized the importance of protecting environmental resources. In the following decades, awareness about household waste increased. The Environmental Protection Agency, established in 1970, set stringent pollution and emissions standards and set mandates for coal-fired scrubbers and other "clean" technologies[9].

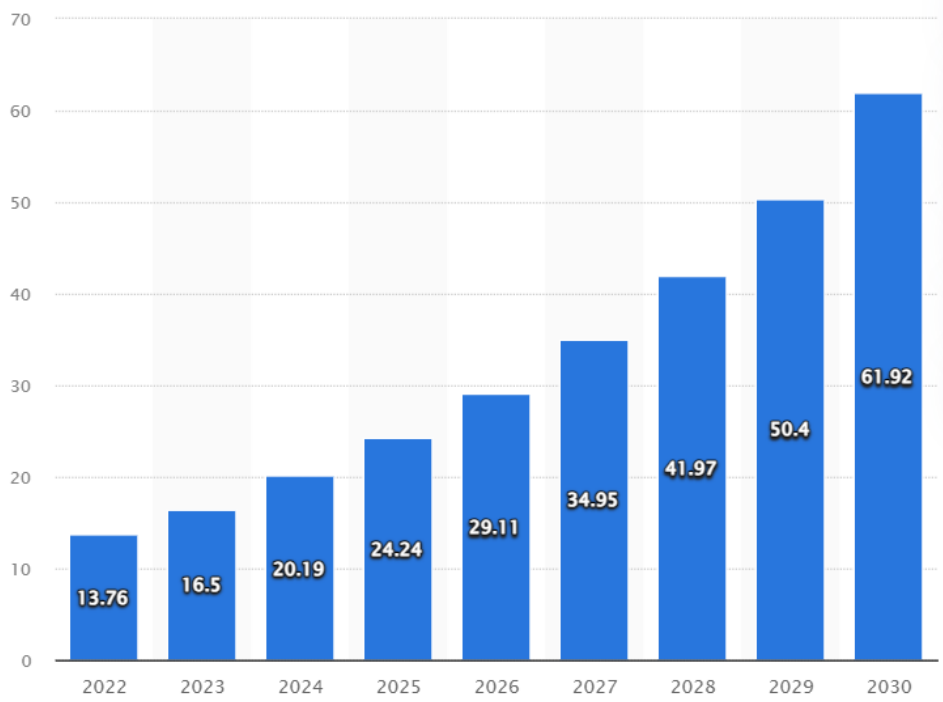

Diagram 1. Global Green Technology and Sustainability Market Size (US$ Billion) 2022-2030[10]

The global "green" technology and sustainability market size is projected to grow from USD 16.50 billion in 2023 to USD 61.92 billion by 2030, growing at a CAGR of 20.8%[11].According to a 2020 report by Switzerland Global Enterprise, the COVID-19 pandemic has had a negative impact on investments in "clean" technologies globally. Similarly, the second quarter of 2020 saw a lot of investment by climate technology companies. In the third quarter of 2020, investments fell sharply by almost 23.6 percent, while the number of deals decreased significantly. This factor hindered the growth of the green technology and sustainability market in the short term.

Results

Environmental pollution and climate change are the main global problems of the present time, which have a serious impact on agricultural productivity. Global warming and related problems are increasing due to traditional agricultural practices such as deforestation, burning of fossil fuels and other such factors.

In developing countries, agriculture is the main source of employment and the only source of income for the poor. "Green" agriculture plays an important role in reducing the level of poverty in the world. The use of "green" methods of agriculture helps to solve the problems of environmental degradation and poverty together[12].

Sustainable agriculture is one of the solutions to fight against environmental pollution, thereby eliminating the negative effects of climate change. In conventional farming systems, farmers typically use large amounts of fertilizers, pesticides, and other agrochemicals. Due to improper use of fertilizers, excess amount of fertilizers is a polluting factor of the environment. Therefore, there is a need for "clean" and "green" technologies for sustainable agricultural practices[13]."Green" technology is any form of technology used in a production process or supply chain that does not harm the environment. It is a form of "clean" energy production that uses technologies that cause less damage to the environment than traditional fuels. When it comes to "green" technologies, the market is still very young. However, increasing awareness of non-renewable natural resources and climate change has sparked investor interest[14].It is critical for us now to start implementing "green" technologies to slow global warming and reduce greenhouse gas emissions. The main goal of using "green" technologies is to save our natural resources, which have already started to run out, to use them wisely or to preserve them completely. This ultimately improves the overall health of the planet. Active use of "green" technologies will help mitigate the pollution that has already choked our planet. This is one of the reasons why it is accepted by many countries of the world. "Green" technologies can solve many problems faced by farmers in agriculture. The use of more sustainable ideas and technologies will help to make farming more environmentally friendly. "Green" technology is an environmental treatment technology that reduces environmental damage, reduces poverty, and contributes to the sustainable development of agriculture. "Green" technologies work to reduce the negative impact of people on the environment. If done right, they will sustain humanity and pass on successful agricultural methods to future generations. "Green" technologies are very important for agriculture, because they reduce the damage to the environment, use less fossil fuels as raw materials and contribute to the sustainable development of agriculture. This is one of the main reasons why they are called "clean" technology[15].As the world's population continues to grow, farmers must meet the increase in demand without harming the environment. Therefore, farmers are now turning to "green" technologies in order to gain profit by increasing production efficiency, as well as to be sustainable in the production process. Some of these technologies may already be familiar to you, but many are not[16]."Green" technologies include renewable energy, zero tillage, biotechnology, organic farming, vertical farming, irrigation, integrated pest management, drones, fleet management and digital sensors[17].

Renewable energy. Renewable energy, or "clean" energy, is essential for sustainable agriculture. A renewable resource is a natural resource that can regenerate itself after it is used up - it does not run out, so it is sustainable. Currently, most agricultural machinery runs on fossil fuels, which emit greenhouse gas emissions into the atmosphere and have a serious impact on climate change. Environmental damage can be reduced by using renewable energy technologies. Farming with renewable energy can be a great combination as it provides farmers with a long-term source of income.

There are many types of renewable energy, but here are some of the most commonly used in agriculture:

a. Solar technologies are one of the most effective methods for agricultural practice. This renewable technology works by converting sunlight radiation into electricity. Electricity produced from the sun can be used to start agricultural machinery, that is, to use it.

b. Wind turbines are a convenient choice for farmers because they do not take up much space. They can be used for irrigation purposes.

c. Biomass is derived from biological organisms such as corn, plant and animal waste. This material is then converted into energy by burning.

The use of renewable technologies in agriculture not only makes the industry more sustainable, but also helps ensure food security. This is one of the biggest changes the agricultural industry can make to create a low-carbon and energy-secure future.

Zero-tillage. Zero-tillage or no-till farming is the process of planting a crop seed using drills without pre-preparing the land and disturbing the existing soil. This method eliminates the need to plow the land or use any heavy agricultural machinery. No-till not only reduces production costs, but also reduces soil erosion, crop duration and irrigation requirements, and the negative impact of weeds, which is better than no-till. No-till also improves soil carbon sequestration (the amount of carbon the soil absorbs and stores) and uses plant residues left on the soil surface from the previous crop. Overall, this "green" method of farming helps reduce the amount of greenhouse gases released into our atmosphere while also reducing costs for farmers. This shows that the technique has both environmental and economic benefits and is globally applicable and therefore important. Zero processing doesn't require you to spend a lot of money on it before you see results. Educating farmers on these practices can be a huge step toward making the agricultural industry more sustainable. Zero-till farming is a "green" method that also takes into account the global demand for food. This technology was first used to save water and soil, but additional benefits such as reducing greenhouse gases can be used to benefit the planet.

Biotechnology. Biotechnology, or genetically modified organisms (GMOs), is the process of altering a crop's DNA in a way that would not occur naturally. The ability to engineer plants with specific pathways is a powerful technology that has many benefits for humans, including helping to combat climate change. Biotech crops are more sustainable for our environment. Biotechnology positively mitigates the effects of climate change by using genetically modified, stress-resistant and high-yielding crops.

Organic farming. Organic farming is a farming system that uses environmentally friendly methods of controlling weeds, pests and diseases. Organic farming is the process of using ecologically "clean" farming methods to improve soil and human health while protecting the environment. It uses high-quality soils, which ensures an increase in productivity. Organic farming requires less fossil fuels, fertilizers and pesticides. Instead, he uses crop rotation and manure to control pests, weeds and diseases. The use of organic technology mitigates the effects of global warming by sequestering carbon into the soil. It also uses less energy and increases biodiversity. Organic farms usually require a much larger area of land to grow crops than intensive farms. If the whole world were to switch to organic farming, we would have to cut down the forests. I wonder, this begs the question, should we increase green areas and engage in intensive farming on smaller areas, or should we cut down forests so that we can farm organically on larger areas? The answer is probably a bit of both!

Vertical farming. Vertical farming is the process of growing crops in vertical layers. This means that farmers can grow significantly more than usual on the same amount of land. Vertical farming can be a sustainable urban farming method that provides environmental, economic and social benefits. Farmers will see increased yields and reduced wastage of water and fertilizers. This new technology has been found to reduce water consumption by 95%! Because the crops are grown in controlled climates, there is less need for pesticides. Another big advantage is that vertical farms can be located anywhere, meaning they can be built in cities and densely populated areas to meet local food needs. This "green" technology is mainly used in cities and countries with limited free land. Although energy consumption for vertical farms is much higher than conventional farms (they get free energy from the sun to grow crops).

Irrigation control. Irrigation is the provision of water to crops and is certainly the most important part of agricultural processes. However, with the right technology, you can use your water supply as wisely and efficiently as possible. The less water a farmer uses, the more sustainable the practice. Water supplies are limited, so saving water is important for a healthy environment. Wireless and remote monitoring systems are now available to help farmers monitor their operations and make informed decisions about water use and distribution. This can be especially beneficial for large farms with a lot of land to maintain.

Integrated pest management. Integrated Pest Management, or IPM, is the process of managing pest problems without harming people or the environment. IPM is an ecosystem-based strategy that focuses on the long-term prevention of pests or their damage through a combination of methods such as biological control, habitat manipulation, changes in cultural practices, and the use of resistant cultivars. IPM can be used anywhere - urban, agricultural, wild and natural areas - to control all kinds of pests. Crop health is essential for good agricultural productivity, which means IPM is an important "green" technology for the future. This reduces the use of synthetic pesticides. It is a "green" technology that many farmers can use to keep their land healthy and productive.

Drones. It is well known that interest and passion for drones is growing. It can be assumed that they are used for many purposes today. They can be very useful in the agricultural industry as a "green" technology to improve sustainability and help fight climate change. Drones help farmers to be more efficient and more sustainable in what they do. This new and powerful technology can be used in many aspects of agriculture. With a wide range of sensors and cameras, drones are perfect for aerial photography and crop inspection. Drones are increasingly becoming a mainstream smart farming tool.

Agricultural robots. Many companies are developing robots that not only help make farming more efficient, but also help reduce the impact on the environment. A small robot company is a great example of how robotics and artificial intelligence can be used to benefit the environment. These robots can be deployed on farms for a variety of reasons, such as targeting pesticides instead of spraying from a tractor. Since they do not require a human driver, they are much lighter than other agricultural machinery and therefore do not compact the soil as hard.

Fleet management technology. When it comes to making agriculture more sustainable, it's important to focus on vehicles, as they are a major contributor to increased fossil fuel emissions. Fleet management is a "green" technology that has developed in recent years using advanced GPS systems. These advanced systems provide detailed information on fuel consumption, engine speed and upcoming maintenance. As a result, this technology allows the equipment to be used as efficiently as possible, and farmers save money. Currently, not everyone can use this type of technology due to its high cost.

Digital sensors. Advanced technology available today can control every little aspect of farming and help make the industry more sustainable while reducing its impact on the environment. Sensors can track microclimate data, soil pH, and even animal movements. But this is still a very young technology. Accurate

information helps farmers make informed decisions. Digital sensors allow farmers to increase productivity, save water and fertilizers, reduce waste and increase productivity. This "green" technology is becoming increasingly affordable and accessible, and will soon become a viable option for many countries.

Conclusion

The goal of "green" technologies is to protect the environment, repair past environmental damage, and preserve the Earth's natural resources. "Green" technologies are taking the lead in improving the activity of the agricultural sector. New technologies are being researched and scientists are working hard to make our Earth more stable. The agricultural sector will always be important to humanity, so it is in our future interests to identify the most successful ways to keep it "green" and sustainable.

Agricultural "green" technologies are an effective tool for solving various development problems, but it is still in the nascent stage in many countries, especially in developing countries. Stakeholder cooperation is essential in the development of agricultural "green" technologies, but this aspect is often neglected.

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THE IMPACT OF MIGRATION ON THE DEVELOPMENT OF THE DIGITAL ECONOMY

Said Kurbonov[1]

ABSTRACT

Labor migration serves as one of the primary means for individuals in transition countries to earn money when they are unable to find employment within their own countries. This trend is particularly evident in the migration corridor between Central Asia and the Russian Federation. According to estimates from the United Nations Population Division, approximately 4.96 million people from Central Asia engage in labor migration. The Russian Federation and Kazakhstan host a significant percentage, ranging from 74 to 80 percent, of registered migrants from the Kyrgyz Republic, Tajikistan, and Uzbekistan. Since 2011, remittances have played an increasingly important role in the GDPs of Tajikistan and Kyrgyzstan, surpassing those of any other country worldwide. In Tajikistan, remittances accounted for 28-43 percent of the GDP, while in Kyrgyzstan, the figure was over 30 percent. Notably, more than three-quarters of these remittances originate from the Russian Federation and Kazakhstan.

Keywords: *Central Asian, Digital Economy, Migration, Emigration Trap*

The reliance of Central Asian countries on remittances from labor migrants employed in Russia grants Moscow a lever that enables it to exert influence over Central Asia. Suppose, for example, that Russia were to impose restrictions on migration. In such a scenario, a portion of the migrant workers would be compelled to return to their home countries. This would lead to an increase in the unemployment rate within the migrants' home countries, thereby necessitating higher government spending on social services. Furthermore, the decrease in remittances would result in increased poverty levels and reduced purchasing power among consumers, leading to a situation where the supply of goods and services surpasses demand. Consequently, entrepreneurs would be compelled to scale back production and lay off surplus workers. This would not only augment the population of unemployed individuals within the home country but also result in reduced tax payments by entrepreneurs, further exacerbating the government's debt burden. As this process continued, the macroeconomic equilibrium would be undermined.

The potential occurrence of this scenario raises the notion that donor countries could find themselves in an "emigration trap." The term "emigration trap" refers to a situation in which the economic stability of a country is reliant on the inflow of remittances from migrant workers abroad and is contingent upon the migration policies of destination countries. In such cases, destination countries possess the ability to utilize migration policies as a means to control or influence the economic circumstances of donor countries.

This paper aims to address the following questions:

i) How can the reliance of economies on remittances be measured, and at what stage can a country be considered to have entered the emigration trap? ii) What are the socio-economic implications for Central Asian countries when remittance levels decrease? iii) To what extent do national economies depend on the macroeconomic conditions of recipient countries? iv) How do existing migration flows compare to potential

[1] Deputy Head of the Tashkent city administration of the Chamber of Commerce and Industry of Uzbekistan

migration flows to other destination countries in terms of effectiveness? v) What measures should Central Asian states undertake to break free from the emigration trap?

To answer these questions, a combination of analytical and synthetic approaches, as well as inductive and deductive reasoning, will be employed. The study will involve comparative analysis and econometric panel modeling. Data will be sourced from datasets provided by national statistics committees and international organizations.

Literature Review

The existing literature on the topic can be categorized into two main streams: research focused on the migration process within Central Asian countries and studies on migration in other regions.

Starting with the literature on migration processes, causes, and consequences in countries beyond Central Asia, Shelburne and Palacin conducted a study examining the influence of remittances on economic growth and poverty reduction in transition economies. Their findings indicated that remittances had an overall positive impact on economic growth. However, they also highlighted a negative effect resulting from the emigration of skilled workers. The researchers observed that underdeveloped financial and capital markets hindered the productive utilization of remittance inflows, limiting their potential for fostering development.

In their research on the impact of remittances on economic growth and poverty in the Asia-Pacific region, Imai et al. found a positive relationship between remittances, economic growth, and poverty reduction. However, they also noted that remittance flows could contribute to output shocks during periods of economic uncertainty. As a result, they recommended utilizing remittances for physical and human capital investments. Thagunna and Acharya, focusing on Nepal, reached similar conclusions. They suggested that directing remittances towards public infrastructure investments in developing countries could strengthen the domestic market, improve the business climate, and lead to higher economic returns, ultimately reducing migration flows and diminishing dependence on remittances. Several other scholars have examined migration processes in various countries or regions and reached similar findings, including Tambama (Zimbabwe), Abdullaev (countries of the former Soviet Union), Dilshad (Pakistan), Blouchoutzi and Nikas (Moldova and Albania), Larsson and Angman (99 developing countries), and Fagerheim (ASEAN). However, there was one study focusing on migration in sub-Saharan Africa that yielded contradictory results.

Several scholars have delved into the topic of migration flows specifically in the Central Asian context. Schrooten conducted a study examining the determinants of remittances in the countries of the former Soviet Union. The findings indicated that remittances could be partially explained by income levels. Other significant factors influencing migration and remittance patterns were the performance of the domestic banking sector, institutional quality, and the degree of international integration.

Marat explored the impact of the global financial crisis on the migration flow from Central Asia. The research concluded that the global financial crisis placed Central Asian migrants in a challenging position due to the unfavorable macroeconomic conditions in the Russian Federation.

Akmoldoev's research focused on migration flows from Kyrgyzstan. The study highlighted that the diminishing economic effectiveness of remittances could be attributed to the allocation of remittance funds towards consumption rather than investment.

These studies shed light on various factors influencing migration and remittance patterns in Central Asia.

Delovarova, Shkapyak, and Kukeyeva conducted an analysis of the "Central Asian migration system," which encompasses the five Central Asian countries and Russia. They explored the primary reasons behind Central Asian migration, as well as its consequences and challenges. The researchers recommended enhancing cooperation on key issues, both among the Central Asian countries themselves and between Russia and Central Asia. They emphasized that Kazakhstan possesses significant potential to become a primary destination for migration and a catalyst for reforming migration cooperation within the region. Furthermore, Delovarova et al. examined this process within the broader framework of regionalism and regionalization in Central Asia. They observed a lack of developed transnational cooperation between these countries, with limited initiatives primarily originating from the Russian Federation.

They further concluded that Kazakhstan has the potential to play a crucial role in driving Central Asian integration. They highlighted the underdevelopment of transnational cooperation among the Central Asian countries and suggested that Kazakhstan could help facilitate regional integration efforts.

Sultonov analyzed the impact of remittances in Tajikistan and discovered a positive correlation between remittances and imports. Given the country's high dependence on remittances, he argued that it also becomes highly reliant on imports. To maximize the positive effects of remittance flows, Sultonov recommended that the government implement a long-term policy aimed at encouraging savings and stimulating domestic production of consumer goods.

Danzer, Dietz, and Gatskova conducted an analysis of migrant stock in terms of gender, age, and income level using a household panel survey. They found that despite increasing risks faced by Tajikistani migrants in the Russian Federation, the Tajikistani government has not prioritized job creation and infrastructure improvement as measures to reduce emigration flows from the country.

Malyuchenko also explored labor migration from Central Asia to the Russian Federation. She highlighted that remittances from Russia contribute to improved living standards in the Central Asian countries by boosting consumption and domestic investments. However, due to inadequate infrastructure, these incremental improvements do not significantly impact the economic development of the Central Asian countries. Malyuchenko identified social insurance, health insurance, pension provision, and citizenship as key areas that Central Asian countries should address in negotiations with the Russian government. She further suggested the involvement of international organizations in these negotiations to enhance their effectiveness.

On the other hand, Eromenko discussed the presence of symptoms related to the Dutch disease in Kyrgyzstan and Tajikistan. This condition, caused by significant inflows of foreign currency, leads to the appreciation of the real exchange rate, a decline in tradable sectors, and an increase in non-tradable sectors. Eromenko attributed this phenomenon to the high proportion of remittances in the economies of these countries.

This research paper adds to the current knowledge on the subject by examining the impacts of emigration flows through the utilization of regression models. It also introduces a novel measure of emigration dependence and explores methods to determine the threshold values of this measure, which can indicate whether a country is trapped in a cycle of emigration. Furthermore, the paper compares the effectiveness of different channels of migration.

Trends in Migration and Remittances in Central Asia

During the existence of the Soviet Union, its constituent republics operated as a unified economy and were not self-sufficient entities. The Central Asian countries primarily focused on agriculture, while any existing factories were designed to fit into the larger industrial structure of the Union. Following the collapse of the USSR, the need arose to establish independent economies. Russia had served as the industrial, financial, and regulatory hub of the Soviet Union; however, the country faced a low birth rate, resulting in a labor shortage. On the other hand, the Central Asian states experienced high levels of unemployment as the number of available workers exceeded the job opportunities. As a result, the migration corridor between Central Asia and Russia began to emerge and develop.

It is important to note that this migration corridor did not solely emerge after the dissolution of the USSR. The same dynamics existed during the Soviet era, and the Soviet government addressed them through an internal migration process.

In this section, I will delve into the migration process from Kyrgyzstan, Tajikistan, and Uzbekistan, as well as the flow of remittances from these countries to the Russian Federation. The data regarding migration stock is based on bilateral migration estimates provided by the United Nations Population Division, while remittance information is calculated by the World Bank through bank transfers.

Migration and remittances have significant implications in Central Asia, shaping the economic and social dynamics of the region. Here are some noteworthy trends observed in migration and remittances in Central Asia, supported by relevant statistics:

Outward Migration: Central Asia has witnessed substantial outflows of individuals seeking better economic prospects outside their home countries. Factors such as high unemployment rates, limited job opportunities, and economic disparities within the region contribute to this trend. For example, a study by the International Organization for Migration (IOM) reveals that Tajikistan and Kyrgyzstan, two Central Asian countries, have some of the highest emigration rates globally.

Remittance Inflows: Remittances serve as a vital source of income for households in Central Asia. Migrants working abroad send money back home, bolstering the economies of their home countries. According to the World Bank, in 2020, remittances to Central Asia amounted to approximately $31 billion, with the region receiving the highest remittance inflows as a percentage of GDP globally. This emphasizes the significant role of remittances in supporting livelihoods and economic development in Central Asia.

Dependence on Russia: Russia remains the primary destination for migrants from Central Asia, particularly from Tajikistan, Kyrgyzstan, and Uzbekistan. The Russian economy heavily relies on migrant labor from these countries, especially in sectors like construction, agriculture, and services. Reports indicate that approximately 2.7 million Central Asian migrants were residing in Russia in 2020, contributing both economically and socially to both the host country and their home countries.

Impact of COVID-19: The COVID-19 pandemic has had a profound impact on migration and remittances in Central Asia. Travel restrictions, lockdown measures, and economic downturns disrupted migration flows and remittance inflows. The World Bank estimates a decline of 27.5% in remittance inflows to Central Asia in 2020, reflecting the pandemic's adverse effects on the region's economies and households' incomes.

Digitalization of Remittances: Digital solutions have gained momentum in the remittance landscape of Central Asia. Mobile banking, online platforms, and mobile money services offer convenient and cost-

effective channels for transferring remittances. For instance, in Uzbekistan, the use of digital channels for remittances increased by 52% in 2020, highlighting the growing adoption of digital technologies in facilitating remittance transfers.

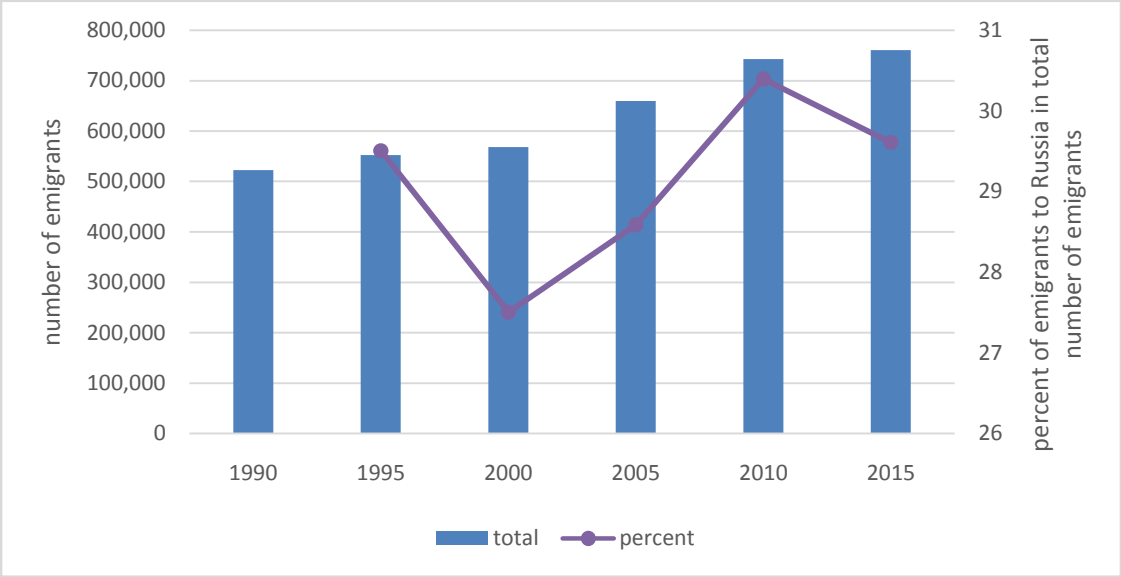
Understanding these trends and statistics related to migration and remittances is essential for policymakers in Central Asia to formulate effective strategies. This includes initiatives focused on improving employment opportunities, reducing barriers to labor mobility, enhancing social integration, and promoting the use of digital platforms to facilitate secure and efficient remittance transfers.

The analysis of migration trends in the Central Asian countries is constrained by the limited availability of data, as information is only accessible up to 2015.

Kyrgyzstan

Migration plays a vital role in the economy of Kyrgyzstan, serving as a means to address unemployment and poverty among the population. From 1990 to 2015, the number of individuals working abroad steadily increased, aligning closely with the growth rate of the economically active population. Consequently, the proportion of emigrants within the labor force remained relatively stable, ranging between 27 and 30 percent of the total (refer to Figure 1). Statistical data reveals that the majority of migrants, approximately 78-82 percent, choose Russia as their preferred destination, while Kazakhstan ranks as the second-largest recipient country.

Figure 1. Number of migrants from Kyrgyzstan and their share of the total labor force, 1990–2015

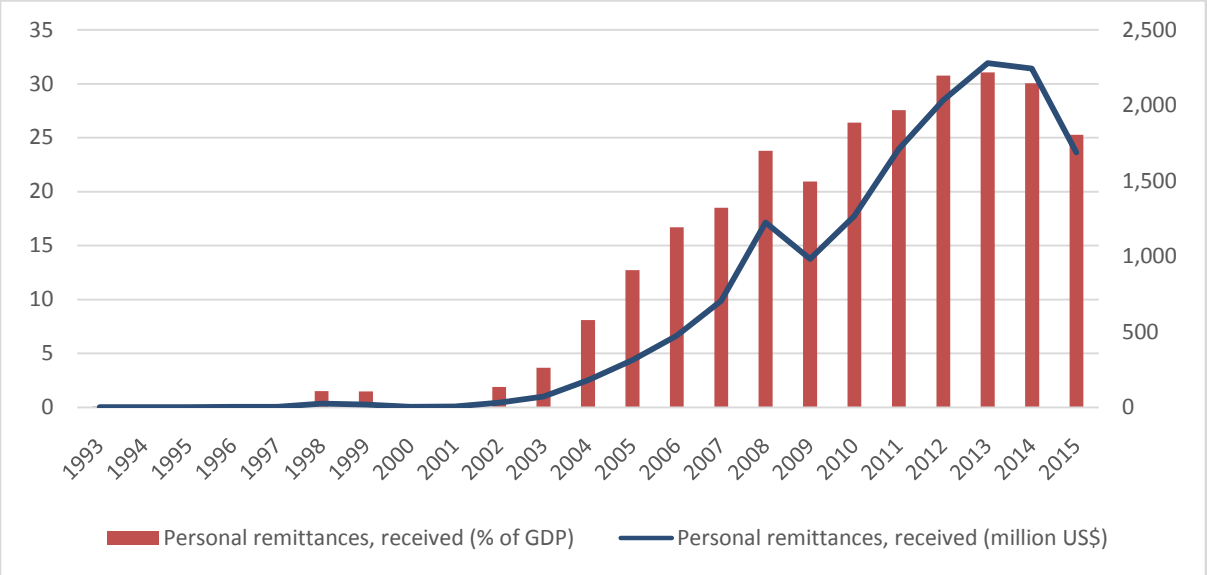


Source: World Bank statistics[1]

[1] Ibid.

During the initial years of independence, migrants from Kyrgyzstan earned relatively low incomes, leading to a limited utilization of bank transfer services for sending money back home. Consequently, it becomes challenging to ascertain the exact amount of money that was remitted to Kyrgyzstan during that period. The lack of transparency in statistics and the absence of tracking mechanisms for remittances by international organizations further contribute to this difficulty. It is important to note that this situation applies not only to Kyrgyzstan but also to all Central Asian countries.

Figure 2. The amount of remittances received and their share of Kyrgyzstan's GDP between 2006 and 2015



Source: World Bank statistics[1]

Based on data from the World Bank, prior to 2002, remittances in Kyrgyzstan constituted less than one percent of the country's GDP, and this proportion remained relatively stable. However, a significant shift occurred thereafter, with remittances experiencing rapid growth. Currently, remittances make up approximately 30 percent of Kyrgyzstan's GDP, amounting to around US$1.7 billion (refer to Figure 2). The majority of these remittances originate from the Russian Federation, accounting for 77-80 percent of the total. This sheds light on the reason behind the decline in the amount of remittances, as well as their share of the GDP, during the global financial crisis.

Migration and remittances have a significant impact on the economic and social dynamics of Kyrgyzstan. Here are the key trends observed in migration and remittances in Kyrgyzstan, supported by relevant statistics:

Outward Migration: Kyrgyzstan experiences substantial emigration as individuals seek better economic prospects abroad. Russia remains the primary destination for Kyrgyz migrants, followed by Kazakhstan and

[1] Ibid.

Turkey. According to the National Statistical Committee of Kyrgyzstan, the number of Kyrgyz citizens working abroad reached approximately 741,000 in 2020, indicating the scale of outward migration.

Remittance Inflows: Remittances play a vital role in Kyrgyzstan's economy, contributing to household income and poverty reduction. In 2020, remittances to Kyrgyzstan amounted to approximately $2.5 billion, equivalent to around 32% of the country's GDP, as reported by the World Bank. This highlights the significant impact of remittances in supporting consumption, investment, and overall economic development.

Dependence on Russia: The Russian labor market plays a crucial role in the migration dynamics of Kyrgyzstan. Remittances from Kyrgyz migrants working in Russia contribute significantly to the country's economy. In 2020, remittances from Russia accounted for approximately 84% of the total remittances received by Kyrgyzstan, according to the National Bank of the Kyrgyz Republic. This heavy reliance on Russia underscores the vulnerability of Kyrgyz migrants to economic fluctuations in the host country.

Labor Migration Policies: The Kyrgyz government has implemented various policies to regulate labor migration and protect the rights of its citizens working abroad. The establishment of migration offices and centers aims to facilitate legal employment and provide support services to migrants. Bilateral agreements with destination countries, particularly Russia and Kazakhstan, prioritize the welfare and rights of Kyrgyz migrant workers.

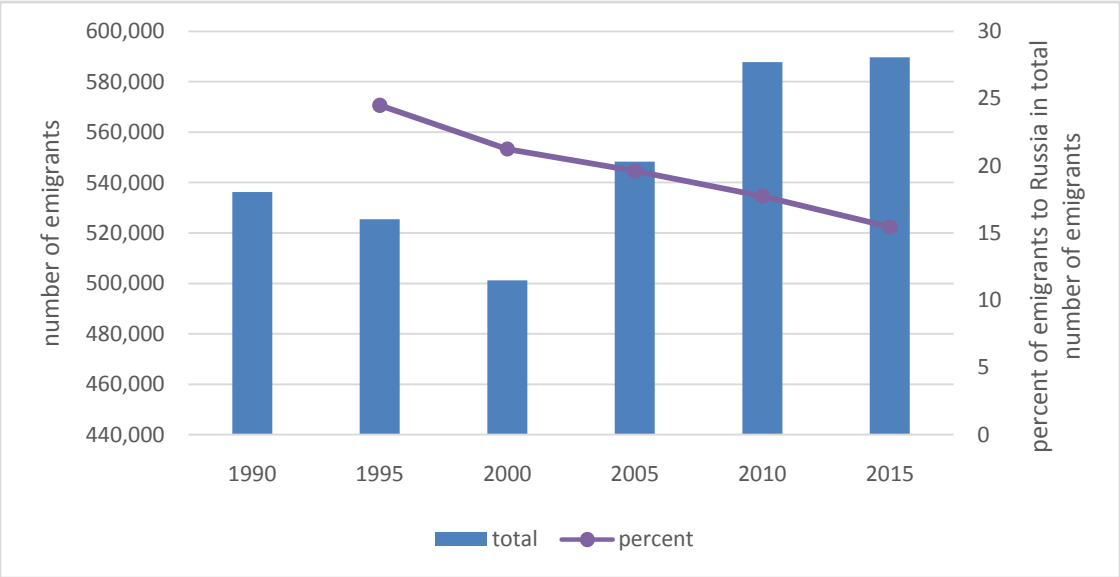
Impact of COVID-19: The COVID-19 pandemic has had a significant impact on migration and remittances in Kyrgyzstan. Travel restrictions, lockdown measures, and economic disruptions have disrupted migration flows and remittance inflows. In 2020, remittances to Kyrgyzstan experienced a contraction of approximately 14%, reflecting the challenges faced by Kyrgyz migrants and their families due to the pandemic, as reported by the World Bank.

Understanding these trends and the associated statistics related to migration and remittances is crucial for policymakers in Kyrgyzstan. Efforts should focus on diversifying the economy, creating job opportunities domestically, and implementing measures to protect the welfare and rights of migrants. Building resilience to external shocks, such as the COVID-19 pandemic, is essential to mitigate the adverse impact on remittance flows and household incomes in Kyrgyzstan.

Tajikistan

Tajikistan, being the poorest country in the region, faces challenges such as inadequate economic infrastructure and a low standard of living. These factors drive a significant portion of the economically active population to seek employment opportunities abroad. The country's development was severely hampered by the civil war that took place from 1992 to 1997, leading some Tajikistanis to rely solely on working abroad, particularly in Russia, as their means of livelihood. The number of emigrants initially declined between 1990 and 2000 but began to increase again, reaching 587,000 in 2015 (refer to Figure 3). During the period from 1995 to 2015, between 15 and 25 percent of the economically active population in Tajikistan worked abroad, with 77-80 percent of them finding employment in the Russian Federation.

Figure 3. Number of migrants from Tajikistan and their share of thetotal labor force, 1990–2015

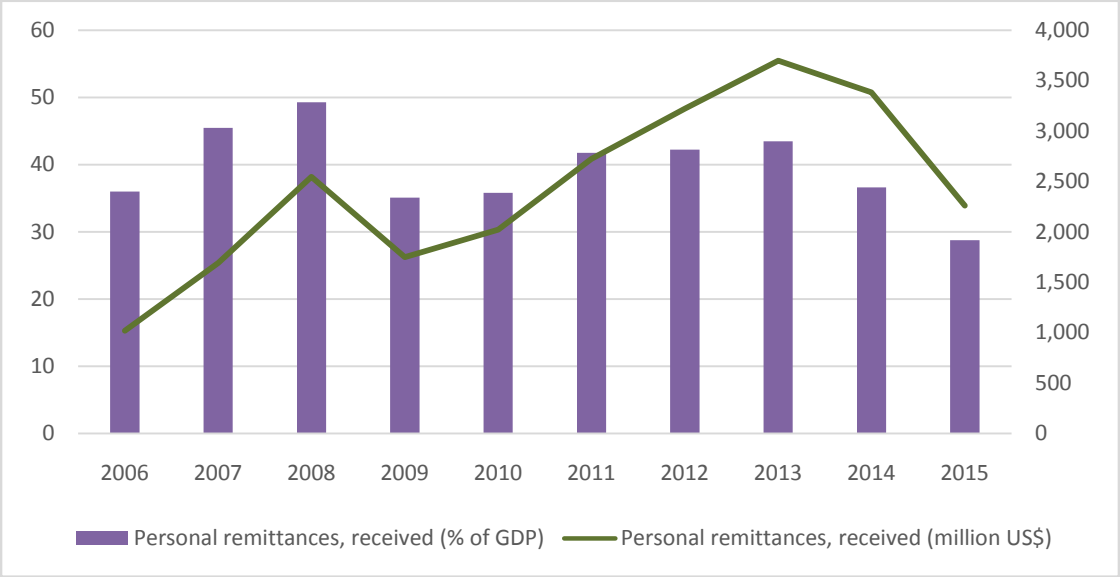


Source: World Bank statistics[1]

To comprehensively analyze the Tajikistani economy's reliance on remittances, it is crucial to examine remittances as a proportion of the country's GDP. Except for the post-2014 period, both the value of remittances and their share of the GDP have shown an upward trend (refer to Figure 4). The peak level of dependence occurred in 2008 when remittances accounted for 49.3 percent of the GDP. Since then, the level of dependence has been gradually decreasing, reaching 28.8 percent in 2015. The substantial reliance on remittances has led many analysts to recommend that the Tajikistani government prioritize the development of domestic infrastructure and diversify the economy by creating new employment opportunities. In fact, some scholars have even cautioned about the potential risks associated with a "migration Dutch disease" in Tajikistan.

[1]Ibid.

Figure 4. The amount of remittances received and their share of Tajikistan's GDP, 2002–2015



Source: World Bank statistics[1]

Migration and remittances have significant implications for Tajikistan, shaping its economic and social landscape. Here are the key trends observed in migration and remittances in Tajikistan, supported by relevant statistics:

Outward Migration: Tajikistan experiences substantial emigration as individuals seek better economic opportunities abroad. Russia remains the primary destination for Tajik migrants, with an estimated 1.1 million Tajik citizens working there in 2020, according to the International Organization for Migration (IOM). This high emigration rate reflects the economic motivations of Tajik nationals in search of employment and higher wages outside their home country.

Remittance Inflows: Remittances constitute a crucial pillar of Tajikistan's economy, providing a significant source of income for many households. In 2020, remittances to Tajikistan amounted to approximately $2.8 billion, accounting for around 29% of the country's GDP, according to the World Bank. This substantial inflow of remittances plays a vital role in poverty reduction, household consumption, and overall economic development in Tajikistan.

Dependence on Russia: Tajikistan's economy heavily relies on remittances from its citizens working in Russia. In 2020, remittances from Russia accounted for approximately 85% of the total remittances received by Tajikistan, as reported by the Central Bank of Tajikistan. This heavy dependence on the Russian labor market exposes Tajik migrants to the economic conditions and challenges of the host country, making them vulnerable to fluctuations in the Russian economy.

Labor Migration Policies: The Tajik government has implemented various policies to regulate labor migration and protect the rights of its citizens working abroad. These measures include the establishment of

[1][1]World Bank, "Migration and Remittances Data," and World Bank, "DataBank."

the State Committee on Investments and State Property Management to oversee labor migration issues. Bilateral agreements with destination countries, particularly Russia, aim to ensure the well-being and rights of Tajik migrant workers.

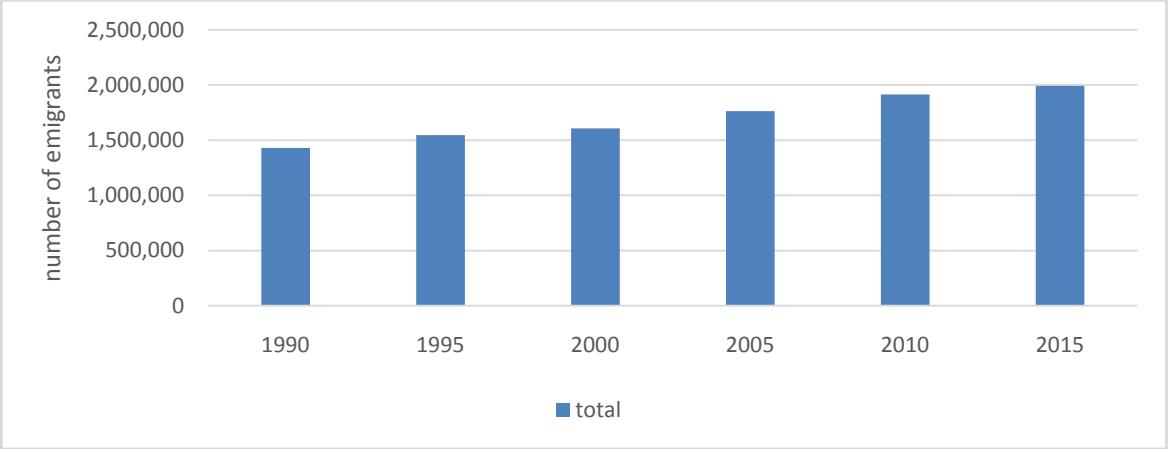
Impact of COVID-19: The COVID-19 pandemic has had a significant impact on migration and remittances in Tajikistan. The closure of borders, travel restrictions, and economic disruptions have severely affected migration flows and remittance inflows. In 2020, remittances to Tajikistan experienced a contraction of about 12%, reflecting the challenges faced by Tajik migrants and their families due to the pandemic, according to the World Bank.

Understanding these trends and the associated statistics related to migration and remittances is crucial for Tajikistan's policymakers. Efforts should focus on diversifying the economy, creating domestic job opportunities, and implementing measures to protect the welfare and rights of migrants. Furthermore, building resilience in the face of external shocks, such as the COVID-19 pandemic, is essential to mitigate the adverse impact on remittance flows and household incomes in Tajikistan.

Uzbekistan

Uzbekistan, with a population of approximately 32 million, is widely recognized for its significant economic potential. Despite having a higher GDP growth rate compared to its neighboring countries, Uzbekistan still grapples with various challenges, including unemployment, weak economic and legal infrastructure, corruption, and a deficient banking system. The average income levels are typically inadequate to meet the cost of living, compelling even individuals with higher education to seek employment abroad, often in construction, retail, and other manual labor occupations. Similar to other nations, the number of migrants from Uzbekistan has increased from 1.4 million in 1990 to approximately 2 million in 2015 (refer to Figure 5). Notably, around 60 percent of all emigrants find work in Russia, and Uzbekistani nationals constitute a significant portion, ranging from 5 to 11 percent, of Russia's migrant population.

Figure 5. Number of migrants from Uzbekistan and their share of the total labor force, 1990–2015

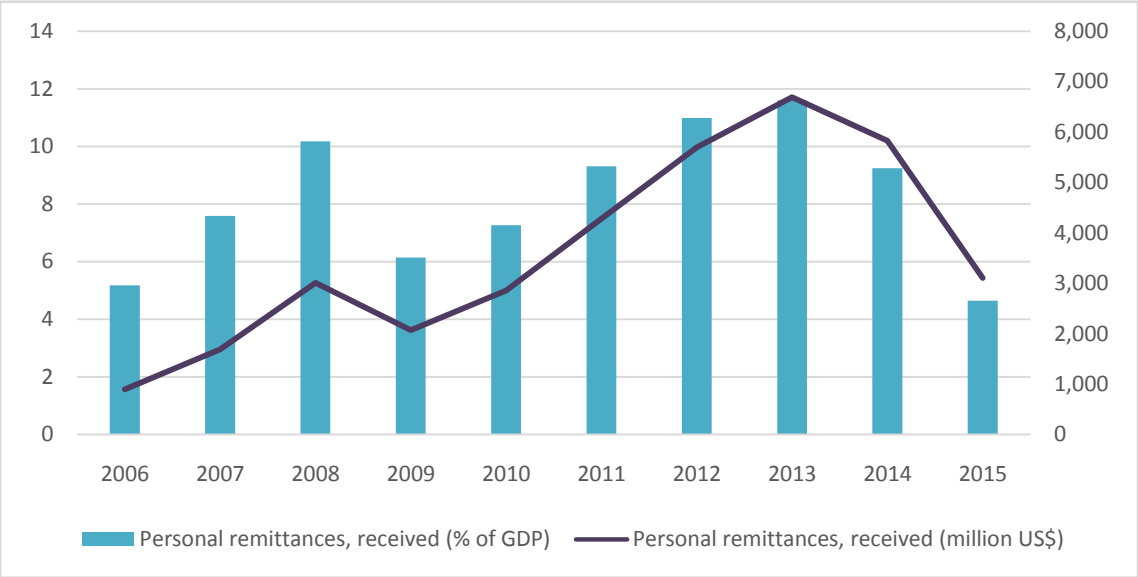


Source: World Bank statistics[1]

[1]Ibid.

According to Figure 6, remittances from Uzbekistan have shown a consistent upward trend, with the exception of the global financial crisis and the period of sanctions against Russia. The peak of remittances was recorded in 2013, reaching a value of US$6.7 billion. However, following the imposition of sanctions, remittances began to decline. The fluctuations in remittance inflows highlight the impact of external factors on the remittance flow to Uzbekistan.

Figure 6. The amount of remittances received and their share of Uzbekistan's GDP, 2006–2015



Source: World Bank statistics[1]

As mentioned earlier, the primary destination for migrants from Central Asia is the Russian Federation. However, Kazakhstan also has the potential to become an important recipient of migrants from neighboring countries. Kyrgyzstan and Tajikistan are particularly dependent on remittances, as migration serves as a major solution to address unemployment and poverty in these nations. In contrast, while Uzbekistan's labor market relies on migrants, the country's economy would not face a macroeconomic crisis in the absence of remittances.

Migration and remittances have significant implications for Uzbekistan, influencing its economic and social landscape. Here are the key trends observed in migration and remittances in Uzbekistan, supported by relevant statistics:

Outward Migration: Uzbekistan experiences significant emigration as individuals seek better economic prospects abroad. The main destinations for Uzbek migrants include Russia, Kazakhstan, South Korea, Turkey, and the United Arab Emirates. Economic factors, such as higher wages and employment opportunities, drive this trend. According to the State Statistics Committee of Uzbekistan, around 4 million Uzbek citizens were working abroad in 2020.

[1]Ibid.

Remittance Inflows: Remittances play a vital role in Uzbekistan's economy, contributing to household income and overall development. In 2020, remittances to Uzbekistan amounted to approximately $6.3 billion, accounting for around 9% of the country's GDP, according to the World Bank. This underscores the significant impact of remittances in supporting consumption, poverty reduction, and investment in Uzbekistan.

Labor Migration Policies: Uzbekistan has implemented policies to facilitate and regulate labor migration. The establishment of the Agency for External Labor Migration aims to protect the rights and welfare of Uzbek migrant workers. Bilateral agreements with destination countries provide a framework for cooperation in ensuring fair treatment and proper working conditions for Uzbek migrants.

Return Migration and Reintegration: In recent years, there has been a noticeable trend of return migration among Uzbek migrants. Many individuals choose to return to Uzbekistan to seize improving economic opportunities and contribute to the country's development. The government has initiated programs to support the reintegration of returning migrants, offering various forms of assistance, including job placement services, business support, and skills training.

Digitalization of Remittances: Uzbekistan has seen an increasing adoption of digital platforms for remittance transfers. Mobile banking and online remittance services have gained popularity among Uzbek migrants, providing convenient, secure, and cost-effective means of sending money back home. The Central Bank of Uzbekistan reported that digital remittances accounted for around 20% of total remittances in 2020, indicating the growing importance of digital channels.

These trends and statistics demonstrate the evolving dynamics of migration and remittances in Uzbekistan. The government's efforts to facilitate labor migration, protect migrant rights, and support return migration contribute to harnessing the benefits of migration for the country's development. Furthermore, the increasing use of digital platforms enhances financial inclusion and efficiency in remittance transfers, benefiting both migrants and their families in Uzbekistan.

The following sections will delve into the extent of economic dependence on migration in Kyrgyzstan, Tajikistan, and Uzbekistan, and explore whether an emigration trap exists in these countries.

Methodology

In order to assess whether these countries are trapped in a cycle of emigration, it is necessary to establish an objective measure of their dependence on migration. Existing literature often uses remittances as a percentage of GDP as a proxy for a country's reliance on remittances. However, this measure focuses solely on income and fails to consider the labor force aspect. It is important to have an indicator that takes into account the impact on both income and the labor force when recipient countries experience a decline in immigrants or implement new immigration restrictions. These changes can have ripple effects on the macroeconomic situation of donor countries.

This paper suggests a methodology for calculating the level of dependence on migration, which involves the following steps:

$$DLE = \sqrt{Rem_{share} * Emig_{share}}$$

Where

DLE isa country’s level of dependence on emigration (%);

$Rem_{share}$is the share of the official GDP comprised of remittances (%); and

$Emig_{share}$is the share of emigrant workers in the economically active population.

The geometric mean is employed instead of the arithmetic mean in order to mitigate the level of substitutability between sub-indicators. This approach ensures that a one-percent decrease in the first sub-indicator has an equal impact on the DLE as a one-percent decrease in the other sub-indicator. By using the geometric mean, the weighting of the sub-indicators is balanced, promoting a more comprehensive assessment of a country's dependence on emigration.

The index presented above assesses the overall dependence of an economy on emigration. However, it is important to consider the concentration of emigration flows, as a high concentration poses greater risks to the macroeconomic situation of a country. To capture this concentration, the paper proposes the use of a market concentration index. Among various options, the Herfindahl-Hirschman Index (HHI) is chosen as the most convenient and effective indicator due to its ease of computation.

$$DLE_{concentration} = \sqrt{Rem_{share} * HHI_{rem} * Emig_{share} * HHI_{emig}}$$

Where

$$HHI_{rem} = \sum_{i=1}^{N} s_i^2$$

$$HHI_{emig} = \sum_{i=1}^{N} g_i^2$$

Where

$s_i$is remittances from country*i*as a share of total remittances;

$g_i$is emigrant workers in country *i*as a share of emigrants from the donor country;and

N is the number of countries where emigrants from the donor country work.

The indicators mentioned above focus on assessing the overall level of dependence of a country. However, this paper aims to specifically analyze the impact of migration policies in recipient countries with a high number of migrant workers on the economic dependence of donor countries. To address this, the following estimate is utilized:

$$DLE_i = \sqrt{Rem_{share} * Rem\_share_i * Emig_{share} * Emig\_share_i}$$

Where

$DLE_i$is the dependence level of the economy on the emigration flow in country *i*;

$Rem_share_i$is remittances from country *i*as a share of total remittances; and

$Emig_share_i$is emigrant workers in country *i*as a share of total emigrant workers.

The threshold at which countries can be considered to be "in" the emigration trap may vary depending on the country. This threshold can be determined by using econometric models that examine the relationship between the macroeconomic situation and emigration flows. If internal indicators have a greater

impact on the macroeconomic situation compared to external indicators related to emigration flows, then the emigration trap is not observed. However, if the economy is significantly influenced by external indicators, indicating a strong dependence on emigration, it may be considered to be in the emigration trap.

In general, the model can be summarized by the following equation:

$$Y = DLE_i * \sum_n (\beta_n * X_{externa\ l_n}) + \sum_m (\beta_m * X_{interna\ l_m}) + \alpha + \varepsilon$$

Where

Y is the macroeconomic indicator (GDP, unemployment, and exchange rate);

X_n isan explanatory variable;

α and β_n are coefficients of variables; and

εis the random error of the model.

If $DLE_i * \sum_n (|(\beta_n| * X_{externa\ l_n}) \geq \sum_m (|\beta_m| * X_{interna\ l_m})$, then there is a high possibility that the economy is in the emigration trap. From this inequality,the limit value of DLE can be calculated:

$$DLE_{limit} = \frac{\sum_m (|\beta_m| * X_{interna\ l_m})}{\sum_n (|(\beta_n| * X_{externa\ l_n})}$$

In this paper, we aim to model three macroeconomic indicators: GDP, unemployment rate, and exchange rate. We employ three regression models to calculate three threshold values for DLE (dependence on emigration). Among these values, the lowest one is considered the most reliable in determining whether an economy is in the emigration trap.

To estimate the dependence of national economies on the macroeconomic situation in recipient countries, the following formula can be utilized:

$$DMSRC = \frac{DLE_i * \sum_n (|(\beta_n| * X_{externa\ l_n})}{DLE_i * \sum_n (|(\beta_n| * X_{externa\ l_n}) + \sum_m (|\beta_m| * X_{interna\ l_m})} = \frac{1}{1 + \frac{\sum_m (|\beta_m| * X_{interna\ l_m})}{DLE_i * \sum_n (|(\beta_n| * X_{externa\ l_n})}}$$

$$= \frac{1}{1 + \frac{DLE_{limit}}{DLE_i}} = \frac{DLE_i}{DLE_i + DLE_{limit}}$$

If the national economy's dependence on the macroeconomic situation in the recipient country (DMSRC) exceeds 0.5, it indicates a significant possibility that the economy is trapped in the cycle of emigration.

To assess the effectiveness of emigration flows in different countries, the value of remittances per migrant is calculated. This comparison helps identify alternative migration corridors that can reduce concentration in a single economy and mitigate the risks of the migration trap. By studying the underlying causes of migration and understanding its direction, policymakers can develop targeted recommendations and strategies.

Regression Models

As previously discussed, determining the threshold value for an economy's dependence on emigration flows involves using three regression models that analyze the key macroeconomic indicators and patterns of macroeconomic equilibrium. The selection of appropriate variables for these models is crucial in achieving accurate results.

To model the Gross Domestic Product (GDP) indicator, we consider the following variables:

Variable	Abbreviation	Unit of measurement
Remittance from the Russian Federation	Rem	US$million
Exchange rate of ruble	Ex_rate_rus	Dollar/ruble
Exchange rate of national currency unit	Ex_rate_nat	Dollar/national currency unit
Net export in Central Asian countries	XN	US$million
Foreign direct investment	FDI	US$million

The aforementioned variables are value-creating indicators and exchange rates, which provide insights into the overall macroeconomic situation of the country. It is anticipated that all coefficients associated with these variables would be positive, indicating a positive relationship with GDP. While there might be other variables that could potentially influence GDP, the lack of available data restricts their inclusion in the model.

To model the unemployment rate, we select the following variables:

Variable	Abbreviation	Unit of measurement
Migrants as a share of the economically active population in the Russian Federation	Emig_share_Rus	%
GDP growth rate	GDP_growth	%
Foreign direct investment as a share of GDP	FDI_share	%

The GDP growth rate is a key indicator that reflects changes in a country's macroeconomic conditions. A thriving macroeconomic situation often results in the creation of new jobs, leading to a decrease in the unemployment rate. When migrants leave their home country to work abroad, they are not counted as part of the unemployed population, contributing to a lower recorded unemployment rate. Additionally, Foreign Direct Investment (FDI) plays a significant role in job creation. If FDI constitutes a substantial portion of the country's GDP, it can help alleviate unemployment. Therefore, in the regression model for the unemployment rate, the coefficients associated with these variables are expected to be negative.

The exchange rate is the third indicator we consider, and the factors that explain fluctuations in the exchange rate are outlined in the table below:

Variable	Abbreviation	Unit of measurement
Remittances from the Russian Federation	Rem	US$billion
Exchange rate of ruble	Ex_rate_rus	US$
Net exports of Central Asian countries	XN	US$billion
Inflation rate	Inf	%

Remittances and net exports are the primary sources of foreign currency in Central Asian countries. The inflation rate is affected by the depreciation of national currencies, and the exchange rate of national currencies is influenced by the value of the Russian ruble due to migrants receiving salaries in rubles. We anticipate a positive correlation coefficient between the exchange rate and all variables except for the inflation rate, which is expected to have a negative coefficient.

Results

To assess the level of remittance dependence in countries, we conducted three regression models. In the GDP model, our econometric analysis revealed that among the variables considered, only remittance amounts and foreign direct investment significantly impact GDP. These two indicators play a crucial role in value creation and can effectively describe other economic cycles as well.

In the unemployment rate model, our econometric analysis led us to include the "share of Russian migrants in the total labor force of countries" and the "GDP growth rate" as explanatory variables. The GDP growth rate helps us understand the functioning of the economy and whether it is generating new job opportunities. Emigration serves as a primary mechanism to address unemployment in these countries.

In the exchange rate model, we made adjustments by excluding the inflation rate and the ruble exchange rate, and instead incorporated the variables "remittances from Russia" and "net exports" to address issues of multicollinearity and endogeneity. These modifications resulted in more optimal models.

In the case of the GDP model, the coefficient of determination exceeds 70 percent for all three countries, indicating a strong relationship between the included variables. However, for the unemployment rate and exchange rate models, the coefficient of determination does not surpass 40 percent. This can be attributed to the presence of omitted variables and limited data availability. Now, let's delve into the specific results of these models for Kyrgyzstan, Tajikistan, and Uzbekistan.

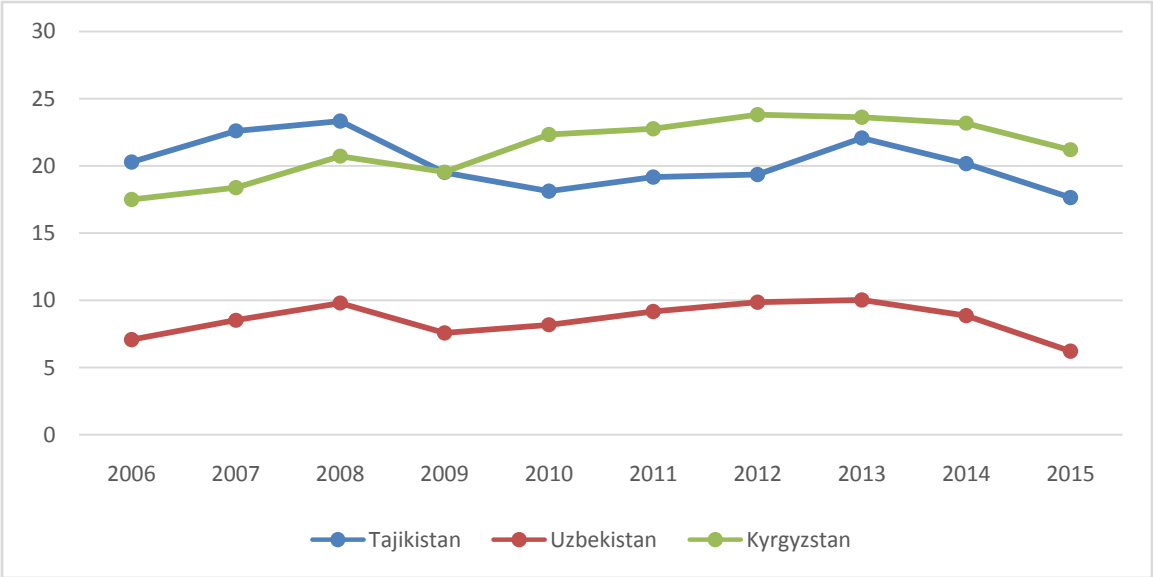
	Kyrgyzstan	Tajikistan	Uzbekistan
GDP			
Rem	9.8901***	9.2693***	56.475***
FDI	1.1956***	0.3876*	9.2599*

const	1705.988***	1521.029**	16588.07*
R square	0.9576	0.8368	0.5027
Unemployment			
Emig_share_Rus	-0.0889*	-0.1043*	-0.0029*
GDP_growth	-0.0138*	-0.0649*	-0.0704*
R square	0.1571	0.1895	0.2022
Exchange rate			
Rem	0.00004*	0.0072*	1,02E-07*
XN	0.00002*	0.0019**	6,15E-08*
R square	0.2745	0.6972	0.5685

In certain cases, the models exhibit low coefficients of determination, indicating a limited ability to explain the variability in the data. Additionally, there are significant coefficients in some models that have a low level of confidence, suggesting a higher degree of uncertainty in their reliability.

Using the regression coefficients and the methodology described earlier, the limit values of dependence on migration were calculated and compared to the actual values of this indicator. In Kyrgyzstan and Tajikistan, the limit values have remained around 0.15 since 2016, while the dependence of their national economies on the macroeconomic situation in recipient countries has been higher than 0.55. On the other hand, Uzbekistan has a limit value of approximately 0.3. When comparing the real values to the limit values, it can be observed that Kyrgyzstan and Tajikistan have been trapped in the cycle of emigration since 2006, while Uzbekistan does not exhibit a high level of dependence on external factors. Figure 9 provides a visual representation of the percentage of emigration dependence experienced by these three countries.

Figure 9.Tajikistan, Uzbekistan, and Kyrgyzstan: levels of emigration dependence, 2006–2015



Source: Author's calculations

Tajikistan and Kyrgyzstan exhibit significant levels of migration dependence, suggesting the possibility of being trapped in the cycle of emigration. On the other hand, Uzbekistan demonstrates a lower level of migration dependence, less than 10 percent, indicating that its economy is not heavily reliant on remittances and migration. It is important to note that the reliability of this conclusion is limited due to insufficient data and the author's calculation of certain omitted indicators. A more confident assessment of the hypothesis could be achieved with the availability of quarterly or monthly data provided by national or international organizations.

Digitalization and migration

Digitalization offers a range of opportunities to tackle migration challenges in Central Asian countries by leveraging its transformative impact on different aspects of the migration process. Analyzing relevant statistics and data highlights the potential benefits of digitalization in overcoming migration problems:

Access to Information and Services: Digital platforms and online resources provide migrants in Central Asian countries with valuable information on migration policies, legal procedures, employment opportunities, and social services in destination countries. For instance, a study conducted by the International Organization for Migration (IOM) found that 70% of migrants in Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan have access to the internet, enabling them to seek information on migration-related matters.

Communication and Connectivity: Digital tools such as social media, messaging apps, and video conferencing facilitate communication and connectivity for Central Asian migrants, allowing them to maintain relationships with their families, communities, and support networks. According to the Central Asia Regional Migration Program (CARMP), approximately 80% of migrants from Central Asian countries use digital communication channels to stay connected with their loved ones.

Remittances and Financial Inclusion: Digital financial services have made remittance transfers more accessible, cost-effective, and secure for migrants in Central Asian countries. The World Bank estimates that in 2019, remittances to Central Asia accounted for over 8% of the region's GDP, totaling approximately $17 billion. The use of digital platforms for remittances has grown significantly, with reports indicating that mobile money transfers in Central Asia increased by 140% between 2017 and 2020.

Data Collection and Policy Development: Digitalization enables more accurate data collection and analysis, aiding evidence-based policymaking in Central Asian countries. Digital platforms, mobile applications, and data analytics contribute to real-time monitoring of migration patterns, labor market demands, and integration outcomes. This information empowers policymakers to design and implement targeted migration policies. For instance, the Central Asia Migration Response Center (CAMRC) actively utilizes digital tools to collect and analyze migration data for evidence-based policy development.

While specific statistics on the impact of digitalization on migration challenges in Central Asian countries might be limited, available data indicates the positive influence of digital technologies. For instance, according to the World Bank, digital remittance transfers to Central Asia have shown resilience during the COVID-19 pandemic, with a 20% increase in digital transactions recorded in the first quarter of 2021.

To fully harness the potential of digitalization, it is crucial to ensure equitable access to digital technologies, protect data privacy, and address any potential risks or vulnerabilities associated with digital platforms in Central Asian countries.

Conclusion

Based on the results of econometric models and data analysis, it is evident that Tajikistan and Kyrgyzstan are sufficiently dependent on migration to be classified as being in the emigration trap. These countries exhibit higher values of the migration dependence indicator than their respective limit values, indicating that their macroeconomic situations are influenced by external factors such as remittances and the macroeconomic conditions of recipient countries. Remittances play a crucial role in addressing various macroeconomic challenges, including unemployment and poverty, in both countries. However, this heavy reliance on a single recipient country, namely Russia, exposes them to the risk of macroeconomic crises if Russia imposes immigration restrictions.

To reduce this dependence, it is crucial for Kyrgyzstan and Tajikistan to invest in economic infrastructure and create more employment opportunities within their domestic markets. Research conducted by Thagunna and Acharya on remittances in Nepal suggests that financing economic infrastructure and promoting domestic job creation are effective strategies for overcoming economic dependence on migration. Additionally, exploring alternative migration destinations can help mitigate the impact of the emigration trap, diversifying the countries' reliance on a single economy like Russia. To provide more specific recommendations, a deeper analysis of migration drivers, vulnerable sectors, barriers to effective economic reforms, and key macroeconomic challenges in Central Asian countries would be necessary.

In conclusion, embracing digitalization in Central Asia has the potential to reduce the region's dependency on migration. By investing in digital skills and education, fostering digital entrepreneurship, facilitating e-commerce and digital trade, enhancing digital government services, promoting remote work and freelancing, strengthening digital infrastructure, and encouraging collaboration and partnerships, Central Asian countries can create new opportunities and address the underlying issues that drive migration. While digitalization alone cannot solve all challenges, it can contribute significantly to sustainable development, economic growth, and a more prosperous future for the region.

HR MANAGEMENT: PERSONNEL AND ITS POWER OF ORGANIZATION'S PERFORMANCE CHALLENGES IN INDIAN IT INDUSTRY

Dileep Tiwari[1], Akanksha Avachare[2], Saloni Priya[3], Shruti Raut[4] , Nikhil Kumar[5], Nishu Kumari[6], Prabhakar Singh Bhadouria[7]

ABSTRACT

Strategic alignment between IT and business areas is crucial for enhancing an organization's performance and competitive advantage. However, most organizations have not assigned responsibility for managing human resources in a way that achieves and sustains strategic alignment. Human resource management (HRM) is an organizational, strategic function dedicated to managing all individuals involved in driving business success. This paper considers the role of HRM tasks and practices in strategic alignment by analyzing 71 relevant research articles from the research fields of IS, business, and organization. The literature review identifies roles relevant to strategic alignment and how individuals in these roles contribute to it. The methodological approach of this literature review is to apply grounded theory to generate rigorous outcomes and new perspectives on previously established areas. The paper aims to provide a systematic overview of the current challenges in industrial/academic management stakeholders in sustaining and improving strategic alignment in organizations. The transformation involves shifting HRM strategically from a downstream secondary process to an interdisciplinary and cross-departmental function that supports multiple areas.

Keywords: *IT firms, Challenges, HRM,Strategic, Business, Growth,*

Introduction

In information systems research, the critical importance of strategic alignment between information technology (IT) and business functions cannot be overstated (**David Wilson 2004**). This alignment is key to enhancing organizational performance, fostering innovation, and gaining a competitive edge in the market. (**Walter Baets1992**)While much attention has been given to executives and managers in this context, the role of non-management personnel, particularly in HR management, has often been overlooked.

[1] Highlake Technology (Highlake Software Pvt. Ltd.), Pune (India) and Hericure Healthcare Pvt. Ltd, Pune (India)[3]Catalysis and Peptide Research Unit, School of Health Sciences, University of KwaZulu-Natal, Durban, (South Africa).

[2] Highlake Technology (Highlake Software Pvt. Ltd.), Pune (India) and Hericure Healthcare Pvt. Ltd, Pune (India)

[3] Ramchandra International Institute of Management, Pune (India) and Highlake Technology (Highlake Software Pvt. Ltd.), Pune (India)

[4] Ramchandra International Institute of Management, Pune (India) and Highlake Technology (Highlake Software Pvt. Ltd.), Pune (India)

[5] Department of Human Resources, Electrodrive powertrain solution Pvt .Ltd. Pune (India)

[6] Ramchandra International Institute of Management, Pune (India)and Highlake Technology (Highlake Software Pvt. Ltd.), Pune (India)

[7] Entrepreneurship Development Cell, Madhav Institute of Technology & Science(Deemed University), Gwalior, MP. (India)

Traditionally, HR management has been viewed as a support function within organizations. However, in today's dynamic business landscape, HRM must evolve into a strategic partner that is central to driving business success and achieving strategic alignment**(Elizabeth White Baker 2014).** This transformation requires HRM to move beyond its traditional boundaries and become an integral part of cross-departmental collaboration that supports various areas within the organization(**Bjorn Cumps, 2009**).

By reviewing existing literature on strategic alignment and HRM, we aim to shed light on the crucial role that HR plays in sustaining strategic alignment**(François Bergeron 2004).** Our analysis reveals how individuals within different roles contribute to this alignment and highlights the impact of various HRM tasks on organizational performance.

Through a grounded theory approach, we have synthesized insights from more than 71 research articles across IS, business, and organizational studies to provide a comprehensive overview of the challenges faced by organizations in managing their human resources effectively**(Leida Chen 2010).** By understanding the roles of different stakeholders involved in strategic alignment, we hope to pave the way for future research that can further enhance our understanding of this complex relationship(**Lior Fink 2009**).

This article provides a systematic overview of the current challenges for organizations to recognize the strategic value of their human resources function and invest in building a strong foundation for sustained success. By aligning HR practices with overall business goals, organizations can unlock new opportunities to growth and innovation in today's competitive IT industry landscape and improve strategic alignment.

Literature and Our Findings

- **Challenges Faced by HR Management**

In today’s competitive business landscape, recruitment plays a pivotal role in shaping the success of any company. Finding the right individuals to join your team can profoundly impact your organization’s productivity, growth, and overall performance. However, the path to hiring the best-fit candidates has its challenges. High employee turnover rates, the challenge of developing effective recruitment strategies, and identifying the perfect match for a specific job role are among the common recruitment challenges faced by businesses.

- **Finding and retaining top talent:** In a competitive job market, attracting qualified candidates and keeping them engaged is a major challenge. HR needs to develop strong employer branding and offer competitive compensation and benefits packages

- **Adapting to change:** The business world is constantly evolving, and HR needs to be agile enough to adapt its policies and practices to keep up. This includes keeping up with technological advancements and changes in regulations.

- **Managing a diverse workforce:** Workforces today are more diverse than ever before in terms of age, race, gender, and sexual orientation. HR needs to create a culture of inclusion and ensure that everyone feels welcome and respected.

- **Employee well-being:** Employee burnout is a major issue, and HR needs to find ways to support employee well-being. This could include offering mental health resources, flexible work arrangements, and wellness programs.

- **Workforce development:** The skills needed for success in the workplace are constantly changing. HR needs to invest in training and development programs to help employees keep their skills up-to-date.
- **Balancing remote, hybrid, and in-office work:** The rise of remote work has created new challenges for HR, such as managing remote teams and ensuring that everyone feels connected. HR needs to develop policies and practices that support all types of work arrangements.
- **Data-driven decision making:** HR is increasingly using data to make decisions about everything from recruitment to performance management. However, HR needs to ensure that they are using data responsibly and ethically.

These are just a few of the challenges faced by HR management today. By staying up-to-date on the latest trends and developing innovative solutions, HR professionals can help their organizations thrive in a changing world.

Let's take a scenario to understand the Challenges faced by HR Management

- We reviewed 100 CVs and identified 80 strong candidates.
- However, only 50 of these candidates were open to changing jobs at this time.

Technical Round Losses: Delays and Communication Issues

- Of the 50 interested candidates, 30 made it to the first technical interview.
- Disappointingly, 20 candidates dropped out due to delays and a lack of communication from the company.

HR Round and Missed Opportunities:

- The remaining 30 candidates proceeded to the final HR round.
- Here, another 10 candidates left frustrated by the lengthy process and communication gaps between the HR consultancy and the company.

The Final Numbers: A Concerning Outcome

- Only 20 candidates reached the final stage, with 2 dropping out due to the extended process.
- Ultimately, just 5% (1 candidate) accepted the position, highlighting the significant impact of a slow hiring process.

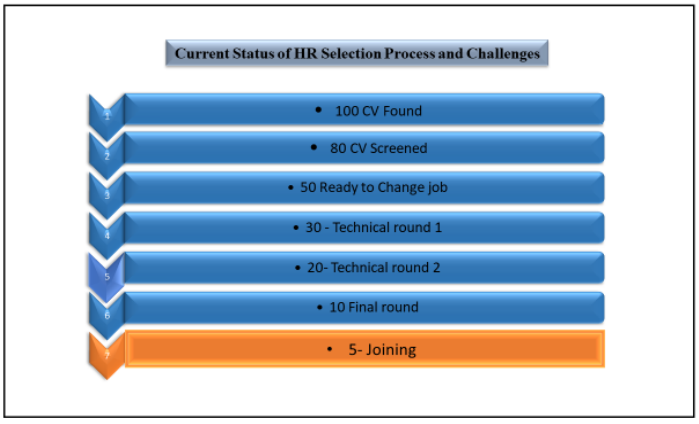


Figure No.1- The diagram you sent shows the current status of the hiring process and the challenges it faces. It tracks the number of candidates remaining at each stage of the recruitment process.

The chart shows that out of 100 applicants, only 5 are selected for joining. The biggest drop-off in candidates happens between the screening and interview stages, where 30 candidates are screened out of the process. There are also reductions in the number of candidates after technical rounds 1 and 2 and the final round

The Importance of Streamlining

This scenario underscores the crucial role of a streamlined hiring process. Byminimizing delays and fostering clear communication, companies can:

- Attract top talent who are actively seeking new opportunities.
- Retain engaged candidates throughout the interview process.
- Increase the likelihood of securing the best fit for the role.

A slow hiring process not only discourages qualified candidates but also reflects poorly on the companyculture, productivity and growth. By implementing efficient practices, companies can enhance their employer brand and secure the talent they need to succeed.

Human Resource Management (HRM) in the IT industry faces several unique challenges that stem from the nature of the industry itself as well as broader business and technological trends. Here are some key challenges

Overcome The Challenges Faced by HR Selection Process

These steps aim to address challenges faced by HR departments, potentially leading to a more efficient hiring process

- Shorter Application Process: Streamline the application process to reduce drop-off
- at the initial stage.
- Clear Communication: Provide timely updates and maintain clear communication
- throughout the process.
- Faster Interview Scheduling: Schedule interviews promptly to keep candidates
- engaged.
- Transparency: Set realistic expectations about timelines and next steps.
- By implementing these strategies, companies can significantly improve their hiring

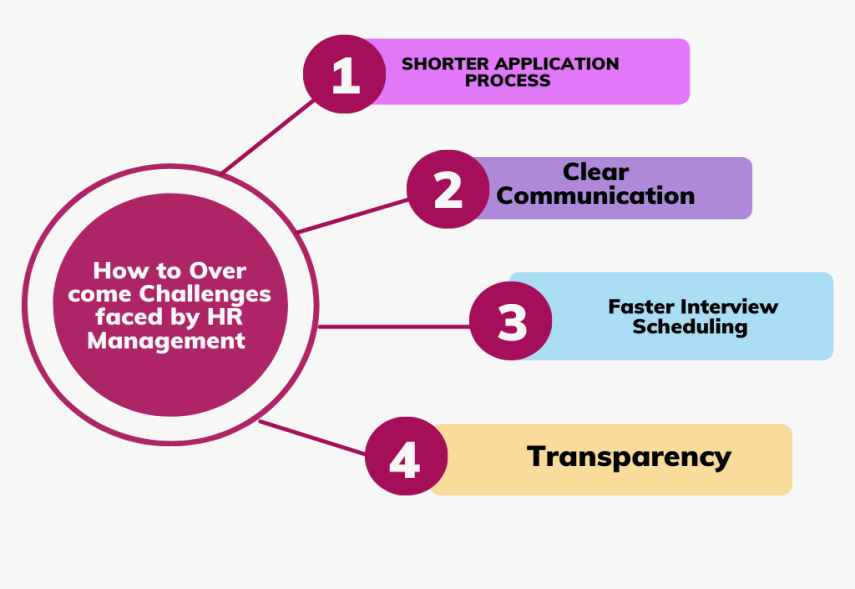


Figure No. 2-How to Overcome Challenges Faced by HR Management". It outlines four steps to improve the recruitment process.

To improve the selection process and reduce the challenges faced by HR, organizationscan implement a more structured and data-driven approach

1. **100 Applicants**
2. **CV Screening**

(Strong candidates with 80% Technical skills matching according to our JD)

CV screening involves evaluating candidates' resumes to assess their suitability for a position based on predefined criteria, such as technical skills, experience, and qualifications outlined in the job description (JD). For strong candidates with an 80% technical skills match, this means their resumes demonstrate a significant alignment with the required technical competencies as specified in the JD

3. Ready to change jobs(HR convincing Skill)

Highlight Company Culture and Values:

- **Appeal to their desires:** People don't just want a job; they want a place where they feel valued and their contributions matter. Explain how your company culture aligns with their interests. Do they value work-life balance, collaboration, or innovation? Highlight aspects of your culture that resonate with their expressed needs.
- **Provide real-life examples:** Don't just list generic statements. Use stories, employee testimonials, or even a tour of the office to showcase your culture in action. Let them see what it's really like to work at your company.
- **Focus on fit:** Explain how your company culture complements their personality and work style. Show them how they'd thrive in your environment.

- **Showcase Opportunities for Growth:**
- **Career paths:** Outline clear career development opportunities within the company. Explain how they can develop their skills and advance their careers with your organization.
- **Learning and development programs:** Highlight any training programs, mentorship opportunities, or tuition reimbursement programs you offer. Show them your commitment to their professional growth.
- **Stretch assignments:** If you offer challenging projects or opportunities to learn new skills, emphasize this during your conversation.

Competitive Compensation and Benefits:

- **Do your research:** Stay informed about industry-standard salaries and benefits packages for similar positions.
- **Competitive offer:** Be prepared to offer a compensation package that is attractive and competitive with the market.
- **Benefits beyond salary:** Highlight the value of your benefits package, including health insurance, retirement plans, paid time off, or other perks.
- **Highlight Company Reputation and Stability:**
- **Industry recognition:** Have you won any awards or recognition within your industry? Sharing this information demonstrates your company's success and standing.
- **Financial stability:** If your company is financially secure, emphasize this. Candidates are more likely to be interested in a company with a strong track record and a promising future.
- **Growth potential:** Is your company experiencing growth? Explain how this translates to career opportunities and job security for new hires.
- By effectively using these HR skills, you can create a compelling offer that attracts top talent and convinces them that your company is the right fit for their next career move.

4.Technical Round-1

prepare them for technical roundsPreparing candidates for technical rounds involves helping them demonstrate their knowledge, problem-solving skills, and ability to apply technical concepts effectively. Here are some steps to effectively prepare candidates for technical interviews

1. Mock Interviews:

- **Practice Makes Perfect:** Simulate a real technical interview by conducting mock interviews with the candidate. This allows them to practice their communication skills, technical problem-solving approach, and response to common interview questions.
- **Technical Expertise:** During the mock interview, ask questions that assess their technical knowledge and understanding of the relevant concepts.
- **Feedback and Improvement:** Provide constructive feedback after the mock interview. Help them identify areas for improvement and refine their approach for the actual interview.

2. Technical Skills Assessment:

- **Evaluate Proficiency:** Use technical skills assessments or coding challenges to evaluate the candidate's proficiency in the required programming languages, tools, and frameworks.
- **Identify Strengths and Weaknesses:** The assessment results can help pinpoint areas where the candidate excels and areas that need further preparation.
- **Targeted Practice:** Based on the assessment results, recommend specific resources like online tutorials, practice problems, or relevant coding exercises to address any skill gaps.

3. Review Common Topics and Concepts:

- **Industry Standards:** Review common technical topics and concepts relevant to the specific industry and job type.
- **Refresh Knowledge:** Provide the candidate with resources like study guides, online courses, or technical documentation to refresh their knowledge on these core areas.
- **Practice Problems:** Practice solving problems related to the identified topics and concepts. This helps solidify their understanding and improve their problem-solving skills under pressure.
- By following these steps, you can effectively prepare candidates for technical interviews. They will be more confident in their abilities, demonstrate their technical knowledge and problem-solving skills effectively, and increase their chances of success in the interview.

5.Technical round 2

Preparing candidates for a second technical round after clearing the first round involves building upon their initial success while addressing more advanced or specific technical challenges. Here's how you can effectively prepare candidates:

The document outlines how to prepare candidates for the second technical interview, building upon their success in the first round. Here's a breakdown of the steps involved:

1. Review Feedback from First Round:

- **Strengths and Weaknesses:** Analyse the feedback from the first round interview. Identify areas where the candidate performed well and areas where they could improve.
- **Focus on Improvement:** Based on the feedback, focus on specific technical areas that require further attention. This might involve delving deeper into concepts discussed in the first round or exploring new, more advanced topics.
- **Tailored Approach:** Personalize the preparation based on the specific interviewer and their area of expertise (if known).

2. Advanced Technical Topics:

- **Increased Complexity:** Introduce more complex technical concepts or delve deeper into topics covered in the first round.

- **Real-world Applications:** Discuss how these advanced technical concepts are applied in real-world scenarios relevant to the job function. This demonstrates a deeper understanding and practical problem-solving skills.
- **Industry Trends:** If relevant to the position, explore current industry trends and advancements in the specific technical area. This shows the candidate is engaged and keeps their knowledge up-to-date.

3. Practice Problem-Solving:

- **Challenge with Complexity:** Provide the candidate with practice problems that are more challenging or complex compared to those they might have encountered in the first round. This helps them demonstrate their ability to handle pressure and solve problems under more demanding conditions.
- **Different Approaches:** Encourage the candidate to explore different approaches to solving the practice problems. This showcases their problem-solving creativity and critical thinking skills.
- **Time Management:** Practice solving problems within a specific timeframe, simulating a real interview environment where time management is crucial.

4. Clarify Doubts and Questions:

- **Open Communication:** Encourage open communication and address any doubts or questions the candidate has about the technical aspects of the job or the company's technology stack.
- **Mock Interview Q&A:** Conduct additional mock interviews focusing on the more advanced topics and potential second-round questions.
- **Confidence Boost:** Clarifying doubts and reinforcing their technical knowledge can significantly boost the candidate's confidence going into the second interview.

By following these steps, you can effectively prepare candidates for the second technical round and increase their chances of success. They will be equipped to handle more complex technical challenges and demonstrate their in-depth knowledge and problem-solving abilities.

6. Final round

Motivating candidates for the final round after successfully navigating through two rounds involves reinforcing their confidence, highlighting the value of the opportunity, and emphasizing the alignment between their skills and the role. Here’s how you can effectively motivate candidates for the final round

The document outlines strategies for motivating candidates who have successfully navigated the first two rounds and are invited for the final interview. Here's a breakdown of the key tactics:

1. Acknowledge Their Progress:

- **Express Appreciation:** Thank the candidate for their time and effort throughout the interview process. Recognize their achievement in reaching the final round.
- **Positive Reinforcement:** Highlight their strong performance in the previous rounds. Mention specific aspects that impressed the interviewers and showcased their skills and experience.

2. Provide Insights into the Final Round:

- **Set Expectations:** Briefly explain the format and structure of the final interview round. This can help alleviate any anxiety and allow the candidate to prepare effectively.
- **Who to Expect:** If possible, share information about who the candidate will be meeting in the final round. Knowing the roles and titles of the interviewers can help them tailor their approach.
- **Focus Areas:** If appropriate, offer some general guidance on the focus areas for the final round. This might include specific topics, behavioral questions, or company culture fit assessments.

3. Highlight Company Culture:

- **Reinforce the Fit:** Reiterate how the candidate's skills and experience align with the company culture and the role's requirements.
- **Company Benefits:** Highlight the company's unique culture, values, and benefits package. This reminds the candidate of the positive aspects of the opportunity.
- **Team Environment:** Share positive aspects of the work environment and team dynamics. This can help the candidate envision themselves thriving in the company.

4. Follow-Up and Encouragement:

- **Stay Connected:** Maintain open communication with the candidate by providing regular updates on the interview process timeline.
- **Encouragement:** Express your continued interest in their candidacy and encourage them to reach out if they have any questions.
- **Positive Attitude:** Maintain a positive and enthusiastic tone throughout your communication. This can boost the candidate's confidence and excitement about the opportunity.

By implementing these strategies, HR managers can effectively motivate candidates for the final interview round. This can help ensure they feel confident, prepared, and excited about the prospect of joining your company.

7. **Onboarding Process**

Welcoming newly selected candidates and making them feel like part of the team even before their start date. Here are some key points for crafting an effective onboarding strategy:

Welcome Package:

- **Information Packet:** Include information about the company culture, values, and mission statement. Explain what makes your organization unique and why it's a great place to work.
- **Company Swag:** A branded t-shirt, water bottle, or other small gift can create a sense of belonging and generate excitement about the new role.
- **Personalized Note:** A handwritten welcome note from the hiring manager or CEO adds a personal touch and shows the company's commitment to its new hires.

Additional Considerations:

- **Pre-Boarding Communication:** Maintain regular communication with the new hire between the offer acceptance and start date.
- **Next Steps:** Outline the pre-boarding steps, such as completing necessary paperwork or setting up their computer access.
- **Warm Welcome:** Plan a warm welcome for the new hire on their first day. This could include introductions to colleagues, a tour of the office, and a team lunch.

Benefits of Effective Onboarding:

- **Increased Retention:** A well-structured onboarding process can significantly improve new hire retention by making them feel valued and supported from the get-go.
- **Improved Productivity:** Proper onboarding helps new hires understand their roles and responsibilities, leading to faster acclimation and increased productivity.
- **Positive Company Culture:** A positive onboarding experience sets the tone for the new hire's relationship with the company and fosters a sense of belonging within the team.

By implementing these suggestions, you can create a welcoming and informative onboarding process that excites new hires about joining your company and sets them up for success in their new roles. This will ultimately contribute to a happier, more engaged, and productive workforce.

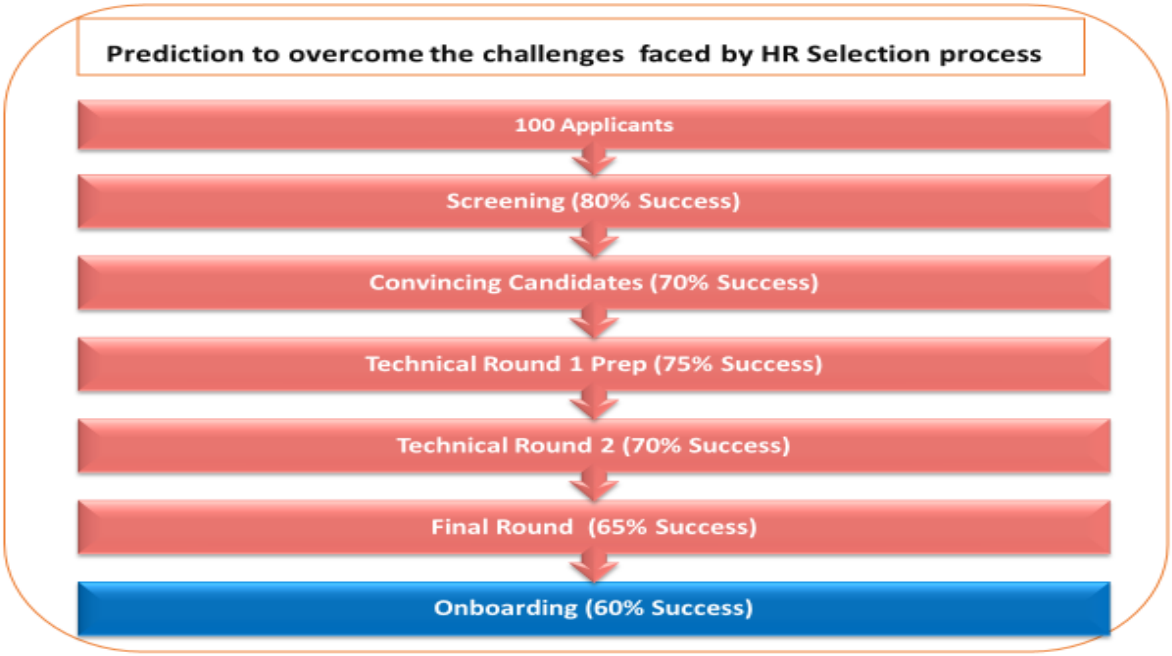


Figure No. 3- "Prediction to Overcome the Challenges Faced by HR Selection Processand improvement". It depicts the stages applicants go through in a recruitment process, along with the likelihood of a candidate succeeding at each stage.

Impact, Benefits, Challenges

1. Impact on Organizational Performance

Figure No. 4- The diagram categorizing different types of workers. It groups workers into three main categories: Contingent Workforce, Part-Time Worker, Outsourced Employee

Organizational structures help businesses make sure that all of the tasks necessary for profitable operations get assigned to the right people. They also guide employees, from staff members to executives, to understand their roles in the company, who they report to, and who they oversee.

Organizational structures also explain how different departments need to work with and support each other. Understanding the impact of organizational structure on employees will help you create the right structure for your small business to improve your operations**(Steve Milano,2021).**

Businesses have several choices when it comes to adopting an organizational structure. Small businesses often start with a flat structure, which delegates all of the decision making to the owner or just a few top staff members.

As companies grow, they often adopt a hierarchical organization structure, which takes a “totem pole” approach to creating layers of management that include executives who oversee department directors, directors who oversee managers, managers who oversee coordinators and supervisors, and finally, staff-level employees.

A matrix organization combines different structures, often along project or product and department or function lines. This leads to multiple “bosses” working together in one area, such as one taking the lead on product development and the other working alongside in a functional role, such as sales, marketing, IT or accounting. This allows different departments to work together because one or more managers have the authority to coordinate their activities**(Steve Milano, 2021).**

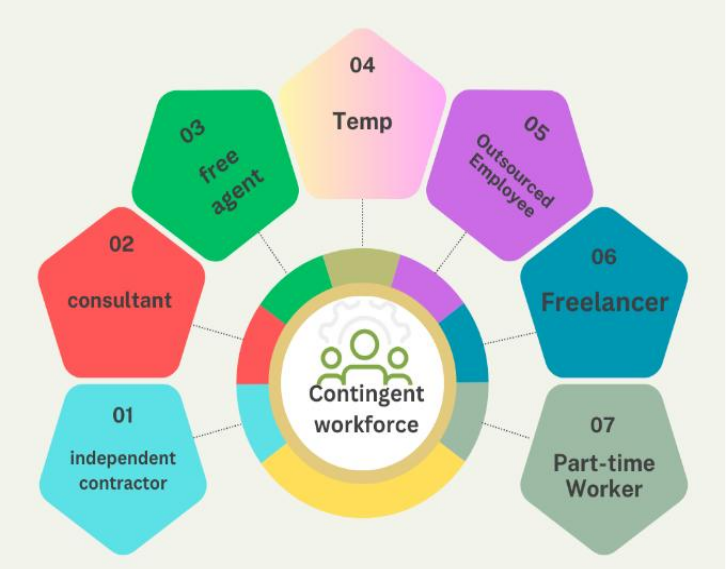


Figure No. 4- The diagram categorizing different types of workers. It groups workers into three main categories: Contingent Workforce, Part-Time Worker, Outsourced Employee

1.1 Improve Overall Operations

When organizations have defined structures, it helps to ensure that all of the necessary tasks of the organization are assigned and set into motion. This is because an organizational chart defines the chain of command, and explains HR solutions provider Datis. A good organizational structure helps eliminate excuses like, “I didn’t know that was my job,” or “I thought it was her job.”

When problems arise, management can call meetings, find the problem, and then identify who is responsible for the issue and/or find the solution. When a business first adopts a new organizational structure, it might experience growing pains.

Don’t be afraid to tweak any new organizational design you introduce at your company – you might even let managers and employees know that you will be beta-testing the new system over the course of several weeks or an entire quarter**(Steve Milano,2021).**

Figure No. 5- The diagram shows that the program offers several benefits, including health and safety benefits, onboarding, and offboarding

1.2 Improves Interdepartmental Communications

One of the main impacts of organizational structure on productivity is that it helps promote effective communication between departments, such as accounting and HR or sales and marketing. When people have a written job description and see their spot on an organization chart, they know their responsibilities and who they are supposed to oversee or support. This helps them know who to go to when they have questions or need to point out potential problems or opportunities.

1.3 Reduces Defects, Returns and Complaints

When employees communicate more effectively, there is less chance they will make mistakes or have to guess what they’re supposed to be doing. This leads to better communications between employees and departments and to fewer errors.

Positive implications of organizational structure include reduced production problems, fewer defective product or service delivery, lower numbers of customer returns, and increased customer satisfaction. It's one thing to for your small business to improve its productivity (the quantity of what you produce); it's another to improve your efficiency (the quality of your employees' and departments' output)(**Steve Milano, 2021).**

1. Challenges of a Contingent Workforce

Managing a contingent workforce presents its own unique set of challenges that organizations need to address effectively(Vidya Tanikella, 2023).Here are some key challenges and strategies to navigate them.

Figure No. 6- The diagram illustrates the challenges of contingent workforce management Lack of centralized management, No objective assessment of the programs and projects, Too many moving parts to gain a bird's-eye view. These challenges can make it difficult for organizations to effectively manage their contingent workforce and optimize the program's benefits.

2.1 Communication and Integration

Challenge: Contingent workers may feel disconnected from the core team, leading to communication gaps and potential challenges in collaboration and knowledge sharing.

Strategy:

- Establish clear communication channels and protocols to ensure effective information flow.
- Provide comprehensive onboarding and orientation to help contingent workers understand the organizational culture, values, and team dynamics.

Foster a sense of inclusion by encouraging regular interaction, team meetings, and collaboration opportunities**(B Vidya Tanikella, 2023).**

2.2 Performance Management

Challenge: Managing the performance of contingent workers can be challenging due to their temporary nature and lack of long-term commitment.

Strategy:

- Clearly define performance expectations, deliverables, and key performance indicators (KPIs) for each contingent worker.
- Implement regular feedback mechanisms to monitor progress, address any issues promptly, and provide guidance for improvement.
- Align goals and objectives of contingent workers with organizational objectives to ensure they contribute effectively to the desired outcome

Compliance ManagementChallenge:

Compliance with labor laws, taxation regulations, and contractor classification can be complex and pose legal risks if not managed properly(**Vidya Tanikella, 2023).**

Strategy:

- Stay updated on relevant labor laws, regulations, and compliance requirements specific to contingent workers in your jurisdiction.
- Engage legal and HR expertise to ensure proper classification of contingent workers and adherence to applicable laws.
- Leverage technology solutions or specialized vendor management systems to streamline compliance processes and minimize risks**(Vidya Tanikella, 2023**).

2.3 Knowledge Transfer and Documentation

Challenge: The frequent turnover of contingent workers can lead to challenges in knowledge transfer, preserving institutional knowledge, and ensuring organizational continuity.

Strategy:

- Develop robust documentation processes to capture project-specific information, best practices, and lessons learned.
- Encourage knowledge sharing and collaboration within teams by using digital platforms, project management tools, and knowledge repositories.
- Implement effective handover processes to ensure a smooth transition when a contingent worker's engagement ends (**Vidya Tanikella, 2023).**

2.4 Cultural Fit and Team Cohesion

Challenge: Introducing contingent workers into existing teams can impact team dynamics and organizational culture if not managed carefully**.**

Strategy:

- Assess cultural fit during the selection process by considering values, work styles, and compatibility with the existing team.
- Facilitate team-building activities that involve both permanent and contingent workers to foster a sense of unity and shared purpose.

Encourage open communication, respect, and inclusivity to build strong relationships and enhance team cohesion (**Vidya Tanikella, 2023).**

2.5 Vendor Management

Challenge: Organizations that engage contingent workers through staffing agencies or third-party vendors face the challenge of effectively managing vendor relationships and ensuring service quality.

Strategy:

- Establish clear service-level agreements (SLAs) with vendors, outlining expectations, deliverables, and performance metrics.
- Regularly evaluate vendor performance and provide feedback to drive continuous improvement.
- Maintain open lines of communication with vendors to address any issues or concerns promptly.

By proactively addressing these challenges, organizations can optimize their contingent workforce management and leverage the benefits of flexibility, specialized expertise, and cost-effectiveness that contingent workers bring to the table (**Vidya Tanikella, 2023**).

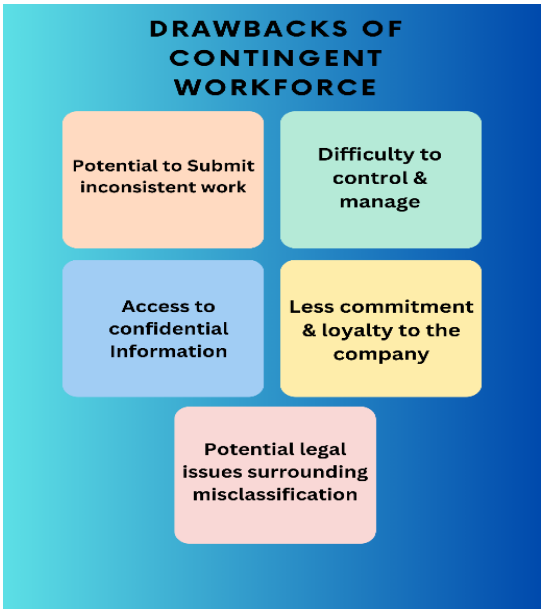


Figure No. 7- The diagram suggests that there are the number of potential drawbacks to using a contingent workforce. Organizations should carefully consider these drawbacks before deciding to use contingent workers

2 Benefits of a Contingent Workforce in the Indian IT Industry

3.1 Benefits of Hiring Contingent Workers

Several organizations prefer to hire contingent workers alongside their regular employees. Below are the main benefits you'll get from hiring contingent workers to carry out some of your tasks**(Christiana Jolaoso, 2024).**

3.2 It Saves Time

Hiring contingent workers means that you will save more time and get jobs completed faster. Contingent workers do not require the usual onboarding and continuous training organizations required for company employees. Also, they are experts who have carried out specific tasks such as designing a website and managing events repeatedly. So they complete tasks in good time**(Christiana Jolaoso, 2024).**

3.3 It Saves Costs

When you hire contingent workers, you'll save operational costs you would typically spend on part-time or full-time workers. For instance, contingent workers do not require heavy onboarding processes or support from your human resources unit. Also, you won't need to sponsor their training or provide them with employee benefits such as paid sick days, paid time off and health insurance or provide them with work equipment**(Christiana Jolaoso, 2024).**

3.4 It Offers More Flexibility

Contingent workers are temporary workers. Since they work on a project-by-project basis, they can supplement your employees with any special skills they lack. These workers form a talent pool you can call when there is an influx of tasks or an urgent or new project, which is different from usual activities. With them, you will not need to pay a salary to a worker, who will not always have a role in your organization**(Christiana Jolaoso,2024).**

3.5 Enjoy Experts' Input

Since contingent workers are not involved with everyday activities in your company, it's easier for them to see existing gaps and provide you with necessary insight on essential aspects of your business. Also, they are skilled in specific areas, so they easily bridge necessary knowledge gaps lacking in your employees**(Christiana Jolaoso, 2024).**

Figure No. 8- The diagram depicts the benefits of a content-based workforce, also referred to as a remote workforce. A content-based workforce refers to employees who are hired based on their skills and expertise to complete specific tasks or projects, rather than their location.

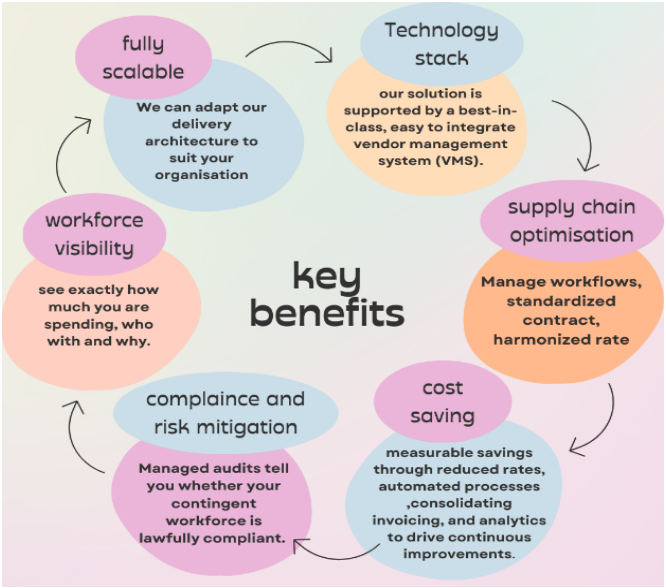


Figure No. 9- The diagram shows the key benefits of a vendor management system (VMS) as part of a fully scalable supply chain .In essence, the diagram suggests that a VMS can help you gain better visibility into your supply chain, optimize your workflows, and reduce costs.

Conclusion

The contingent workforce has revolutionized modern organizational dynamics, providing a strategic advantage through cost-effectiveness and specialized expertise. Freelancers, contractors, and consultants offer tailored skills to address specific project needs and temporary staffing gaps, all without the overhead of long-term employment commitments. This flexibility allows companies to scale their resources efficiently, optimizing both talent utilization and budgetary constraints. However, effectively managing a contingent workforce requires a systematic approach. Integrating these external professionals into the existing team culture while ensuring compliance with labor laws presents ongoing challenges. Advanced Vendor Management Systems (VMS) streamline processes, yet organizations must establish robust frameworks for recruiting, managing performance, and fostering development among contingent workers to maximize their potential contributions.

In industries such as India's dynamic IT sector, the benefits of a well-managed contingent workforce are amplified. Companies can tap into a global talent pool, fostering innovation and enhancing project outcomes through diverse perspectives and specialized skills. This agility enables organizations to stay ahead of market shifts, swiftly adapting to changing demands and maintaining competitive advantages. By prioritizing effective communication, implementing transparent performance metrics, and adhering to rigorous compliance standards, organizations can harness the full potential of their contingent workforce, driving growth and success in today's global marketplace.

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ANALYSIS OF ORGANIZATIONAL ECONOMIC FACTORS AFFECTING THE EFFICIENCY OF COMMUNICATION SERVICES

KhazratovA.P.[1]

ABSTRACT

The special attention is paid to the analysis of organizational economic factors affecting the effectiveness of communication servicesin this scientific article. A number of organizational and economic factors influence the formation of the volume of services provided to consumers by telecommunication enterprises, their costs and the final, positive financial result. From the point of view of the impact of these factors on the results, proposals and recommendations for dividing into internal and external, as well as direct and indirect influencing factors were developed and expressed through formulas.

Keywords- *Communication Service, Communication Network, Competition, Economic, Social, Efficiency, Demand, Labor Resources.*

I. INTRODUCTION

In our country, more importance is being attached to the development of telecommunication services. As a result of the implementation of the service sector development program in 2021-2023, the volume of service provision increased by almost 20% in 2021. At the same time, by introducing new approaches to the development of the service sector, opportunities have been created to increase the volume of market services by 1.5 times in 2022 and create an additional 1.5 million new jobs.

One of the important tasks of today is to develop the service sector based on the specific characteristics of the regions, to provide business entities with financial resources and infrastructure, and to provide them with comfortable living conditions and communication services. As the population's need to acquire information is accelerating, so is the need for accurate and high-quality presentation of information.

II. LITERATURE REVIEW

It created a great need for new methods of communication that provide an opportunity to quickly convey information. As a result, by the end of the eighteenth century, optical communication appeared, and by the nineteenth century, electrical methods of high-speed transmission of information by wire were discovered. P. L. Shilling created the electric telegraph in 1832 [2]. S. Morse [3]created the electromagnetic telegraph device in in 1837, and by 1876, Scottish inventor A.G. Bell invented the telephone [4].

[1] PhD, Docent of the "Real Economy" department of the Samarkand Institute of Economics and Service. Uzbekistan.

[2]Telegram history. https://ziyouz.uz/ilm-va-fan/tekhnologiya/telegraf-tarihi

[3]In that place

[4]Telegram history. https://ziyouz.uz/ilm-va-fan/tekhnologiya/telegraf-tarihi

Russian scientist E.A. Golubtskaya in her textbook “Economics of Communications: A Textbook for University Students” says: " Communication economics is a branch of economics, the subject of which is production relations in the field of communication and the laws of their development in relation to productive forces in the conditions of market relations. is "- defined [1].

E.A. Golubtskaya's second e-book “Bank of lectures. Economics of Communication” – “Communication service is the final useful result of the production activity of communication operators (organizations) on data transfer (for example, long-distance telephone conversations, telegrams or mails sent and received)” - pushes[2]

“Introduction to communication definition of communication” by G. G. Brown, the communication service is defined as follows. “Communication is the transfer of information from one person to another, whether it is reliable or not”[3].

III. RESEARCH METHODOLOGY

Systematic analysis, analysis and synthesis, induction and deduction, logical approach, selective observation, economic-mathematical, statistical and economic analysis methods were used in the research process.

IV. ANALYSIS AND RESULTS

The rapid progress of the process of digitalization of the economy in our country has brought the demand for communication services to a high level. For this reason, the motivation of many of our citizens to engage in entrepreneurship in this field has increased, and the information and communication network is becoming one of the leading subjects of the national economy.

It is known that an entrepreneur does not spend money on a business that does not make a profit. Business entities, including communication service enterprises, incur material and monetary costs in the course of their activities. Cost is the main condition for profit.

The ability of enterprises to spend is the main factor that determines their ability to produce products and provide services.

For this reason, entrepreneurs do not organize their activities without having complete information about the processes of product production and service provision, costs and profits related to them. Having complete information about them is useful for effective management of production and service processes.

At the height of competition in the communication network, the main task of every enterprise in it is to operate efficiently, that is , to achieve profit by increasing the volume of manufactured products and

[1]Golubitskaya E.A. Telecommunications Economics: a textbook for university students / E.A. Golubitskaya; — M.: IRIAS, 2006. - 488 p. ISBN 5-93592-020-4

[2]Golubitskaya E.A. Bank lecture. Economics connection. https://siblec.ru/obshchestvennye-nauki/ekonomika-svyazi.

[3]G.G.Brown. Introduction to communicationdefinition of communication .https://architecture.uonbi. ac.ke/sites/default/files/cae/builtenviron/architecture.pdf

satisfying consumer demand more fullydescribes production in natural (product) form , and economic effect in monetary form.[1]

It should be noted that the concept of "efficiency" is extremely broad. It reflects the ratio of the results obtained to the costs.

The main goal of telecommunication enterprises is to meet the demand of the entire entity under risk and initiative and to achieve fair economic and social (social) efficiency.

"Economic and social efficiency is created directly in the enterprises themselves - thanks to the work of the workers, in the relations between them. They complement each other. In any enterprise, the social efficiency is high, the economic efficiency is correspondingly high. This is an axiom [2]. "

Economic efficiency in communication enterprises is the result of economic activity (management, introduction of new equipment and technology, improvement of labor quality, etc.).

" **Social effectiveness** is manifested through activities that help a person to develop in all aspects. It is reflected in the improvement of working and living conditions, improvement of staff qualifications. Also, social efficiency is reflected in the consumption of goods (work and services) per capita, allowances and benefits from social consumption funds, and the growth of funds spent on personnel training [3].

Therefore, efficiency is a "mirror" of the activities of communication enterprises, which reflects all the results of service provision.

By increasing the efficiency of communication enterprises, various resources (electricity, raw materials, etc.) and people's time will be saved, relations between market infrastructures will develop, and the country's treasury will be enriched. To achieve this, of course, it is necessary to create an appropriate organizational and economic environment in the country.

A number of organizational and economic factors influence the formation of the volume of services provided to consumers by telecommunication enterprises, their costs and the final, positive financial result. In terms of the impact of these factors on the resulting indicators , we can divide them into internal and external, as well as direct and indirect influencing factors (Fig. 1).

Figure 1. Factors affecting the product (service) volume and profit of communication enterprises

Direct influencing factors	Indirect influencing factors
1. Population, income and purchasing fund 2. Number of consumer legal entities 3. Types of services	1. International relations of the state 2. The state of the legal framework in the country (including the legal guarantee of the activities of enterprises)

[1]For communication enterprises, the final result of production activity is a product, and for consumers it is considered a service .Since the process of production of communication services is inextricably linked with the process of their consumption, the volume of gross product in communication enterprises is equal to the volume of sold products.

[2]Shavqiev E. and others. Enterprise economy (text of lectures), Part II. - Samarkand: SamISI, 2016, 7 pages

[3]In that place

4. Service tariff (price) 5. Forecasts of the national economy (coefficient of elasticity of consumption and savings funds) 6. Other direct factors	3. The level of culture of the population 4. The level of scientific and technical development in the country and region 5. Level of service provision 6. Other indirect factors

Some of the above factors have a positive effect on the volume of products (services), profit and efficiency of the entities of the communication network, and serve to increase these indicators, while some of them can lead to the opposite - a decrease in economic indicators.

Quantitative and qualitative study of the influence of factors in the analysis of the economic and financial situation of enterprises serves to make effective decisions.

The efficiency of communication enterprises depends on a number of internal and external factors. To a large extent, the efficiency of the enterprise depends on the demand formed in the external environment.

The formation of the demand for communication services depends on the policies (price, advertising, etc.) carried out in network enterprises. Properly organized service policy helps to form internal and external requirements for communication services and increase the efficiency of communication enterprises.

Advertising has a high place in the market of communication services. That is why it is appropriate to look at the advertising policy as a factor of increasing efficiency.

Based on the system of efficiency of communication enterprises, a system of indicators representing their efficiency is formed. The efficiency of communication service enterprises represents the achievement of the set goal by spending less money. In them, efficiency is determined by the following indicator systems:

- Production-technological efficiency - represents the level of use of material and labor resources and is determined by indicators such as return of funds, fund capacity, labor productivity;
- Production-economic efficiency is measured by general production performance indicators: gross product (service) value, profit, profitability, cost recovery.

These system indicators represent the following groups:

1. Indicators of general economic efficiency (gross product (service) value, cost efficiency, cost profitability);

2. Resource efficiency indicators;

- Indicators representing the efficiency of the main funds (return of funds, capacity of funds, profitability of funds and profit);
- Indicators representing the efficiency of working capital (speed of circulation of working capital - in days, times, profitability of working capital);
- Indicators representing the efficiency of labor resources (labor productivity, profit per employee, profit per soum of the wage fund).

In the evaluation of the state of efficiency in communication enterprises, the assessment of the volume of products (services) and the composition of costs has a special place. Because by studying the volume of

services and the composition of costs, it will be shown which items can reduce costs and increase efficiency: increase in taxes, etc.

When determining efficiency in communication enterprises, the gross product (service) value, that is, the income from the main activity, is taken as a result indicator. That is why it is advisable to clarify the elements included in it.

Since the process of production of communication services is inextricably linked with the process of their consumption, the gross product value in communication enterprises is equal to the value of the provided services.

Due to the peculiarities of production of communication services, it is almost impossible to calculate the cost of each offered product, however, the price should be appropriate for them.

One of the important stages of the economic analysis is the estimation of the total amount of traffic. Traffic is the total number of minutes used by all active commercial subscribers during the analyzed period. The average number of minutes per subscriber per day, taking into account weekdays and weekends, is taken as a unit of exchange. The total number of exchanges (minutes) per month (Us) can be determined as follows:

$$Us = D * A * O$$

here,

D – average number of minutes per daily subscriber;

A - number of subscribers;

O is the number of days in a month.

To determine the number of days in a month (O), first, the number of minutes on weekdays and weekends in a month is calculated separately , and then an interval coefficient equal to the ratio of the number of minutes on weekends and weekdays is determined.

The calculation of the given days in a month - working days and weekends is related to the unevenness of the load and is carried out as follows:

$$ID = I + K * B$$

here,

I - number of working days;

K - intermediate coefficient;

B - the number of days off.

Each operator has a separate (individual) structure of traffic distribution by routes.

The operator's proximity to capital cities, resort areas, and busy highways has a significant impact on traffic composition.

The quality of communication services can be assessed using two groups of indicators describing the quality of service and the quality of communication services:

I. The quality of customer service is determined by the following factors:

- The level of coverage of the territory served by the operator;
- The number of advanced forms and methods of customer service;
- Population coverage level;

II. The quality of communication services is characterized by indicators of the most important characteristics:

- Speed of information transfer;
- Accuracy, reliability and security of transmission and reproduction of messages;
- Confidentiality of information transmission, secrecy of communication;
- Reliability and stability of technical means and communication systems;
- Availability of communication services;
- Ease of use, aesthetics and environmental safety, etc.

It is appropriate to analyze the participants of the market of communication services separately according to the forms of ownership. Because the effectiveness of communication enterprises depends to a large extent on their form of ownership.

Private, foreign and joint property owners are the ones who create a competitive environment in the market of communication services and fight in it.

Table 1 : **Communication services on forms of ownership in Uzbekistan**[1]

(percent of total)

t/r	Property forms	2016 year	2017 year	2018 year	2019 year
1	State	1.8	1.8	2.2	2.5
2	Non-state	98.2	98.2	97.8	97.5
	Total	100.0	100.0	100.0	100.0

As can be seen from Table 1, as a result of the implementation of large-scale economic reforms in our country, the share of non-state enterprises in the market of communication services is higher than 9/10. However, in 2019 it decreased by 0.7 points compared to 2016. The reason for this can be explained by the emergence of state-owned enterprises based on private partnership in the composition of communication service entities.

[1]Transport and communication in Uzbekistan. -T:. State Statistics Committee of the Republic of Uzbekistan, 2020, 87 pages

However, it should be noted that the main enterprises of this form of ownership are small enterprises and micro-enterprises, which do not have a number of reporting forms that provide sufficient information to calculate a number of performance indicators and study the composition of services.

In the conditions of lack of financial resources, technical means and other resources in communication service enterprises of different forms of ownership, the joint use of technical means, money, specialist staff and others among them (establishment of communication service cooperatives) is highly effective.

According to research, a number of factors affect the efficiency of fixed assets in communication services enterprises. Factors such as the share of the asset part of fixed assets, productivity of fixed assets, standard idle time of fixed assets, idleness of fixed assets due to various reasons, qualification of employees can be included among these factors.

It is possible to determine the level of influence of the factors affecting the efficiency of the main funds of communication enterprises in different ways. For example, the recalculation method of economic analysis can be used to calculate the factors affecting the change in the volume of services corresponding to each job.

The recalculation method can be used when two functional factors affect the efficiency of using each job. That is, it is functionally related to the efficiency of the use of jobs (S), the volume of services (Vs) and the number of jobs (I).

$$S = Vs : I$$

According to this formula, two factors affect the result. We recalculate the result to calculate the effect of each factor. It is determined by dividing the actual amount of this first factor (Vs_1) by the planned amount of the second factor (I_0), that is:

$$S = Vs_1 : I_0$$

When determining the efficiency indicators of the activities of communication enterprises, it is necessary to pay special attention to the efficiency indicators of working capital. In this case, it is appropriate to determine the indicators of turnover and profitability of working capital, to assess the factors affecting them.

In the course of research, the state of the legal framework, which affects the efficiency of industry entities, is also deeply studied as a factor that indirectly affects the efficiency of communication enterprises.

Daily life shows that the level of legal guarantee of the activity of industry subjects is somewhat low. For this reason, in recent years, a number of new legal-regulatory documents have been adopted in our country, which legally strengthen the activities of communication enterprises, including " About the Post Office of the Republic of Uzbekistan" (June 9, 2022). They will be the legal basis of a number of issues related to the activity of communication service enterprises.

V. CONCLUSION/RECOMMENDATIONS

Special importance is attached to scientific research on improving the organizational and economic mechanisms of the development of the market of communication services. In this regard, such issues as managing the communication service network, increasing its position in the economy, creating new jobs, ensuring the economic and social development of countries, implementing new service types of the network, and using innovative factors have been reflected in the scientific works of foreign scientistsin many countries.

The issue of improving the organizational and economic mechanism of the development of the market of communication services in accordance with world standards has not been fully studiedin our country. Therefore, it is urgent to conduct research on this topic in our country.

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ANALYSIS OF UZBEKISTAN LIGHT INDUSTRY NETWORK DEVELOPMENT AND EFFICIENCY OF USING ECONOMIC RESOURCES IN ENTERPRISES

Doniyorova Shakhnoza Doniyorovna[1]

ABSTRACT

The article reveals the high level of formation of industrial sectors in the next ten years and, as a result, Uzbekistan ranks among the industrially developed countries of the world. The development of light industry in Uzbekistan and the increase in the export capacity of finished products from year to year are explained on the basis of statistical data.

Keywords*: industrial sector industrial sector, production, enterprise, industrial economy, efficiency, labor resources, effective use of labor resources, enterprise management, personnel system, export level.*

Introduction.

It is known that the economic potential of any country is evaluated by the degree to which its industrial production is developed. For this reason, the development of all branches of industry in our country, increasing their competitiveness, and for this, it is necessary to use all the tools suitable for market relations, the newest experiences, very efficiently.

Industrial production was formed at a particularly high level during the next ten years, as a result of which Uzbekistan became one of the industrially developed countries of the world. The Republic of Uzbekistan has all the opportunities for further improvement of industrial sectors, that is, very high material, labor, financial and intellectual resources. With the help of their rational use, it is possible to turn the republic's industry into a powerful industry and raise it to a higher level in terms of efficiency.

One of the main goals of the country's structural policy is to ensure the competitiveness of Uzbekistan's economy by implementing structural restructuring in the industry. Therefore, it is necessary to study and analyze the structure of the industrial sector and pay special attention to the most effective sectors for the production of industrial products.

In order to describe the structure of industrial sectors, it is necessary to determine quantitative ratios that represent certain production relationships between certain sectors. Several indicators are used to solve this problem. One of them represents the relations between sectors, the second represents structural changes within a certain period, and the third represents production relations.

Today, the experience of developed countries shows that achieving sustainable economic growth is primarily related to the level of effective use of the available resource potential in the regions. In the priority direction of economic development and liberalization of the "Strategy of Actions for Further Development of the Republic of Uzbekistan" of the President of the Republic of Uzbekistan dated February 7, 2017, maintaining high economic growth rates in our country and the comprehensive and comprehensive development of regions, districts and cities special attention is paid to proportional development, effective use of their existing potential.

The implementation of these tasks defined in the action strategy serves to a certain extent to accelerate socio-economic development in the regions, to increase the living standards and incomes of the people, as well as to ensure comprehensive and effective use of natural, mineral-raw, industrial and labor potential.

[1] Tashkent State Economy University, Independent Researcher

The effective use of resource potential in industrial enterprises is always important, its comprehensive analysis and the study of the possibilities of effective use of existing natural resource potential is one of the urgent problems.

Literature review

Today, textile enterprises occupy an important place in the production process in our Republic. Ensuring the quality of the products produced in textile enterprises in accordance with world standards of cotton fiber, kalava yarn, dyed kalava yarn, thread gauze, knitted fabric, and silk raw materials is one of the urgent problems. In order to solve this problem, in recent years, new enterprises and devices and machines are being introduced in textile enterprises that meet the demand. Government decisions on the further development of the textile industry have been adopted at the level of the Republic, including: - "Uzbekistan-2030 strategy" The demand for textile products in our country is extremely high, and in order to meet these needs, the textile industry is cooperating with developed countries. joint ventures are being opened on the basis of a contract (Decree 2017). - Decision of the President of the Republic of Uzbekistan dated September 16, 2019 No. PQ-4453 "On measures to promote the further development of light industry and production of finished products" (Decision, 2019). - Decree No. PF5285 of the President of the Republic of Uzbekistan dated December 14, 2017 "On measures for rapid development of the textile and sewing-knitting industry" (Decree 2017y). There are a number of cases in improving the organizational and economic activity of textile enterprises. Currently, many textile enterprises depend on financial, labor and material utilization indicators to increase their efficiency. Enterprises whose financial condition is deteriorating are mainly maintaining current indicators, and economic indicators are being achieved in enterprises based on modern technologies and by improving the skills of qualified employees.

Analysis and discussion of results

According to the Statistics Agency under the President of the Republic of Uzbekistan, as a result of the changes made in the structure of the industrial complex in terms of economic activity, growth rates were observed in the total volume of industrial products in all sectors. (Table 1).

Table 1 : Volume of production of industrial products by types of economic activity (in %)

Tarmoqlar	2017	2018	2019	2020	2021	2022	2023
Sanoat mahsuloti	105,2	110,8	105	100,9	108,8	105,3	106,3
Ishlab chiqarish sanoati	104,2	107,9	106,6	107,9	108,3	105,4	107,4
To‘qimachilik mahsulotlari ishlab chiqarish	100,5	107,4	105,3	117,4	119,5	109,9	106,4
Kiyim ishlab chiqarish	110,5	103,3	108,7	107,2	118,7	105,8	112,7
Teri va unga tegishli mahsulotlar ishlab chiqarish	111,2	94,6	78	97,4	103,9	104,3	105,9
Yog‘och va po‘kak buyumlar (mebeldan tashqari), pohol va to‘qish uchun materiallardan buyumlar ishlab chiqarish	104,1	156	85,3	88,1	129,2	104,2	96
Qog‘oz va qog‘oz mahsulotlari ishlab chiqarish	104,2	104,5	111,6	106,4	115,4	114,6	110,3
Yozilgan materiallarni nashr qilish va aks ettirish	106,3	96,2	98,1	76,3	127,8	140,5	84,9
Mebel ishlab chiqarish	107,2	102,2	106,7	107,7	108,1	104,4	106,6
Boshqa tayyor buyumlar ishlab chiqarish	88,6	96,4	109,9	110,3	109,7	95,5	115,8

Table 1 shows that in 2023, compared to 2017, the total industrial production increased by 106.3%, while the share of textile production and clothing production was 100.5%, 110.5%. increased from 106.4% to 112.7%. It can also be seen from the data of this table that there have been similar changes in other sectors of the industry.

Today, the light industry is developing every year, including the introduction of new production technologies, the use of high-efficiency, modern equipment, and at the same time, effective management ensures high efficiency of labor at the enterprises of the sector, and an increase in the volume of industrial production.

The republic, which for many years exported only cotton fiber, today has unlimited opportunities to take a leading position in the world textile market, not only as a supplier of cotton fiber, but also as an exporter of textile products, especially finished products. .

Taking the 6th place in terms of cotton production, Uzbekistan was in the 3rd place in terms of cotton exports. But in recent years, the export of cotton raw materials is decreasing, emphasis is being placed on the export of high value-added products.

As a strategic sector for the economy of Uzbekistan, light industry ensures a high level of employment, contributes to the economic and industrial potential and the international prestige of our country. The unique geopolitical location of Uzbekistan allows direct economic dialogue with many countries, mutually beneficial cooperation with European and Asian countries.

The light industry of Uzbekistan is one of the leading and rapidly developing sectors, and now a comprehensive measure is aimed at organizing the production of a wide range of high-quality textile and sewing and knitting products, deepening the localization of its production, as well as increasing the export potential of local manufacturers. - activities are being carried out. According to the Statistics Agency under the President of the Republic of Uzbekistan, in 2022 the sector's share in the total industrial volume of the country was close to 30%, its share in GDP was close to 4%, and in the volume of production of non-food goods - from 44 more than In recent years, the annual growth of the production volume has been about 18%, and the export has been 10%.

Today, the well-chosen strategy of the Association of Textile and Sewing-Knitting Industry Enterprises of Uzbekistan, which unites more than 1,400 manufacturers in the textile market of Uzbekistan, is the right strategy of the textile industry of our country. enabled companies to demonstrate positive growth dynamics. A significant part of the produced light industrial products, in particular, processing of 706 thousand tons of cotton fibers and 510 million tons of various types. sq. meters of fabrics, including:

Knitwear - 89 enterprises;

Ready-made textile products - 495 enterprises;

Sewing products - 354 enterprises;

Hosiery products - 54 enterprises;

Textile haberdashery - 20 enterprises.

In this, 156 textile companies were established with the participation of state investors such as South Korea, India, Singapore, Germany, Switzerland, Italy, Japan, and the USA.

The joint ventures also produce a wide range of products with a unique profile, in particular, medical goods, non-woven materials, and satisfy the need for cotton products, special work clothes, and other products. products - ensuring the development and introduction of new innovative products.

In the textile sector, the highest added value in the cotton production chain is observed in the sector of ready-made knitwear and garments.

Based on the importance of the textile sector in the country's economic development, a program of measures for the further development of the textile and sewing-knitting industry is being implemented in Uzbekistan in 2022-2024. According to the program, by 2025, it is planned to increase the production of yarn by 2.5 times, ready-made fabrics - 2.8 times, non-woven materials - 1.5 times, knitted fabrics - 2.7 times. It is planned to increase the production of sewing products by 3.2 times, knitting products by 2.1 times, and the production of silk raw materials by 2.1 times. In 2015, the volume of fabric production was 85.63 mln. sq. meter, by 2025 this figure will increase to 459.2 million. square meters and provides a 5.4 times increase in production volume.

The gradual increase in the level of processing of local raw materials, as well as the expansion of the production volume and types of high value-added products, became the most important direction of our internal reserves and capabilities.

Over the past 31 years, the sector has become one of the leaders in attracting foreign investment and exporting high value-added products. Today, light industry is represented by a wide range of exports, including all types of products, from yarn to ready-made garments and knitwear.

Our research shows that, as a result of increased domestic raw material processing, we can see exports of value-added finished products multiply several times between 2017 and 2022.(Table 2.2).

Table 2

The main types of textile products exported from Uzbekistan

(in thousands of US dollars)

Mahsulotlar	2017 y.	2018 y.	2019 y.	2020 y.	2021 y.	2022 y.
Namat va to‘qilmagan materiallar, arqon mahsulotlari	27 208,9	24 664,7	26 779,7	27 431,1	30 923,4	39 707,1
Tayyor trikotaj kiyimlar	203 714,6	251 362,6	269 764,3	323 400,6	459 243,2	577 832,2
Tayyor kiyim tikish	12 768,2	17 290,8	19 859,8	31 423,1	47 486,4	67 345,8
Gilamlar va boshqa to‘qimachilik pol qoplamalari	19 460,9	34 415,7	31 042,0	32 004,0	29 244,3	42 069,5
Boshqa tayyorlangan to‘qimachilik mahsulotlari	22 017,5	31 726,5	36 052,7	51 948,0	88 807,5	118 113,4
Boshqa o‘simlik to‘qimachilik tolalari	656,4	447,4	322,0	678,1	381,9	513,8
Boshqa tovarlar	5 389,9	5 082,1	6 227,6	6 453,6	7 992,1	13 982,6
Paxta ipi	497 298,5	631 312,2	726 645,1	926 119,4	940 704,6	1 613 424,2
Paxta matolari	46 356,3	53 795,0	65 703,4	69 171,9	96 817,2	131 647,0
Trikotaj mato	65 171,3	50 408,7	65 503,1	84 760,0	144 477,4	242 803,0
Ipak va ipak mahsulotlari	20 996,1	30 933,8	49 930,9	71 846,2	74 927,4	78 097,6
Jun va jun mahsulotlari	1 832,3	2 174,5	2 398,5	1 681,8	1 348,1	1 898,9

In particular, in 2017, 203.7 mln. If ready-made knitwear worth US dollars was exported, in 2022 this indicator will reach 577.8 million. reached US dollars. We can see that ready-made clothing has increased by almost 5 times during 2017-2022.

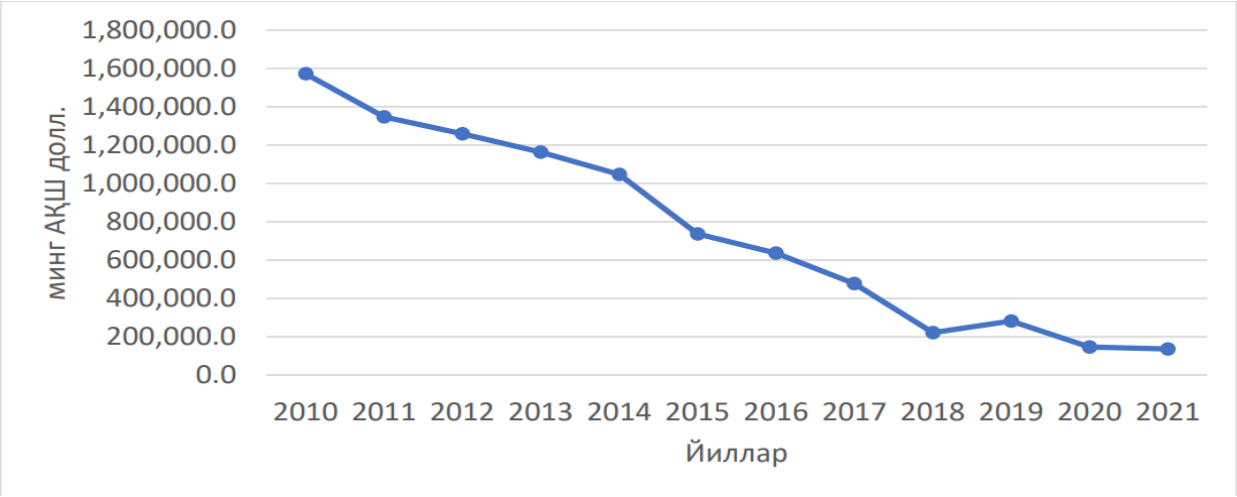
PF-53 of the President of the Republic of Uzbekistan dated January 21, 2022 "On measures to stimulate the production of deep processing and high added value finished products and their export at textile and sewing and knitting enterprises" The signing of Decree no. As a result, in the first two months of 2023, Uzbekistan exported nearly 8,000 tons of knitted goods worth 45.6 million US dollars to 15 foreign countries. The volume of export of knitted goods increased by 8.4 million US dollars compared to the corresponding period of last year.

To date, a total of 134 cotton-textile clusters are operating in the Republic. Modern methods of cotton picking are used in cotton-textile clusters, including cotton picking machines manufactured in the USA (John Deere), Germany (Case), China and other countries.

Over the past years, Uzbekistan has become the center of cotton resources and exported the main part of cotton raw materials. Today, the textile industry produces 3.0 million tons of cotton grown in the country. 100% processing of more than tons of cotton, in addition, it was able to create capacity to import cotton fiber from neighboring countries.

Our research shows that the main attention of textile enterprises in the production of new types of products is focused on increasing the share of finished products production and export (Figure 2.1).

1.6 billion in 2010. If US dollar worth of cotton fiber was exported, this indicator will decrease year by year and will reach 136.6 million tons in 2021. reduced to US dollars. That is, the main part of the cultivated cotton raw materials is produced and exported to high value-added clothing products, knitted products and other such finished products. At the moment, the scale of production of mixed kalava and gas products is being expanded at the enterprises.



1 - picture. Export indicators of cotton fiber in Uzbekistan (in years)

By the end of 2021, a total of 1.0 mln. more than tons of cotton fibers were processed, and the volume of production of industrial products was 31.9 trillion. 8 trillion soums (growth rate of 140.7%), including 19 consumer goods. amounted to soums (133 %). In particular, by volume: - yarn production - 747.0 thousand

tons (118.6 %), - fabrics - 510.0 million square meters (125.6 %), - knitted fabric - 175.0 thousand tons (146.3%), - socks - 293.1 mln. pairs (114.0 %), - ready-made knitted products - 175.0 mln. (115.9%) and tailoring 571.0 bln. soums (143.4%). 566.8 billion for 36 projects within the localization program. Soums worth of finished products and components were produced.

The volume of investments within the framework of the investment program is 232.9 mln. dollars, and the volume of foreign direct investments is 150.6 mln. amounted to US dollars. The share of yarn in the total volume of export was 55.4%, the share of finished products with added and high added value was 44.6%, the growth rate compared to 2020 was 141%. The main export of manufactured goods to Russia – 32.0% ($950.0 million), China – 22.0% ($630.0 million), Kyrgyzstan – 13.0% ($385.0 million), Turkey - 16.0 ($460.0 million). In addition, in 2020, light industrial products were exported to 16 EU member countries, and the main share of exports was cotton yarn - 49.1% (13.5 million US dollars), fabric 21.9% (6 million US dollars), knitted goods 16.7% (4.6 million US dollars), sewing products 11% (2 million 9 million US dollars), hosiery products 1.3%. (0.3 million USD). Poland - 56% (15.4 million dollars), Italy - 19.1% (5.3 million dollars), Germany - 7.3% (2, 0 million dollars) took place.

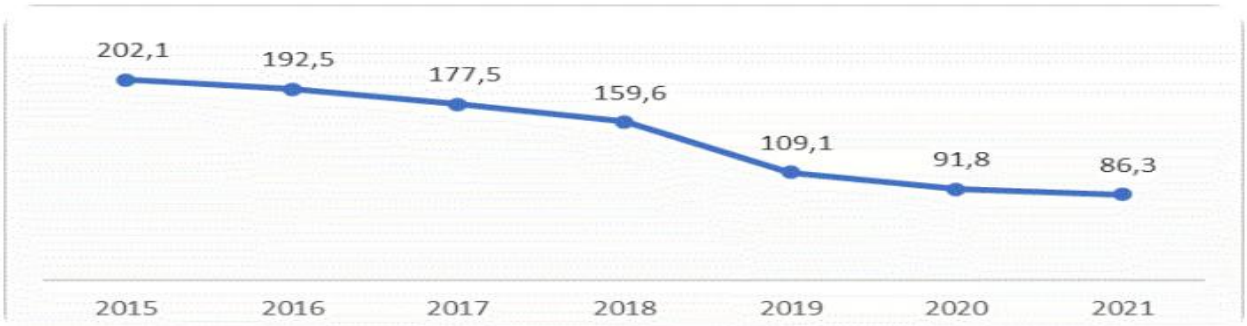
In the early years of independence, a number of laws were adopted on the development of cocooning, one of the important branches of agriculture of our republic, the elimination of problems arising in the process of growing cocoon raw materials, initial processing and sale, reforming and developing the sector based on the requirements of the market economy. In particular, the President of the Republic of Uzbekistan Sh.M. Mirziyoyev's decree No. PF-72 of May 3, 2024 "On additional measures to accelerate the introduction of market mechanisms in the field of cocoon cultivation and sericulture" is the priority way of bringing the sector of cocoon cultivation and sericulture to a new stage. complaints have been determined.

The core of the new policy is the creation of sericulture clusters that cover the entire process of production of silkworms from seed production and cocoon rearing to processing and export.

Currently, products made from cocoons in more than 60 countries account for 0.2% of the world's textiles, but only 20 countries grow cocoons. The first place in the world in terms of the amount of cocoon production is China (54.1% of the world production in 2021), the second place is India (40.4%), the third place is Uzbekistan (2.4%), Korea is in fourth place. Although Uzbekistan ranks first in the world in terms of cocoon production per capita, its share in the world market is only 2.5 percent. One of the main tasks is not only to increase the volume of cocoons produced in our republic, but also to produce finished products that meet world standards.

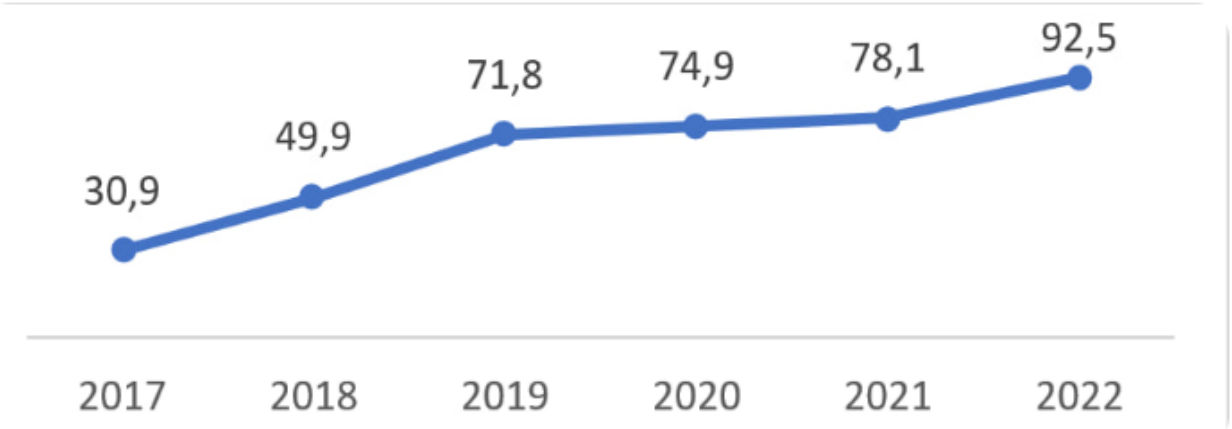
In Uzbekistan, 55 kilograms of cocoons are obtained from 1 box of silkworm seeds, while in China and India, this figure reaches 80-85 kilograms. It should be noted that the types of cocoons differ in terms of raw material calibers and lengths. In Uzbekistan, cocoon uniformity in caliber is on average 60% compared to 90-95% in China, India, Vietnam and Brazil.

In recent years, the volume of silk production in the world has decreased significantly (Figure 2).



2 – picture. World production of silk, in metric tons

Currently, the production of cocoons in Uzbekistan is increasing since 2018. However, review.uzinformationaccording to this, the percentage of processing of raw silk in our country does not exceed 25 percent, the rest is exported. The volume of silk exports from Uzbekistan, including silk fiber and gauze, is increasing: from 2017 to 2022, it reached 92.5 million US dollars from 30.9 million dollars. But its share in the export of Uzbekistan is not very large (less than 0.5 percent). For comparison: in 2022, the export of all textile products from Uzbekistan amounted to 3.2 billion US dollars, including 1.4 billion US dollars of kalava yarn (Figure 2.3).



3 – picture. Export of silk, including silk fiber and gauze, from the Republic of Uzbekistan, in million US dollars

Until then, more than 90 percent of cocoons were exported, as cocoons were a source of foreign exchange for our country. As a result of the measures taken, about 20% of the cocoons are being processed in our country and sent for export in order to increase the profit through the added value chain in cocooning.

Silk export from Uzbekistan is dominated by cocoon waste and raw materials (68.2%). The share of silk gauze and fiber is still not high (31.8%). But in recent years, gas exports have grown significantly: from $210,000 in 2017 to $23.8 million in 2022 (113.5-fold increase).

Effective development of modern industries is affected by such factors as quantity and quality, extensive and intensive, that is, expanding and intensifying. More precisely, if the production process expands due to the additional involvement of resources, the share of the extensive factor will be high expanded reproduction, if innovative, that is, high-capacity production methods or tools are available. if applied, expanded reproduction with a high share of intensive factors will take place.

There are different approaches to the economic content of production efficiency in the industry. During the research, it was found that the efficiency category is interpreted from different perspectives. Increasing the efficiency of the use of economic resources in industrial enterprises is ensured by the intensity of the production process and represents its economic result. Economic efficiency in industrial enterprises is achieved through the effective use of material, financial, and labor resources and is defined on the basis of saving working time, speeding up construction work, optimizing production costs, increasing working time efficiency, developing production, accelerating the flow of funds, improving the quality of work.

Summary.

The necessary legal framework and favorable conditions for the further development of the textile and sewing-knitting industry have been formed in our republic, and great attention has been paid to attracting additional funds and diversifying the production process.

Effective development of modern industries is affected by such factors as quantity and quality, extensive and intensive, that is, expanding and intensifying. More precisely, if the production process expands due to the additional involvement of resources, the share of the extensive factor will be high expanded reproduction, if innovative, that is, high-capacity production methods or tools are available. if applied, expanded reproduction with a high share of intensive factors will take place.

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ENSURING THE PERFORMANCE INDICATORS AND ECONOMIC SECURITY OF THE MINING INDUSTRY

Khotamov Javahir Abdusharopovich[1]

ABSTRACT

MIn recent years, economic development processes of mining and geological industry, production indicators of mining and geological industry enterprises have been analyzed and development stages have been researched. The issues of ensuring economic security in the enterprises of the mining and geological industry have been scientifically addressed. Recommendations have been developed based on the results of research on ensuring economic security in enterprises of the mining industry.

Keywords: *Industrial Enterprises,Mining Geology,Economic Security, Risks, Ensuring Economic Security, Production Indicators.*

OBESPEChENIE EFFEKTIVNYX POKAZATELEY I EKONOMIChESKOY BEZOPASNOSTI GORNOY PROMYSHLENNOSTI

Abstract.*V state analiziruyutsya protsessy ekonomicheskogo razvitiya gorno-geologicheskoy otrasli, proizvodstvennye pokaseteli predpriyatiy gorno-geologicheskoy otrasli, issleduyutsya etapy razvitiya. Nauchno reshen vopros obespecheniya ekonomicheskoy bezopasnosti na predpriyatiyax gorno-geologicheskoy otrasli. The results of research and development are recommendations for economic safety and mining enterprises.*

Keywords:*promyshlennye predpriyatiya, mountain geology, economic safety, risk, obespechenie economic safety, production indicators.*

ENSURING EFFECTIVE PERFORMANCE AND ECONOMIC SECURITY OF THE MINING INDUSTRY

Abstract:*The article analyzes the processes of economic development of the mining and geological industry, the production indicators of enterprises in the mining and geological industry, and examines the stages of development. The issue of ensuring economic security at enterprises in the mining and geological industry has been scientifically resolved. Based on the research results, recommendations have been developed to ensure economic security at mining enterprises.*

Keywords:*industrial enterprises, mining geology, economic security, risks, ensuring economic security, production indicators.*

Introduction

The activity of mining enterprises is of great importance for the country's economy. It is important to develop the activities of mining-geology industrial enterprises as one of the major production networks of industrial sectors and to ensure the economic security of mining-geology industrial enterprises.

If we pay attention to the views of the President of the Republic of Uzbekistan Sh. Mirziyov on the sustainable development of New Uzbekistan, "We will increase the gross domestic product by 2.5 times by

[1]An independent researcher at TDIU

2030, and increase the share of industry in the national economy to 40%. "We will implement specific target programs, taking into account that, in the next years, the main attention will be paid to the implementation of a number of tasks for the introduction of structural changes in the economy, modernization and diversification of the economy" [1].

It is important to achieve an increase in the volume of gross domestic product based on increasing the share of industry in the sustainable development of economic sectors of our country. Therefore, it is of urgent importance to create all opportunities for the development of industrial sectors, to introduce new mechanisms for attracting investments to industrial sectors, and to take measures to ensure the economic security of industrial sectors.

The third priority of the Decree of the President of the Republic of Uzbekistan "On the Development Strategy of New Uzbekistan for 2022-2026" "Rapid development of the national economy and ensuring high growth rates" 23rd goal of the direction "Drapidly increasing the volume of geological exploration, wide involvement of private investors and advanced foreign companies in the field" includes wide involvement of local and foreign investors in geological exploration and mining in prospective areas based on transparent mechanisms to do The issues of expanding the base of mineral raw materials necessary for the economy and increasing the volume of production by attracting investors based on transparent mechanisms, analyzing the existing deposits, geological-research areas and structures of hydrocarbon raw materials [2] were determined.

Literature review

Kazakh scientist AATeploukhov emphasized in his studies the importance of developing the organizational and economic concept of managing the security system based on the fact that ensuring the economic and social safety of industrial enterprises is directly dependent on the human factor. AATeploukhov directly justified in his researches the need to conduct monitoring and develop an algorithm for ensuring economic security in coal mining facilities as a con-geological enterprise [3].

Industrial enterprisesAccording to OAGrunin and SOGrunin, who theoretically conducted research on economic security, economic security is based on the most effective use of corporate resources of an economic entity against existing risks, various threats and other unforeseen is a state of eliminating, weakening and protecting against situations, and the enterprise achieves its business goals in the face of competition and various threats. In this definition, it is emphasized that the criterion of economic security is the achievement of business goals and the threat of competition as an external factor, and the condition for achieving the business goal is the effective use of direct resources.[4].

Analysis and results

The development of mining enterprises is one of the most important branches of the country's industry. Through the priority development of mining-geological enterprises, while ensuring the safety of the raw material base of existing large and small enterprises in our republic, it is an important foundation for the development of opportunities for export to foreign markets, not only by processing mining-geological resources, but also for domestic needs.

Modernization of the mining and geological enterprises of our country and expansion of diversification in the industry, effective use of the economic reforms implemented in the mining and geological industry is one of the urgent tasks of today. In this regard, the main goal of our scientific research is to study economic risks

and ensure economic security in the sustainable development of mining and geological enterprises, to evaluate the results of reforms implemented in the sector and to find solutions to problems related to economic security.

As a result of the reforms carried out by the head of our state Sh. Mirziyoev, the process of fundamental changes is taking place in all branches and fields. In this respect, it is operating in our countrymining-geological enterprises were selected as research objects for the main purpose of studying the activity of mineral resource extraction and processing industry enterprises and researching issues with ensuring economic security.

Priority development of mining-geological enterprises of our republic, analysis of the state of development of mining-geological enterprises of the industrial network, assessment of the economic status of mining-geological enterprises, analysis of production indicators of mining-geological enterprises, economic security of mining-geological enterprises analysis of confounding factors is important.

According to the report of the Ministry of Mining and Geology, a total of 22, including 1 gold, 1 copper, 2 hydrocarbons, 5 underground water and 13 mineral deposits, were discovered in the six months of 2023. It was noted that the geological research was completed and the identified industrial reserves were approved by the State Commission. It was noted that a total of 61 million dollars (154 percent compared to the plan) of foreign direct investments were absorbed within the framework of 15 geological projects in the Investment Program in January-June 2023 [5].

The Ministry of Mining and Geology of the Republic of Uzbekistan, which manages the mining and geological sectors operating in the industrial sectors of the economy, is the main link of the mineral resource extraction and processing industry.

If we approach the activity of con-geology from a historical point of view, from the first days of independence, special attention was paid to the activity of geology, like all branches and fields. In this regard, the State Geological Committee of Uzbekistan (Davgeolqom) was established on February 12, 1991 by the President of the Republic of Uzbekistan according to the decision No. PQ-142, and later, starting from 2018,No. 315 of the Cabinet of Ministers of the Republic of Uzbekistan dated 27.04.2018In accordance with the decision, it changed its organizational management structure based on the "Regulation on the State Committee of Geology and Mineral Resources of the Republic of Uzbekistan".

As a continuation of the reforms implemented in the sector regarding the development of mining and geological industrial enterprises, the President of the Republic of Uzbekistan dated 27.07.2023 No. PF-116 "Effective organization of state management in the field of mining and geology within the framework of administrative reforms" as a result of the adoption of the decree "On events".The Ministry of Mining and Geology of the Republic of Uzbekistan was reorganized [6].

Table 1 :Dynamics of mining industry and open-pit mines of the Republic of Uzbekistan, (billion soums)[8]

Areas	2019 year	2020 year	2021 year	2022 year	2023 year	The difference between 2023 and 2019 (+;-)
Republic of Uzbekistan	43438.9	33106.9	43872.2	52093.5	55442	12003.1
Republic of Karakalpakstan	503.6	154	161.7	199.4	401.7	-101.9

Andijan region	206.6	115.3	177.6	235.6	769.9	563.3
Bukhara region	1266.7	238.9	535.5	330.2	439.1	-827.6
Jizzakh region	119.4	182.5	242.4	216.6	144.7	25.3
Kashkadarya region	1338.4	1725.5	2079.4	1715.2	1593.3	254.9
Navoi region	5069.7	6152.1	9520.2	11742	12041	6971.3
Namangan region	53.9	46.8	79.6	55.6	95.4	41.5
Samarkand region	138.6	231.2	241.5	322.7	390.2	251.6
Surkhandarya region	240.3	212.5	245.9	222	246.2	5.9
Syrdarya region	27.7	82.4	69.7	89.4	92.2	64.5
Tashkent region	2186.2	2583.9	3298.5	4122.4	4712.3	2526.1
Fergana region	116.5	133.9	132.8	101.8	216	99.5
Khorezm region	2.4	1.0	5.8	4.0	5.7	3.3
Tashkent city	11229	13077.8	14583.6	14990.7	16003	4774

The structure of the Ministry of Mining and Geology of the Republic of Uzbekistan consists of 16 large industrial enterprises, surveying services, a scientific research and training institute, the University of Geological Sciences and other institutions that train personnel.

Dynamics of the volume of mining industry and open mines of the Republic of UzbekistanGiven in Table 1, if we take an analytical approach, in 2019, 43438.9 bln. 55,442 billion soums by 2023. 12,003.1 billion soums of raw material resources were mined and compared to 2019. an increase of soum has been achieved. By 2023, compared to 2019, there has been a decrease in the volume of mining industry and open-pit mines in most regions, especially in the Republic of Karakalpakstan and Bukhara regions.

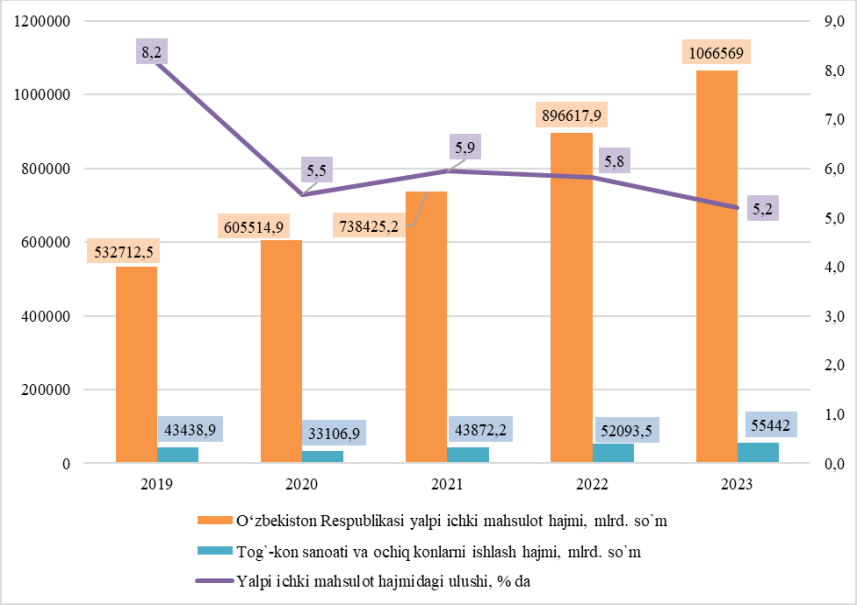

Figure 1. The share of mining and open-pit mines in the gross domestic product of the Republic of Uzbekistan[8]

If we pay attention to the analyzes of the mining industry and open-pit mines in the volume of the country's gross domestic product, in 2023 the volume of the gross domestic product will be 1066569 billion soums, while mining the share of the volume of operation of industry and open mines was 5.2 percent, i.e. 55442 billion soms. In 2023, the share of mining industry and open-pit mining volume decreased by 3.0% compared to 2019.

The volume of mining and open-pit mines also has a significant role in the volume of GDP, however, the indicators for 2019-2024 indicate that the mining industry and open-pit mines the share of output has been decreasing in the last five years (Fig. 1).

Mining and open pit operations- includes extraction of natural minerals in the form of solid rocks (coal, ore), liquid (oil) or gaseous (natural gas). The volume of products produced by the enterprises of the mining industry and open-pit mining industry in January-December 2023 is 55.4 trillion. soums or its share in the volume of total produced industrial products corresponded to 8.4% [7].

Our country is one of the countries with favorable natural and geographical conditions in Central Asia. Our republic has a large amount of underground resources with natural resources. Also, our country has natural resources such as natural gas, lignite and hard coal, gold, copper, tungsten, bismuth and open oil fields.

Conclusions and suggestions

In conclusion, it should be said that priority development of mining enterprises is important in ensuring economic stability of the country. Therefore, today, in the sustainable development of mining enterprises, it is important to study the activities of these enterprises, assess the level of protection against economic risks in the industry, and constantly analyze their economic indicators.

The economic stability of mining enterprises directly depends on the amount of resources used, the volume of products produced and the amount of profit. On the basis of ensuring the economic security of mining enterprises, it will be the foundation for guaranteeing the supply of natural resources to the country's population and increasing the country's reputation in the foreign market.

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RESEARCH OF PROCESSES USING DIGITAL TECHNOLOGIES IN PRODUCTION ACTIVITIES (IN THE CASE OF AGRICULTURAL SECTOR ENTERPRISES)

Hamdam Homidov Hasan o‘g‘li[1]

ABSTRACT

This article will talk about the system used to digitize agricultural activities. This program's main function is covered and in what sequence the process takes place. The program was developed as a web application, the Backend of which was based on the Python programming language. In this case, an algorithm and program for achieving the final result are developed based on modular programming methods.

Key words:*Modular programming, OpenCV, NDVI, SQLAlchemy, Highcharts, SVG (VML), GPS, SOM, CNN, Resall@k, Console Python.*

1. Introduction.

Modular programming is a software design technique based on dividing the functionality of a program into independent, interchangeable methods/modules. In this case, each of the modules contains all the actions needed to perform only a part of the system functions. Modularity is based on building blocks, where each block builds on other blocks. Each block can be reliably tested, and multiple blocks can be combined to create a complete program. Therefore, thinking about the concept of modularity is like creating the entire architecture of an application.

A module is described as a part of a program that contains one or more subprograms. By combining one or more modules, we can have a common program. Modules are implemented in the program through interfaces. The introduction of modularity allows developers to reuse pre-written code in new applications. Modules are compiled and combined with compilers, where each module performs a business or routine operation within the program.

According to the presidential decree, the Ministry of Agriculture of Uzbekistan together with the Ministry of Information Technologies and Communications of Uzbekistan will launch an electronic platform within two months to monitor the cultivation of agricultural crops, including cereals, and their development using drones. The Uzdavyerloyiha, a State Research and Design Institute of lands, will monitor the vegetative state of agricultural lands and crops using unmanned aerial vehicles.

The Jizzakh Organic cluster is among the first in agriculture to start using drones. Unmanned aerial vehicles from China FOXTECH Great Shark 330VTOL are used to create field maps, monitor crop growth, detect and diagnose diseases, as well as control pests.

In 2021, the first experimental work carried out by the specialist was successfully carried out on 10 hectares of grain fields, 4 hectares of vineyards and 5 hectares of arable land in the Kibray district of

[1] Doctoral student of the institute of personnel training and statistical research under the state statistics committee of the Republic of Uzbekistan

Tashkent region. A self-propelled drone is used in the surveillance work of the designated areas in mere 6 minutes.

As a result, measurements of soil moisture, and yield height showed error of 5-8% with more than 8-fold decrease of measurement time.

2. Literature review

Today, on a global scale, the use of digital technologies in almost all areas of human activity is rapidly developing. Agriculture is no exception. Therefore, in our country, in recent years, special importance has been attached to the development of the digital economy in this network. The decrees of the president of the Republic of Uzbekistan in this direction, the priorities of the network were expressed in the decision of the Cabinet of Ministers of December 17, 2020 “on measures to develop the system of digitalization in the agro-industrial complex and Agriculture of the Republic of Uzbekistan”No. 794.

According to the analysis, the agricultural producer has to adopt more than 40 different solutions during the season. Most of it is considered an object of digitization and directly affects production efficiency. The census shows that 33% of the crop is lost in planting, cultivation, storage and transportation. Under such conditions, “smart” or “smart agriculture” technologies, which ensure the rational use of existing land, water, material and technical and labor resources, are of paramount importance.

The technical and technological base of the industry, on the other hand, largely determines the general development of the agro-industrial complex. This is manifested in the technological improvement of livestock and plant production, the increase of land productivity and the replacement of manual labor with mechanized activities. The lack of techniques limits farmers ' capabilities and increases labor costs at the cost of products. The effective use of existing technical means reduces its coverage period and speeds up the process of reproduction, while applying innovative technologies.

Technological transformation is digitization of all production processes and production automation, and management change is the introduction of new management methods. Practice shows that companies that use digital technologies and new methods of production management make an average of 26% more profit than their competitors. On the contrary, those who use digital technologies without changing their management system will have 11% less profit, and companies that only switch to new management methods will increase their profit by only 9% [1]. Therefore, during the transition to digitalization of agricultural activities, it is necessary not only to introduce new technologies to production, but also to change the management system [2].

In the digital economy, fundamental changes are taking place in the paradigm of agricultural production management, because as a result of the robotization of production and the automation of production management systems, strategic decisions are made by humans, and tactical decisions are made by machines based on the displayed information [3]. As a result, the communication time is reduced, the speed of business processes increases, the accuracy and efficiency of the decision-making process increases [4].

Despite the fact that digitization of agricultural activity has not yet reached a significant scale, but is gradually spreading to individual production operations, preparations for it should begin now [5]. The reason for this is that the consequences of digitalization are changing not only production methods, but also goals, tasks and management methods [6].

Using digital technology-based surveillance systems to monitor real-time video footage of each crop field detects any movement on the ground and sends an immediate alert.It should be noted that improving the monitoring of supply chains of agricultural products, bringing new and safe crops to the market and ensuring competition are among the urgent problems of today. A well-managed tracking system can help reduce inventory shrinkage by providing greater control throughout supply chains. Many tracking systems rely on advanced sensors to gain more information about the delivery status of each product [7]. For example, sensors of IoT (Internet of Things) technologies play an important role in solving the above problems. The effectiveness of such technologies in the delivery of agricultural products is shown to be 16 times more profitable than before.

3. Materials and methods

The developed system also consists of several blocks that can operate independently. The results obtained from each block's tasks are provided as input data for the next blocks. Each block can also function as an independent program created based on Python. Open-source software was used to write these programs. The functions of each block are listed below, block numbers are shown in Figure 1. [8]

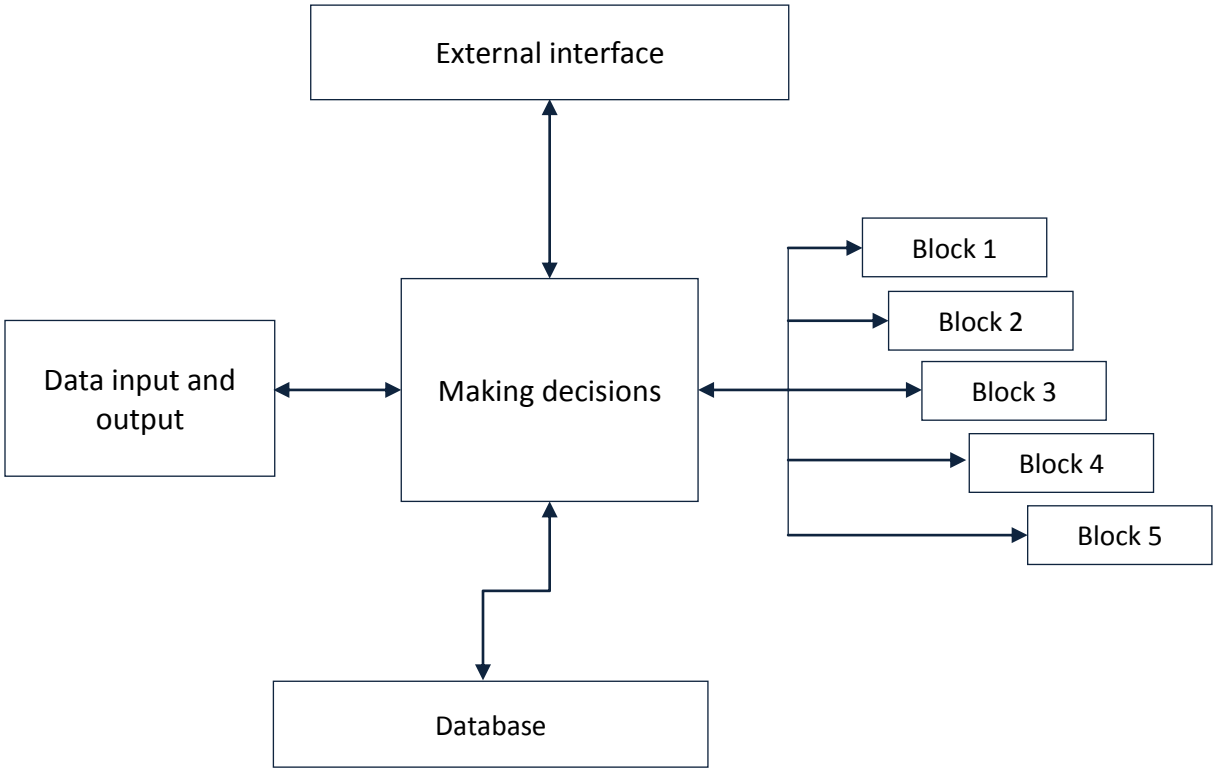

Figure 1. A model of the developed system[1]

[1] Author's developments based on research

Block 1. A program for creating a sequence of frames based on video material and extracting files of individual tempos.

During the operation of the system, all operations (recognition operation, classification operation) are performed on photo frames. Therefore, first of all, the resulting video must be formed as a set of files consisting of a sequence of steps. The program used is developed based on the OpenCV library written in Python.

First, the OpenCV Python library is installed. Because the frame rate or frame duration varies from video to video, you must enter this parameter to specify the number of frames to be extracted and stored per second. In the developed block, the value of this parameter is 10, which allows you to save only 10 frames of video per second, although the actual frame rate of the video is 24 frames per second. If the video is 30 minutes long, a total of 18,000 frames will be saved. For our system, this is a sufficient value to ensure sufficient reliability of the recognition process in subsequent blocks. As a result of the program, a folder is created in advance in which the footage is saved along with a time stamp in the file name.

Block 2. Program for determining the level of mineralization on the surface of dry soil.

In the developed system, an open program code was used based on the method of creating soil maps during the long-term analysis of the dry soil surface. This is an alternative method of using vegetation indices. Determination of the dry soil surface was carried out using the soil line spectral analysis technology. Computer code based on deep machine learning (neural networks) was used to automatically recognize minerals in each ground image. The data set "Land Cover Raster Data (2017)" was used as a data set for training the program. This dataset is a 6-inch resolution Class 8 land cover dataset from the 2017 Light Detection and Ranging (LiDAR) dataset, developed as part of the updated Urban Land Assessment and thus represents a "top-down" mapping perspective, eight land cover classes are mapped: (1) trees, (2) grass/shrub, (3) dry land, (4) water, (5) buildings, (6) roads, (7) other waterproofing materials and (8) railways.

Half of the dataset was used as the training set. The other half was used as a test piece. Each rate pixel is set to "1" when detecting soil minerals. A value of "0" is set in the absence of a mineral. The machine's accuracy in predicting the presence of minerals was 75%. Degradation detection is based on average long-term red and UV spectral responses. As an integral characteristic of average long-term values, the coefficient C_{mean} was calculated, which is the distance of the point with average long-term values of red and ultraviolet from the origin of the red and ultraviolet spectral plane. High average long-term values of spectral brightness served as an indicator of the spread of soil degradation. The soil test values of this coefficient made it possible to estimate the amount of organic matter in the plow horizon (R2 = 0.841) and the thickness of the humus horizon (R2 = 0.8599). A total of 30 soil plots on 100 hectares were analyzed in eight agricultural fields.

Block 3. The program for determining the type and disease of plants.

In the development of this block, a search-based recognition method based on the classification of nearest neighbor plants was used in the deep embedding space of machine learning to automatically identify plant types and positions based on images. This method is based on Resall@k, a model trained with surrogate loss in image acquisition. This method has been proven to be more efficient than modern image classification approaches based on convolutional neural networks (CNN) and vision transformers (ViT). The

PlantCLEF 2017, ExpertLifeCLEF 2018, and iNaturalist 2018 datasets, the largest publicly available plant recognition and status datasets, were used to train and evaluate this block. is a set.

The PlantCLEF 2017 dataset contains more than 1.15 million images collected by querying the Encyclopedia of Life via the Bing and Google search engines. The dataset covers 10,000 plant species, mainly from North America and Europe, making it the largest dataset to identify plant species by number of classes. The test set contains 25,170 images (17,868 observations).

The ExpertLifeCLEF 2018 training dataset differs from the PlantCLEF 2017 dataset only in the test set. The test set contains 6,892 images (2,072 observations) covering species mainly from Western Europe and North America. In addition, some endangered species, as well as cultural and ornamental plant species have been added.

iNaturalist is a public science platform that allows citizens and experts to upload, annotate, and categorize worldviews. iNaturalist has extensive geographic and taxonomic coverage of over 343,000 species with approximately 97 million observations. iNaturalist 2018 - The iNaturalist Challenge 2018 dataset contains 2,917 plant species, 118,800 training and 8,751 validation images. In addition, full taxonomic information is provided for all images.

Block 4. Program for determination of soil moisture level.

Identifying different pixels with similar points in the images collected in the database is a reliable way to get an accurate picture of the soil moisture status in a given area. In this context, an artificial intelligence-based self-organizing map (SOM) method is used to classify the same pixels using parameters extracted from images. As a cluster indicator, the central pixels of the clusters are selected, one from each cluster. Then neural networks consisting of three layers, input, hidden, and output, are trained using a time series of extracted satellite images of the central pixels of the clusters. The proposed methodology and obtained results can be used to provide a cost-effective way of determining soil moisture status in the region by reducing monitoring costs.

To predict soil moisture based on this algorithm, it is necessary to combine relevant information about soil moisture conditions in different pixels of the area and define sample pixels. Therefore, SOM, as an ANN-based clustering approach, is a general machine-learning method for image recognition that can establish relationships between groups of unlabeled data without considering natural phenomena. One of the simple characteristics of SOM in the developed system is that it can divide images into different regions based on the same features. The operation of this block consists of two stages. In step 1, a two-step SOM was used to classify pixels into close color classes. Usually, such two-stage SOM clustering is proposed to understand homogeneous regions and estimate the number of clusters considering the topology of the plane. The Euclidean distance criterion is then used to determine the dominant (central) pixel of each cluster. The dominant pixel was determined to obtain the best sample representing the entire cluster structure. In this way, land areas are divided into clusters, and moisture level is determined according to the entered criteria.

Block 5. A program for determining the size and location of land area.

This block works based on the data of the above blocks and the GPS data of the drone movement. The main task of this block is to receive the data of the marked areas, add them, determine their location, and create a grid map.

A grid map, also known as a raster map, is usually drawn based on image data. If the grid is treated as a matrix and the value of each point in the matrix represents the gray value of the corresponding image element, the image can be sampled and the corresponding digital matrix can be used to abstract the geographic information. [19] Unlike the abstract representations of a metric map, topological map, and semantic map, the accuracy of a grid map for depicting an actual path can be controlled by the size of the grid cell.

4. Results

System architecture: To determine the relationship between the modules of the system developed based on modular programming, to ensure the exchange of information between the modules, and to solve the problems of integration of the system blocks, the system was divided into functional levels and interconnecting interfaces were developed for each level. [9] The generalized model of the developed web application-based system is presented in Figure 2.

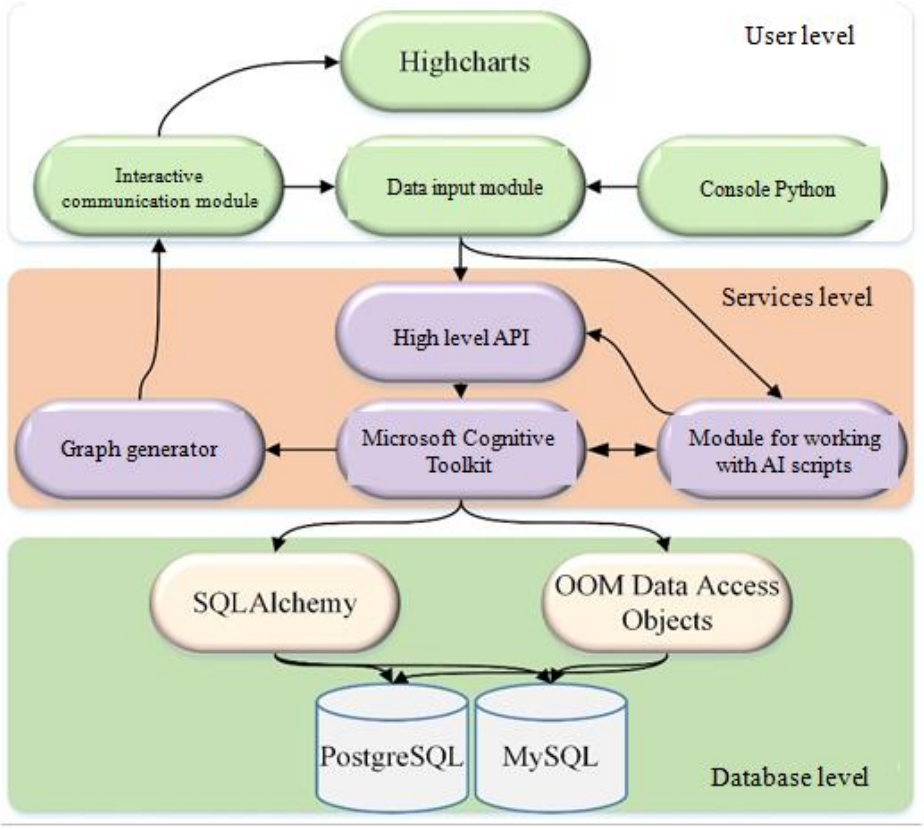

Figure 2. Developed system architecture[1]

[1] Author's developments based on research

The first level of the system is the user interface, which consists of data entry, an interactive user communication module, graphics rendering, and a Python console. Because the presentation of graphs is the main module of the system for providing information to the user, this module Highcharts library was built. Highcharts is one of the richest and most popular JavaScript libraries for creating charts and graphs with support for SVG (VML) services in HTML5. [11]

The second layer of the system is the service layer, which consists of artificial intelligence modules and related elements. The "Microsoft Cognitive Toolkit" software solution was used as an artificial intelligence module. The Microsoft Cognitive Toolkit is an open-source module based on deep learning that can be integrated into a web application through a high-level API to build neural networks. It delivers knowledge to the web application through API optimizers. [12]

The third level of the system is the database level, and we conditionally include the functions of working with databases at this level. The SQLAlchemy module was mainly used in this step, but other alternative tools can be used. SQLAlchemy is a collection of Python SQL tools and object-relational mapping tools that allow you to take advantage of the full power and flexibility of SQL. [13]

First, the program of block 1 will work on the file, and as a result, a file consisting of a collection of many images will be formed. After that, the loop starts, and the actions are performed on each image in the file. Initially, NDVI is based on speed. [14]

NDVI (Normalized Difference Vegetation Index) - Normalized relative vegetation index - a simple quantitative indicator of the amount of photosynthetically active biomass (usually called the vegetation index). One of the most common and widely used indices used in the quantitative assessment of vegetation cover. [15]

It is calculated according to the following formula:

$$NDVI = \frac{NIR - RED}{NIR + RED} \#(1)$$

NIR - the area reflected in the near-infrared spectrum;

RED - the area reflected in the red spectrum.

An NDVI value greater than 0.2 means that there is a crop in the area. In this case, the area is marked as cropland E or dryland Q.

5. Discussion

If there are no plants on the ground, this image is transferred to the 2nd block program. As a result of the block, the area is marked as mineralized land M or not M_ and binarized to determine moisture. After the binarization process, the 4th block program is started and the moisture level of the soil in the image is determined. An image with a moisture content above 30 percent is marked as irrigated land SY, otherwise, it is given a SY_ marker. [16]

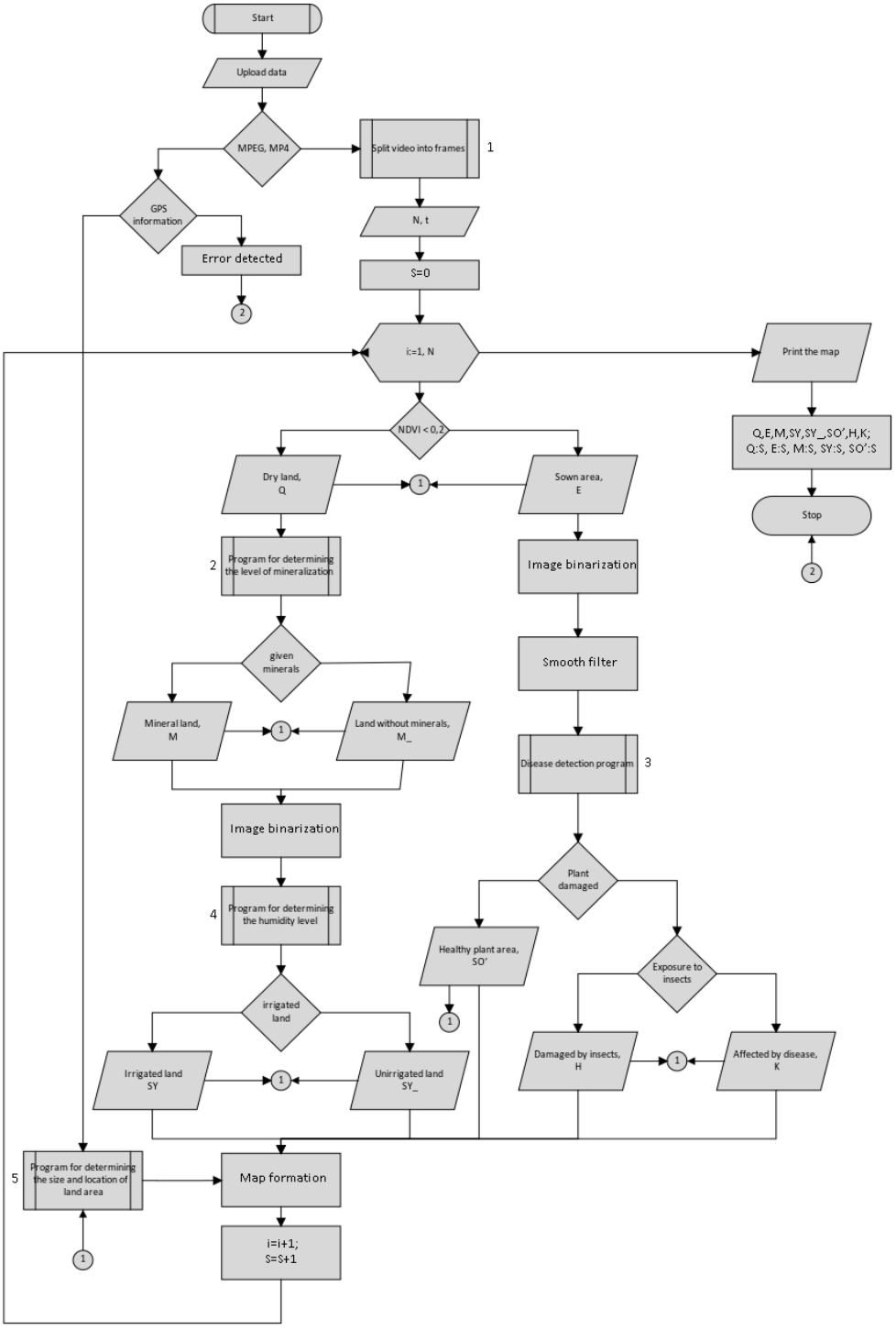

Figure 3. A generalized algorithm of system operation

On the other hand, binarization and filtering operations are carried out on the images where areas with vegetation are detected. They increase the accuracy of identifying the type of plant in the image. After that,

the 3rd block program will be launched. The quality of the result of this program determines the type of plant and determines whether it is infected or not. In addition, it is determined whether the illness was caused by the impact of insects or another disease. According to the results of the program, healthy plants are marked as SO', H affected by insects, and K affected by disease. [17]

All marked images are transferred to block 5 and collected. In this block, the map is formed and saved as a file. As the final result of the system, the total area of all the marked areas and the percentage indicators based on their ratio to the total land is presented in the form of a diagram.

An additional feature of this system is the provision of a GPS map, in which information about each area is presented with markers, and it is possible to mention, for example, the identification of the types of planted and grown plants. They can be provided upon further request. [18]

6. Conclusions

In conclusion, it should be said that the created platform provides accurate information for remote monitoring of land areas for farms operating in the Tashkent region, and for making management decisions through drone videos. It also allows for remote monitoring of all processes of growing agricultural products planted on land, as well as the formation of the necessary database for farm managers and early forecasting of productivity indicators.

Implementation of the proposed digital platform model will significantly accelerate the process of digital transformation of agricultural production, which will ultimately lead to increased competition among small and medium-sized agricultural producers in domestic and international markets.

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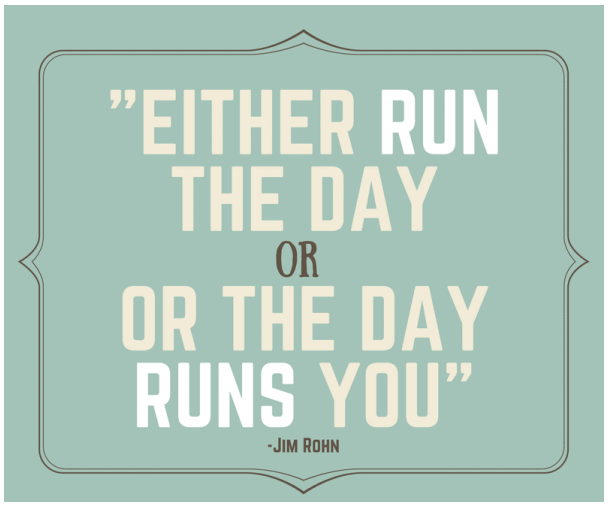

ANALYSIS OF THE USE OF IRRIGATED LAND IN SURKHANDARYA REGION AND WAYS OF IMPROVEMENT

Sharifi Abdul Fatah[1]

ABSTRACT

In this article, the use of irrigated land in Surkhandarya region is studied and statistically analyzed. Agricultural crop area (farming) and agricultural products (farming) were statistically analyzed in the region. Also, based on the analysis of the factors affecting the effective use of irrigated land in agriculture, scientific proposals for the effective use of irrigated land have been developed.

Keywords: *Agriculture, Land, Irrigated Land, Farming, Agricultural Products, Statistical Analysis.*

Introduction

In today's uncertainty, geopolitical processes and limited resources, the issue of providing food to the population remains one of the urgent problems. More precisely, the demand for natural foods grown in agriculture is increasing. Because, in the current conditions of development and as a result of the increase in demand, the demand for purely ecological medical products is increasing.

Specifically, according to a report by the Worldtrade Global Business Center, the global food market is projected to grow by 6.21% (2023-2027), resulting in a market size of USD 12.00 trillion in 2027. can form [10].

Of course, this is related to the effective organization of the processes of growing natural food products grown in agriculture, in particular, improving the use of irrigated land in agriculture, increasing its efficiency.

After all, according to the calculations of the World Bank and the United Nations Development Program (UNDP), the developing countries, which can expand to an additional 110 million hectares of irrigated land with improved environmental conditions, are expected to produce enough grain for 1,500-2,000 million people, according to the yield obtained from irrigated land. [11]. This shows the relevance of this research topic.

Literature Review

Agriculture is an important sector of the economy, in which raw materials are produced for industries that prepare food products and consumer goods for the population, which are the most necessary for human life. Today, the global land fund is 13.4 billion hectares, of which only 1.5 billion are used. hectare, i.e. 11% is economically favorable for agricultural production. Their quantity and quality are decreasing year by year under the influence of natural and anthropogenic factors and processes. Therefore, to solve the global food problem and increase the efficiency of limited land resources for agricultural use in the future, it is necessary to use not extensive, but intensive factors, as well as to invest in the intensive use of agricultural land by landowners and tenants, to maintain and increase the productivity of land, and in general to further improve

[1] Doctoral student of Termiz State University

the functions of land as a resource. It is also directly related to the mechanisms of forming a system that creates opportunities for strengthening and constantly regulating it [1].

From an economic point of view, for many years, land resources have traditionally been considered as a set of labor objects delivered by nature without human assistance [2]. For this reason, the use of certain elements of natural conditions, for example, water resources, mineral resources, plants, has had a direct or indirect effect on the quality of land and soil fertility at various stages of the development of economic relations [3].

According to E.A. Zakharova, emphasizing that in the conditions of market economy, agriculture occupies a place among the branches of strategic importance in the country's economy, this field evaluates the influence of natural factors, the state of land resources and their direct impact on the production of products [4].

N.G. Ovchinnikova stated that unreasonable use of land resources in agriculture has a negative impact on the volume of production of agricultural products, as well as unreasonably increases the costs of economic entities for the production of agricultural products [5].

The scientific-conceptual and practical aspects of the effective use of land resources in agriculture are both economic and scientific concepts in the agrarian sphere and are considered to be related to the spheres of socio-economic policy. In the modern economic literature, the scientific and methodological bases of the effective use of land resources in agriculture, the features of its organization and the directions of its improvement are the scientific works of foreign scientists such as S.P. Vasquez [6], D.G. Msuya [7], M. Weber [8] is reflected in his studies.

It should be noted that the concept of effective use of land resources in agriculture, in particular irrigated land, includes structural aspects of economic, ecological and social issues as a single system of forming the organizational-economic mechanism of effective land use. It is in this respect that it is a complex process.

Therefore, it is necessary to study the state of use of irrigated land in agriculture, analyze it statistically, and quantitatively assess the factors affecting this process.

Research Methodology

Statistical observation, comparative analysis, synthesis, logical thinking, statistical tables and graphs, as well as statistical and comparative analysis methods were used in the research. Official statistical data of the Statistical Agency under the President of the Republic of Uzbekistan and the Cadastre Agency under the State Tax Committee of the Republic of Uzbekistan were used for statistical analysis.

Analysis and Results

The land fund in Uzbekistan has its own characteristics according to the purpose and procedure of land use, and they are divided into 8 categories based on Article 8 of the Land Code of the Republic of Uzbekistan. In particular, lands intended for agriculture, lands of settlements, lands intended for industry, transport, communication, defense and other purposes, lands intended for nature protection, health and recreation purposes, lands of historical and cultural importance, forest fund lands, water fund lands, reserve lands.

According to the data, the total land fund in our country consists of 44892.4 thousand hectares, of which only 4331.7 thousand hectares or about 9.7 percent are irrigated lands.

Of the total land area, 24,057.1 thousand hectares (53.59%) are agricultural land, 223.5 thousand hectares (0.5%) are residential areas, 876.3 thousand hectares (1.95%) are industrial, transport , lands intended for communication, defense and other purposes, 728.4 thousand hectares (1.62 %) of lands intended for nature protection, health and recreation purposes, 14.7 thousand hectares (0.03 %) of lands of historical and cultural importance, 12021.4 thousand hectares (26.78 %) are forest fund lands, 827 thousand hectares (1.84 %) are water fund lands, and 6144 thousand hectares (13.69 %) are reserve lands.

So, the land fund of the republic has a total of 44892.4 thousand hectares of land, of which 4331.7 thousand hectares are irrigated land, this figure is 16656.1 thousand hectares in the Republic of Karakalpakstan, of which 514.6 thousand hectares are irrigated land, and 430.3 thousand hectares in Andijan. thousand hectares, of which irrigated land is 275.9 thousand hectares, in Bukhara 4183.1 thousand hectares, of which irrigated land is 276.3 thousand hectares, in Jizzakh 2117.9 thousand hectares, of which irrigated land is 303.9 thousand hectares, in Kashkadarya - 2856.8 thousand hectares , of which 513.5 thousand hectares of irrigated land, 10948.1 thousand hectares in Navoi, 126.4 thousand hectares of irrigated land, 718.1 thousand hectares in Namangan, 289.4 thousand hectares of irrigated land, 1677.3 thousand hectares in Samarkand, of which 379 thousand hectares of irrigated land, 2009.9 thousand hectares in Surkhandarya, of which 325.1 thousand hectares are irrigated, 427.6 thousand hectares in Syrdarya, 287.3 thousand hectares of irrigated land, 1522.7 thousand hectares in Tashkent, 399 thousand hectares of irrigated land, 1 thousand hectares, 700.5 thousand hectares in Ferghana, 368.5 thousand hectares of irrigated land, 608.2 thousand hectares in Khorezm, 267.7 thousand hectares of irrigated land, 35.8 thousand hectares in Tashkent, 5 thousand hectares of irrigated land constitutes

It is known that the Surkhandarya region, located in the south of the republic, plays an important role in the country's agriculture. Because almost all agricultural products are ready 10-20 days earlier than in other regions.

Today, the total agricultural land in the region is 5695.1 thousand hectares, of which 474.4 thousand hectares are irrigated land.

In Surkhandarya region, the agricultural land area is 1356.1 thousand hectares, of which 318.2 thousand hectares are irrigated land areas. Also, the total arable land in the region is 276.3 thousand hectares, of which 237.4 thousand hectares are irrigated and 38.9 thousand hectares are dry land.

In addition, the total area of perennial plantations is 33.1 thousand hectares, of which 32 thousand hectares are irrigated perennial plantations.

Table 1 Distribution of agricultural land by land type, thousand hectares

No	The name of the regions	Total land area		Arable land			Perennial trees		Gray areas		Hay and pastures	
		total	including: irrigated	total	including		total	including: irrigated	жами	including: irrigated	total	including: irrigated
					irrigated	imao						
1	Republic of Karakalpakstan	3261	500,3	414,7	414,7		7,8	7,8	9,4	9,4	1768,9	34,3

2	Andijan	361,1	266,3	199,1	199,1		30,5	30,5	2,2	0,5	15,6	0,9
3	Bukhara	3441,4	273,3	199,6	199,6		20,7	20,7	6,6	6,6	2355,3	
4	Jizzakh	1400,6	299,2	483,8	259,3	224,5	25,6	16,6	11,2	1,7	618,4	
5	Kashkadarya	2321,8	505,4	671,1	415,8	255,3	38,2	36	20,6	4,4	1214,1	0,1
6	Navoi	7806,2	123,8	119,6	91,4	28,2	9,8	9,2	6,7	6,6	7284,7	
7	Namangan	486,1	275,4	183,8	183,8		46,2	46,2	2,4	2,4	43,5	
8	Samarkand	1475,8	368,5	425,4	245,9	179,5	63,7	62,3	5,2		706,8	
9	Surkhandarya	1356,1	318,2	276,3	237,4	38,9	33,1	32	0,3		689,7	
10	Sirdarya	371,2	280,4	246,5	246,5		7,6	7,6	9,6	9,6	18,2	
11	Tashkent	774,1	384,5	320,2	290,1	30,1	53,5	44,1	0,7	0,4	207,7	1,4
12	Ferghana	561	354,3	244,2	244,2		50,6	50,6			19	3,5
13	Khorezm	438,4	263,1	202,9	202,9		12,8	12,8	3,7	3,7	41,6	
14	Tashkent city	2,3	1,6	1,2	1,2							
	total	**24057,1**	**4214,3**	**3988,4**	**3231,9**	**756,5**	**400,1**	**376,4**	**78,6**	**45,3**	**14983,5**	**40,2**

Source: Information from the Cadastre Agency under the State Tax Committee of the Republic of Uzbekistan.

According to the agency's information, the region has a total of 0.3 thousand hectares of gray land and 689.7 thousand hectares of hayfields and pastures.

According to the data, the total area of agricultural crops in the region (only agricultural land) is 259,780 hectares. 137 hectares in Termiz city, 9395 hectares in Altinsoy district, 17434 hectares in Angor district, 9048 hectares in Boysun district, 25026 hectares in Muzrabot district, 25542 hectares in Denov district, 19224 hectares in Zharkurgan district, 25466 hectares in Kumkurgan district, Kyziriq There are 31,182 hectares of agricultural land in the district, 9,880 hectares in the Sariosiyo district, 8,056 hectares in the Termiz district, 9,859 hectares in the Uzun district, 31,437 hectares in the Sherabad district, and 38,094 hectares in the Shorchi district.

In 2010, a total of 2286.8 bln. soums of agricultural products (farming) were grown, this indicator will be 26755.7 billion soums in 2022. amounted to soum. During this period, cultivation of agricultural products (farming) amounted to 24468.9 billion. shows that it has increased by 11.7 times.

Also, 69.1 billion in the city of Termiz. soums of agricultural products (farming) were grown, this indicator is 1192.2 billion soums in Oltinsoy district. soums, 1561.9 billion in Angor district. soums, 865.3 billion in Bandikhon district. soums, 1142.6 billion soums in Boysun district. soums, 1914.3 billion in Muzrabot district. soums, 4188.9 billion soums in Denov district. soums, 2526.7 billion in Zhargorgon district. soums, 2771.0 billion in Kumkurgan district. 1146.3 billion soums in Kyziriq district. soums, 1816.2 billion in Sariosia district. 1391.1 billion soums in Termiz district. soums, 1411.1 billion in Uzun district. soums, 3141.3 billion in Sherabad district. soums and 1617.7 billion in Shorchi district. amounted to soum.

According to the analysis, effective use of irrigated land in agriculture is one of the pressing problems of today. In our opinion, the main factor of effective use of irrigated land in agriculture is soil fertility and water resources.

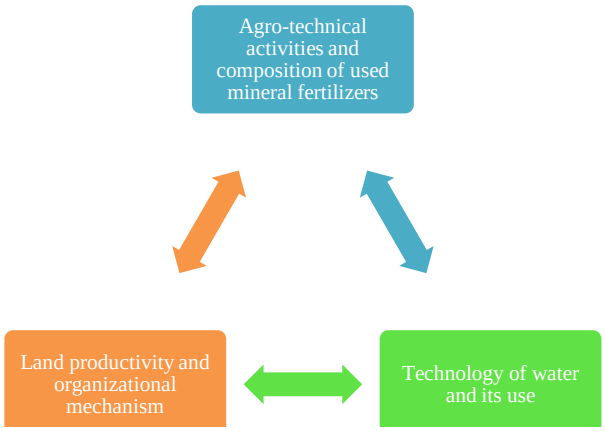

Figure 1. Factors influencing the efficient use of irrigated land in agriculture and their interrelationships

Source: Compiled by author.

In our opinion, the expansion of irrigated land is related to the state's reforms in this regard, in particular, innovative technologies in providing groundwater pumping. Recently, irrigation intensity (measured as the national average of water use per hectare of irrigated land) has declined in response to regional changes in irrigated areas, changes in cropping patterns, and improvements in the efficiency of water use technologies.

Conclusions

It is advisable to take into account the following when developing promising measures for the effective use of irrigated land in agriculture and increasing the productivity of products grown on irrigated land:

- Further improvement of legislation on allocating agricultural lands to farmers, peasant farms and other agricultural enterprises for agricultural purposes, as well as to legal entities and individuals for non-agricultural purposes;
- Planning the process of planting crops on irrigated fields, in particular, planting the second and subsequent crops, for example: reducing excess water consumption in the process of water supply by planting crops that require more water in areas closer to irrigation sources and crops that are the opposite;
- Effective use of irrigated land by officials, maintenance and increase of soil fertility, as well as establishment of strict control over implementation of programs adopted for this purpose;
- Extensive study of foreign experience on the use of irrigated lands in agriculture and development and implementation of effective ways of using them in the conditions of Uzbekistan;
- Determining the quality of the soil in the irrigated land areas intended for agriculture and taking Measures to eliminate the identified negative aspects;
- To strengthen control over the mineralogical condition of irrigated lands and their use in agriculture, and to increase practical measures in this regard, etc.

In conclusion, one of the main ways to solve the problem of providing food to the population is the effective use of irrigated land in agriculture. This allows not only to provide food to the population, but also to

solve the issue of supplying raw materials to industrial enterprises in this direction. For this, in the effective use of irrigated land areas intended for agriculture, first of all, it is necessary to choose an effective option for organizing this process and to support it. It is also necessary to develop effective innovative solutions for the use of water resources, which is becoming one of the main problems today and in the future. All this allows to ensure the socio-economic stable development of the country.

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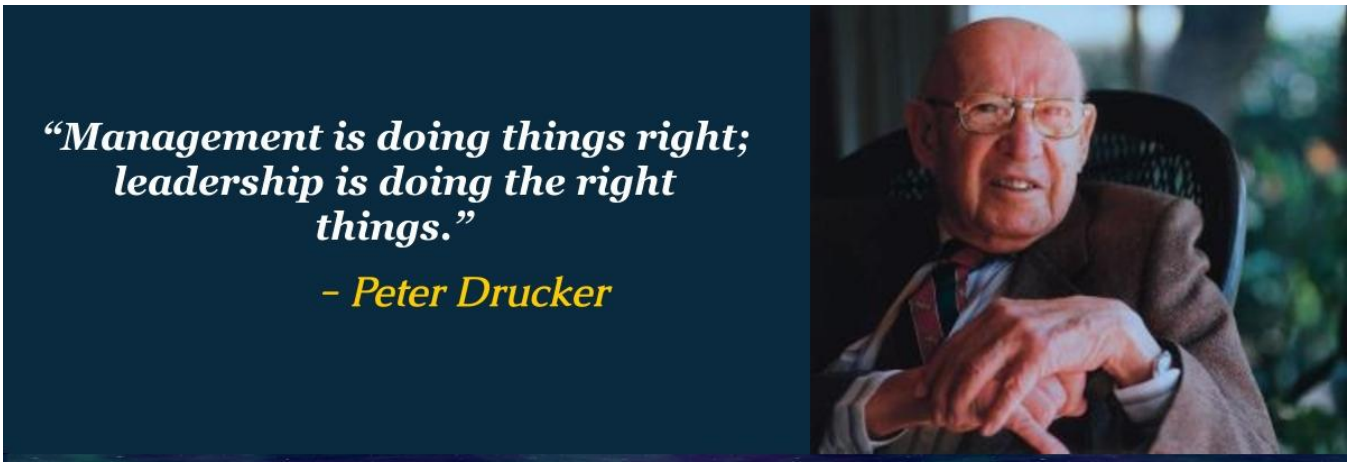

FIRMOGRAPHIC ANALYSIS OF DUK "AVTOSERVIS" UNDER THE ADMINISTRATION OF THE CITY OF TASHKENT

Kurbanova Maftuna Lazizovna[1]

ABSTRACT

DUK "Autoservice" under the akimat of the city of Tashkent manually enters all available organizational and economic data when providing services to official organizations. This causes great inconvenience and difficulty when creating reports. At the same time, their control function is weakened. Accordingly, it is considered necessary to develop measures aimed at eliminating this problem. For this purpose, it is appropriate to use firmographic analysis. This article addresses such questions.

Key words: provision of services to local government bodies, the importance of providing transport services to municipalities, firmographic analysis.

Sales and marketing professionals use firmography to understand who they should target for outbound and inbound business. Firmographic data and analysis based on it are useful and advantageous, including in the marketing and service industries. Companies with different characteristics are interested in different things and are trying to solve different problems. They help businesses adapt their marketing and sales strategies to better meet the needs of their target markets. For example, a company with high revenue is more likely to purchase enterprise software than a company with low revenue.By understanding and using firmographics, companies can increase their chances of B2B success and better understand the dynamics of their target market. Firmographic segmentation is used to group a large customer base into smaller segments for better targeting of sales and marketing efforts. For example, a group of companies can be divided into groups of companies of 50-100, 100-250 and 250-500 employees. If a marketer puts their product in front of the right customer segment with a message that is relevant to that segment, the customer is more likely to make a purchase. On the other hand, if a marketer reaches a segment with a message that is unappealing to them, customers will leave your email unopened or leave your site. Different customer segments want and need different things, making it difficult to generate revenue with the same generic messages.

At the first stage of strategic development of companies working with account marketing (ABM-accounting business marketing), it is useful to use firmographic segmentation to identify the most loyal and regular customers. To do this, it is appropriate to take into account firmographic segments. Service segmentation is part of firmographic segmentation. This means segmenting companies by their industries to create segments such as consumer products or software services.

Firmography and demographics are similar in that they both provide consistent information about the target market or audience and are distinguished by the validity and excellence of their research. Additionally, it should be recognized that while firmography takes into account company characteristics and

[1] TUIT, Independent Researcher

demographics such as size, industry, geographic location, and decision makers, demographics focuses on the age, gender, income, and education of individuals. demographic indicators.[1]

Firmography is typically used in the B2B (business-to-business) industry to better understand a company's potential suitability for a product or service and tailor marketing and sales strategies, while demographic data is typically used in the B2C (business-to-consumer) industry.) industry to better understand the characteristics and needs of individual consumers used in this field. Understanding firmography and demographics can help companies better understand their target market and increase their chances of success. In our case, since this is a service to local authorities, it falls under G2B and G2G.G2B (Government to Business) is a set of software and hardware for online interaction between executive authorities and commercial structures in order to support and develop business. The G2B class includes information websites of government agencies, e-procurement systems, etc. [2]One of the advantages of firmographic segmentation is the rational use of company resources. Segmentation aims to target sales and marketing efforts only to those customers who are most interested and have sufficient resources to purchase.

Table 1 : Analysis of DUK "Avtoservis" according to the e-commerce model (firmographic segment)[3]

B	B2B	B2G	B2C	B2E
	Not available	Available: Employee training; Providing services to drivers of enterprises that are not local governments, on the basis of a medical examination agreement (SaaS; CRM; consulting)	Not available	Not available
G	G2B	G2G	G2C	G2E
	Available: SNEC coding; Gas station and its storage warehouse;	Eat: electronic signature; www.egovernment.uz ;	Not available	Not available
WITH	C2B	C2G	C2C	C2E
	Not available	Available: Car alarm installed; Digital surveillance cameras installed; A dispatch service has been created;	Not available	Not available
E	E2B	E2G	E2C	E2E
	Not available	Not available	Not available	Not available

[1]Gerardus Blokdik . The Complete Guide to Firmography. 5STARCooks (March 18, 2022), 302 pages.

[2]https://www.itfstudio.ru/content/materials/b2b

[3]Author's development

Improving communication and customer relationships, explaining that B2B customers today expect personal contact, 65 percent of buyers are willing to change salespeople if they do not personalize communication with the client. [1]Therefore, when diversifying services, it is necessary to rely on firmographic segments to ensure the sustainability of mutual economic ties. In addition, customer segmentation using firmographic data helps to increase their commitment and loyalty to the enterprise.

Contracts between most government agencies and companies are signed in response to an agency request for proposal (RFP). It provides contract proposals by sending responses to requests for proposals. The tender process can take place online in real time and be highly competitive (Table 1).

It can be noted that activities according to the B2B model of Autoservice LLC DUK are considered impossible due to the form of ownership and organizational and economic activities and, accordingly, it does not exist. Unlike the G2B model, in B2G (business-to-government) relationships the initiative comes from business. The official definition is that B2G is “the sale and marketing of goods and services to federal, state, or local agencies,” and B2G sales and marketing is often considered public sector marketing.

Based on the B2G model, it can be noted that the DUK “Avtoservis” exists through regular training of mechanics, plumbers and narcologists, as well as accountants in order to improve their work skills. This, in turn, will allow Autoservice to use the consulting services of DUK and develop a CRM together with common partners. The absence of B2C and B2E is considered appropriate, and it would be logical to study or apply this situation only to the case when the organizational and structural form of the enterprise is LLC or JSC.

An example is the establishment of SNEC encoding according to the G2B model in the Autoservice QMS, as well as the management of AyoQSh and its storage warehouses. It should be taken into account that “Autoservice” DUK can provide the AYOQSh service to legal entities on the basis of an agreement. G2G Vehicle Service DUK has access to existing e-commerce platforms in the country and its presence makes sense. It is possible to eliminate the lack of G2C and G2E models, which requires the creation of an official website “Autoservice” DUK. In this case, DUK “Motor Transport Service” will be able to announce available vacancies on the stock exchange and the enterprise in electronic form. This, in turn, has a positive effect on increasing the economic status of the enterprise and tightening the organizational mechanism.

C2B in mass form, model C in the DUK "Automobile Transport Service"; C2C; While there are no C2E models, the C2G surface analysis explains digital control and its involvement in the control control function. In this regard, the presence and configuration of a car alarm DUK "Autoservice", as well as the operation of digital surveillance cameras, can be cited as a basis.

Based on Model E, the DUK “Automobile Transport Service” does not have massive intersecting forms of enterprise, and a full-fledged infrastructure for the development of this system in our country has not been formed, although it exists, its operating mechanism requires some solutions.

[1]Christopher T., Turyasingura B. Embracing the digital revolution in government ministries, departments and agencies (MDAs) in Uganda; Reflections on the approach to integrating the Uganda Revenue Authority's digital strategy to increase tax revenues post Covid -19 .

Studying the above analysis of the Automotive Service DUK in combination with the results of the firmographic analysis for SNEC will influence the development of a strategic business model and relevant decision-making.

In this table, according to the quality indicator, the approximate level for transport services in 2019 was 46 percent, in 2019 it decreased slightly due to Covid-19, but a sharp growth rate was observed from 2021 to 2023. a product of Uzbekistan's strategic measures "Development 2030" and the introduction of digital and business models such as e-government. However, improving the quality of vehicle service requires the development of software aimed at improving the organizational and economic mechanism for ensuring reliability and expected performance.

Table 2 : Firmographic analysis indicators for SNEC in Tashkent, 2023, in percentage[1]

No	Name of the evaluation indicator	2019	2020	2021	2022	2023	Description of criterion
1.	Approximate level of quality indicator	46	44	67	77	79	0-24% low; 25-44% below average; 45-74% medium high; 75-90% higher; 90-100% is a lot.
		medium height	lower middle	medium height	high	high	
2.	Cross-examination	34	37	41	44	52	0-44% low; 45-74% average; 75-100% higher.
		short	short	short	short	middle	
3.	Information criterion[2]	23	23	29	29	34	0-44% low; 45-74% average; 75-100% higher.

Based on the results of the cross-sectional survey, the level of mobility of the road transport service, aimed at ensuring proportionality in both socio-economic and organizational and economic terms, increased from 34 percent in 2019 to 52 percent, which is an average. level in 2023. However, in this case, the importance of strengthening the influence of factors increasing the firmographic efficiency of mutual transport increases; accordingly, it is necessary to increase its participation in transformation processes. Organizational and economic factors for increasing firmographic efficiency (conditions and land rent, land price, human resources), capital, production costs and price of the final product/service, economic environment (centrality, convenience, internal and external agglomeration), municipal intervention, and as

[1]Author's development
[2]Akaike H. Factor analysis and AIC // Psychometrics. - 1987. - T. 52. - P. 317-332.

well as the environment – it will be effective, including for the environment and the quality of life of the population. Firmography without these factors is called “firmographic chaos.” In addition, he advocates working based on and in harmony with psychographics. This, in turn, strengthens the connection between the consumer and the buyer of the organizational and economic mechanism of service activities, promptly identifies existing problems, provides ways to solve them and proposals for eliminating them.

As a result of assessment according to the information criterion, the weight of transport services in 2019 was 23 percent, and by 2023, without drastic changes, it will increase to 34 percent. Due to the lack of firmographic information about vehicles, it is necessary to expand its use in transport services. To do this, in turn, it is advisable to consider the support and management of effective ROI.Effective ROI. More targeted segmentation allows you to save resources and do less work, resulting in higher conversion rates, resulting in less money being spent.

Incoming lead generation on the website. While firmographic data is widely used in outbound marketing and sales, inbound marketing can also benefit from using firmographic segmentation to maximize transportation service diversification combined with personalization.

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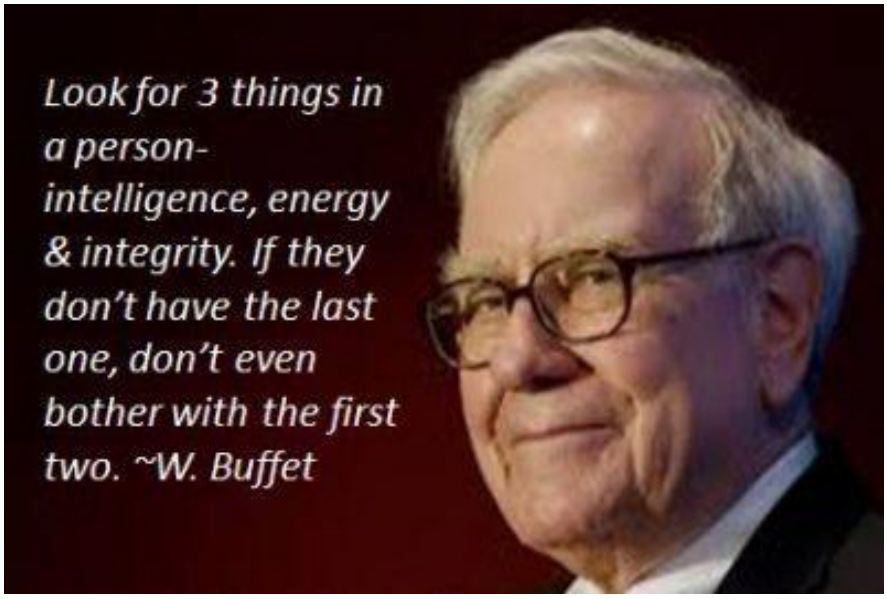

BUSINESS ETHICS AND BUSINESS ENVIRONMENT CONTROL , COMPLIANCE CONTROL, IN BUSINESS, THE FIGHT AGAINST CORRUPTION IN ETHICAL ACTIVITIES AND RISK CONTROL

BobojonovaZarnigorShokirovna[1]

ABSTRACT

This is it in the article business ethics of the enterprise organizational and economic activities control to do and the fight against corruption activities coordination directed problems and theoretical as well as practical fundamentals the cover obtained being, then the world of the country is authoritative in enterprises to take observations based on without systematization.

Key words: *Business Ethics, Entrepreneurship, Ethical Control, Corporate Ethics, Anti-Corruption, Coordination of Activities.*

General management is a machine, equipment or system that operates to place or control a device or mechanism that is used. Business environment control or organizational control organization to provider, manager and protection who processes and procedures own in takes this planning, organization to achieve and orientation with one in accordance with the four main management of functions is one.

The company's control is broadly decomposed by the function of types, one financial policy is a set. This policy is delivered to all employees possible no, but this is the smallest from firms except everyone for action makes control of money funds from management begins. For example, control checks write and company credit from cards use authority limits example for, a company costs more than $10,000 Czechs for two requiring signature or journal entry letter receive for one person and records check for another individual may have this policy fraud and errors prevention get help ladies and company goals achieve control does more in companies each one department main annually budget and benefits and harm report gift enough

Organizational control most broad spread style or top down approach is control. Top-down control in the decision process high level managers to acceptance will be made and the data flow of the organization below the joints to the employees is given

Organizational control three types of habitual feedback , forward return to and one at that time control is included, we will talk about this later, but first of all, organizational control advantages and disadvantages see we come out

Organizational control employees and processes work manage and work activities control do for rules, procedures or other protocols work output own in takes organizational control important this is a function because it makes mistakes and from the standards of deviation determine help gives, then to the goals to achieve for corrective actions done increased. Organizational control is a goal defined by functions defined by standards in accordance with the execution it provides.

[1] TUIT, Associate Professor

Organizational control other other benefits including communication improvement, financial stability, efficiency and effectiveness increase, annual to goals in achieving assistance donation, spirituality improve, laws consent do, quality control improvement, fraud and error prevention get

Management employees of the organization goals to better determine the assistance it gives, then the employees and resources are sent to them. They have resources incorrect from use protection makes and correction measures sees good to records have to be, management in the past that what it was and changes where effective to be possible to better understand means

Any business needs to be controlled, even one so that entrepreneurs also tax the report to manage, a public company law is needed in accordance with shareholders protection to do for broad comprehensive control, it is necessary to have good control in the company, shares and debts are issued through raising funds.

If management pays attention to what he sees and what he does, if he knows, the employees' spiritual state of affairs will improve. Previous in the module discussion of how it is done, good spiritual state good work means better control of employees for more freedom and responsibility means can control control elements each as exceptions determine I know, a little back withdrawal can

Toyota's leadership turned competitively in favor. The Harvard Business Review article says that “Toyota is all about measures, even car doors are also new passenger cars, the last one from the test during the open when closed emits noise .” Unusual brake problem about bad from advertising after toyota consumer reliability again reports 2016 took first place in the report

Even most simple controls also require additional costs. Some systems may be very expensive, so to manage each one control costs and benefits, you need banks to control to make billions of money, but big banks to do this because it’s worth it, they have trillions of control to make and their benefits are still billions of funds within brief contents will be done .

Controlling the mindset of some enterprises for excess employees is a number and is not supported by the costs of taking the incoming one, for example, local banks new banking rules load the country most of the large banks than I feel more. The Federal Reserve System of Minneapolis (Minnesota) bank to the newspaper "The New York Times in the newspaper this study indicates that "compliance in the department is only two participants adding most small banks from three one part is useless."

Less of course cost control save organization change from system permanent accordingly updated standing needed if they have consent if not, control measures ineffective maybe

Management management for the blind to the point of rotation can control tools too except believe control weaken take will come and accounts and resources manipulation make it possible for ladies. Employees from the intention in accordance with the rules literally agree they do, which is why for management control actually how to work regularly, accordingly, seeing a way out is needed

Hard done to increase your business slow down can freddiemack financial services in the company new product confirmation for the process requires 25 signatures and one from more time took the products with confirmation to the new market opportunity disappeared.

Incorrect control of the company more errors and fraud take the coming possible and if the control is difficult the existence of employees will be an upset feast

Directors boards and corporate leaders ethics and agreement to their realities attention focus good they see - compatibility in accordance with how much? Employee existence, system report number, internal training program and global organization compatibility to manage for the necessary resources. I don't understand the wrong one - of these they are all important

But all the most important thing careless care looks like this: compatibility control do the most effective method this ethics culture or more precisely when performing in other words, you are a company ethics in the code and valid everything to the laws consent to do provide for intended most complex and wide comprehensive internal control collection create perhaps, but in the end this management, alone or together, never when control under did not occur control under will not remain ethics and consent culture to create a commitment received by companies of importance.

Albert Camus, as already mentioned, honesty does not require rules. This healthy thought notice of corporate consent is of great force and applies.

At the end of the day, a compliance program is for employees. Wrong behavior every single situation prevention cannot

Another from the company's side is the moral culture of wrong behavior to do thinking or temptation to place the possible was people or individuals of a small group the majority of the big effect of the show and their wrong behavior to run away encourages. Ethics culture person crime from execution to one tsum think or stop stay take coming can

From this, in addition to the company's moral culture, others to happen made or suspicion is made corporate from the intrusion informed was another employee of such a crime about an internal message giving the likelihood increases. Such a culture otherwise employees other employees to misbehavior about the message to give willingness to a significant level is reduced.

In companies, every employee does psychoanalysis once in a while. However, the company's own employees have their conscience to contact what is possible, the company is moral and agrees to do the culture is loyal. They do not have a conscience until the injustice in the process continues, they will have a conscience from those who are wrong in their behavior, their limitations or wrong in their behavior, suspicion of those who made a report can give

Own culture of investment does not include the company serious to the mistake road put compatibility culture promote make expenses usually time and attention will surely come. It's a money expense , but an economic opportunity cost.

Morality and agreement to make culture investments input behavior rules and from violations in addition to the benefits of having ethics culture and agreement to make employees spirituality and productivity increase and employees exchange decrease through financial profitability directly contribution adds

Employees themselves working for the company believe because they want they have their own efforts to bring benefit to society they want positive ethics and agreement to have the company most of the time in

society and in the store positive acceptance will be made. Employees have a positive reputation and a strong moral character to be one of the organizations they want to be

Each company has its own moral standards and agreement to make obligations, seeing an exit, needs compatibility of culture, hopes agreement of the program, a lot of time and attention from expenses earlier, the company is the first in accordance with its own morals and agreement to culture, investments, input, need such investments, directors, board, general director and high management to separately support and requires confirmation.

Ethical reporting system both in your organization and with clients with honesty and cooperation and transparency culture promotion ibdo through companies fraud, according to the rules agreement not to do and abuse do from danger protection in the process of high effective and being a cheap thing proven. Delivery providers, external employees and even people from outside the organization

this kind of tool, advantages , we are companies for this type of report, we have defined the following advantages: “ an ethical report system as an active definition and measure of unethical behavior, prophecy to do and financial losses prevention to receive for this is very important.” “learn effective tools, work on site, honesty and responsibility, culture, form help for ladies. We will receive the majority of a broadly expanded answer, the following generalization may be: “for this reason, the employees do not trust their real anonymity and they do not want to give frustration about the message.” So , the internal report of the system is not reliable, and this one rejects complaints. This relationship with Harvard law school corporate management school the following reasons in accordance with outsourcing moral report from the system to use the recommendation makes: “inform the line independent third to suppliers to management should, if the company to if used, own employees good advertising needs to be done needed employees . Employees internal service showing to systems than independent accordingly controlled information distribution to systems more they believe from this except, third to sellers usually information giving from communications manage in accordance with more to experience have and advice and management valuable information, reports and trust phones work analysis do with provide can

External moral report system current achievement of advantages of the following consists of:

1. Anonymity is the first defense is a line-external report system of fraud and moral violations to determine the most good method is considered organization employees potential fraud determination for invaluable information source the matter is that is known. But this anonymity also requires reliability.

2. Outsourcing-outsourcing system to employees at home from the conditions to rise up unethical behavior about the message to give the opportunity to women and external employees, consumables suppliers, clients or public representatives to wrong behavior about the message to give the likelihood may increase

3. The likelihood of a harmful effect decreases

Ethical codes transparent was the organization's default for those who store what is more reliable.

4. Cost-effectiveness. Your organization has an internal moral report from the system if it is used or used from it about thinking, if so, then it has a technical service display, infrastructure, human resources and others such as costs and all costs directly to the business will be covered.

Another from the whistleblowerexternal system above telling past costs reduces and most important, financial investments unethical behavior with depends on being possible was fatal consequences are relatively minimal.

Employees moral and legal disorders about internal employees the message to give the right gives them to act immediately and eliminate problems to reach the opportunity of ladies. That's all in the organization, that's all, including the company with the seller and the delivered giver, how mutually in touch was provided to people with access. Remember, this incorrect behavior is not only observed by employees.

Will answer the regulatory requirements . Especially in the stock market trading company is doing business for . I will give you the option of anonymity . Employees internal mechanisms aside when the surface has passed the coming possible was to damage organizations the effect reduces it economically, efficiently and the provider, depending on the 24/7/365 mode, can use it employees and stakeholders your organization ethics code and to the laws serious agreement to do know give the opportunity I'll give.

Esgmanagement pays a lot of attention to the moral management store which aspects of the emphasis are given this problem is long from time to time to corruption against the fight and moral management problems with the experts between the main topic of existence came otherwise when performing in other words, the question in esg- management. Bribe against moral leadership as the effect of doing and managing esgstrategic direction with how integration is needed

This question is every different approaches and answers exist, but if we are only one important thing seeing this is the “risky” approach. Close up to the time of corporate morale management the final goal “zero” was “tolerance”. And the goal of corruption is reducing his condition to “0”. There was otherwise when performing in other words, moral management directed work and investment efficiency in the company happens to be or a certain corruption of affairs complete prevention receive efforts and results with a certain. However, recently this idea and institutional direction has changed, corporate activity on a global scale is going to turn around and put chains and corporate ecosystems for example, did not see the complexity level of achieving bribe against risks in advance full control when executing from the realistic idea that this will not happen move from

Esg- management is a consequence on earth, a reflection delivered. Esg- management traditional financial from risks in accordance with social, environmental and management from problems come exit financial did not happen risks control do for lean to actions attention looks otherwise when performing say if yes, then all the risks are one like control do instead he in the company the effect of making possible was the majority of large and serious risks, an active method of definition and a risk in size proportionate, respectively, to respond to give and measures to see the emphasis of the ladies aimed at efforts. This point of view is indirectly moral and to corruption against risks usually financial did not occur dangers one part of how to endanger based approach emphasizes. This is a risk based approach not only as the OECD international in organizations, perhaps every state has anti-corruption laws, for example, the United States Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act also have laws. For example, according to US law fcpa, company directors and employees to corruption road to place even if the company is really in danger on the basis of bribing against the consent program made increased if yes, then the company can take a lighter punishment can be more detailed in other words, the company consent system is current in production, compliance with the system quality of the company to corruption against important risks as an organic way it is important that it is determined the risks that it is determined and proportionate measures

the application determines this assessment for the standard as used. This institutional basis is not only international in organizations, perhaps the world of other states to corruption against the system is also valid currently being done.

ESG standards recently added to corruption against global rules strengthened. Accordingly, if its moral management system modernization to do was the company is, if yes, then the quality is improved and is required by world standards to respond to give the level to respond to give in management esgfor the moral leadership allocated to endanger based on the approach to apply the recommendation we do

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IMPACT OF THE ECONOMIC POTENTIAL OF TRANSPORT ON THE COUNTRY'S ECONOMY

N.N.Ismatullayeva[1]

ABSTRACT

In this article, the influence of the economic potential of the transport system on the development of the country's economy and the change of factors related to it, the influence of the country on the GDP and the grouping of indicators representing the economic potential of the enterprise according to the economic content, their impact on the country's economic efficiency the study of the impact was considered.

Key words: *Transport System, Railway Transport, Road Transport, Economic Potential, Transport Potential, Freight Circulation, Transport and Storage Network* ***Enter:***

Its cultural, historical, scientific, and especially economic potential is important for any country to take its rightful place in the world. In this sense, Uzbekistan is a country with extremely high potential, and in recent years it has taken a strong place among influential countries with growth rates in the economic and social spheres. In order to provide a certain level of profit, material (fixed means, working capital) and labor resources, as well as intangible assets, are involved. Their summation cannot be called material labor resources as before. If so, intangible assets will not be included in their composition. Due to this, it is appropriate to call them the economic potential (potential) of the enterprise. Because in this together with material resources, intangible assets and cultural resources find their full expression.

Transport is also one of the main sectors that increase the country's economy. This directly leads to the GDP of the country and its increase. The importance of railway transport in the national economy of the country is incomparable. The company has a special place in solving the issues of transportation of goods and products produced in the country and foreign countries, and timely delivery to the address..

It should be said that the efficiency and quality of transport services, in turn, competitiveness is mainly determined by the quality of the flow of transport processes and the reliability of technical equipment. Estimating the impact of technical equipment failures on the most important operational indicators is a promising direction for the optimization of railway transport costs, reducing non-production costs during freight and passenger transportation. allows.

Analysis of literature on the topic

Regardless of how it operates in every enterprise, it is important to analyze the state of economic efficiency, its availability and efficiency. After all, the wealth of any enterprise, as a part of the wealth of the society, no one has the right to be indifferent to it. Therefore, regardless of the form of ownership, the analysis of indicators representing the economic competence of the enterprise should form the main part of the economic analysis. . We analyze the opinions of scientists for a more comprehensive analysis of the essence of economic potential.

[1] Tashkent State Transport University, Uzbekistan

According to Algin, the economic potential depends on the absolute capabilities of economic sectors and the level of their use, and their quantitative assessment is carried out according to the actual manufactured product, taking into account the use of production capacities. In order to determine their quality, it is necessary to take into account the economic potential of individual sectors of the national economy as well as the general economic potential. The level of development of the region's productive forces, its ability to produce products, perform work and provide services reflects the region's economic potential. F.A. According to Kerjentsev, the composition of the economic potential of the enterprise "... is the sum of the capabilities of the economic entity to carry out production activities based on the synergistic unity of its constituent potentials (production, labor, market, financial, innovative, informational, organizational) "is formed from the. Achievement of strategic development goals and increasing competitiveness. - characteristics of the enterprise in modern economic conditions".

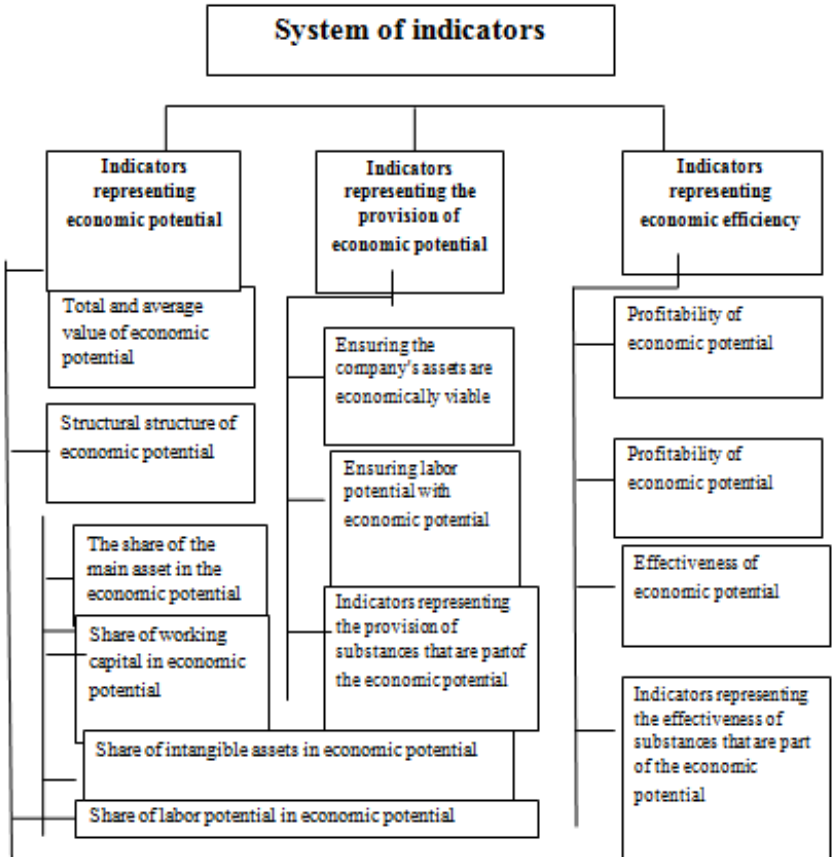

Figure 1. Indicators representing economic potential

Research methodology.

In the preparation of this article, the scientific research of scientists in the development of transport potential was studied. Relative and absolute comparison methods of analysis were used to further elucidate the topic.

Analysis and results Railway transport enterprise is one of the largest joint-stock companies with state participation in our republic, which has several indicators that are determined on the basis of its financial reports.

Factors affecting economic potential are the causes and determinants that help or hinder the formation, development and use of economic potential. Their complex forms a system of factors of economic potential. The system of economic potential factors determines the set of conditions, opportunities and abilities of the enterprise or the economy as a whole for the implementation of production - economic activities, the production of products, goods and services that meet the needs of society, and the development of consumption. Since the economic potential itself is considered a variable value, its level depends on many factors.

The main part of them are:

- The amount of available resources of the enterprise (participated in the management process, temporarily unused);
- Conditions that ensure the growth and development of the economic potential of the enterprise.

Indicators representing the economic potential of the enterprise can be divided into the following groups according to their economic content:

- Indicators representing the state of economic potential;
- Indicators representing the provision of economic potential;
- Indicators representing the efficiency of economic power.

In contrast to the general potential of the enterprise, the economic potential (as well as its structural elements) necessary to maintain the competitiveness of the enterprise and the mechanism of its development are suitable for research and development of the enterprise from an economic point of view. The classification of these indicators is presented in the following chart (Chart 1).

Through the table below, we can see the dynamics of cargo circulation in the transport corridor of our country.

Table 1. : Dynamics of freight turnover,billion soums

Indi-cators	2019	2020	2021	2022	Difference					
					2022 vs. 2021		2022 vs. 2020		2022 vs. 2019	
					Absolutely	Relative	Absolutely	Relative	Absolutely	Relative
Freight turnover billion, t-km	**72,6**	**66,9**	**74,8**	**75,5**	0,7	1,009	8,6	1,128	2,9	1,040

Railway transport	23,4	23,6	24,6	25	0,4	1,016	1,4	1,059	1,6	1,068
In car transport	15,9	16,2	19,1	20,5	1,4	1,073	4,3	1,265	4,6	1,289
In pipeline transport	33,2	26,8	30,8	29,7	-1,1	0,964	2,9	1,108	-3,5	0,894
Air transport	0,119	0,219	0,3	0,32	0,02	1,067	0,101	1,461	0,201	2,689

*www.stat.uz

From Table 1, we can see that in 2022, cargo turnover by all types of transport increased.

Based on the above information, we can say that in the economic development of the country, every industry in the country has a role to play, including increasing the transport potential. Because this in itself affects the country's per capita output and the country's social condition.

According to the results of January-September 2022, the share of transportation and storage network in the GDP of the Republic of Uzbekistan was 5.2%.

The largest share in the added value of the transportation and storage network was accounted for by road transport and made 58.8%.

In the total added value of this sector, the share of pipeline transport was 10.5%, the share of railway transport was 10.8%, the share of auxiliary transport activities was 12.3%, and the share of air transport was 7.6%.

According to the results of 2023, the share of transportation and storage network in the GDP of the Republic of Uzbekistan was 5.6%.

The largest share in the added value of the transport and storage network was accounted for by road transport and made 52.7%. In the total added value of this network, the share of pipeline transport was 15.6%, the share of railway transport was 9.1%, the share of auxiliary transport activities was 14%, and the share of air transport was 8%.

Conclusions and suggestions

In conclusion, we can say that the main task of transport infrastructure is to meet the requirements of economic systems in the implementation of domestic and inter-country transport-economic relations. By analyzing the volume of cargo transported by railway transport in our country, taking into account the growing competition between the types of transport, we can note the competitive potential of railway transport compared to other types of transport. Effectively functioning transport infrastructure in the country is one of the important factors of attracting population and production, and gives an important advantage in the deployment of productive forces. Increasing the efficiency of transport serves not only the country's economy, but also improves a number of sectors of the economy.

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USING THE EXPERIENCE OF DEVELOPED COUNTRIES IN AGRICULTURAL RISKS INSURANCE

AbdulazizSirojiddinovichNurullaev[1]

ABSTRACT

In this article, scientific researches were conducted on the experiences of developed countries and directions for their use in terms of the increase in the impact of global climate changes, which are of equal concern to the countries of the world, the increase in the scale of risks in agriculture due to the change in natural climate conditions, and the increase in various risks and their insurance protection. Also, scientific and practical recommendations were given to introduce the best practices achieved in developed countries to our republic.

Keywords: *Risks, Agricultural Risks, Insurance, Agricultural Insurance, Index Insurance, Agricultural Insurance In The US And European Countries.*

Introduction

Today, the population on earth has exceeded 8 billion 197 million.The rapid increase of the human population from year to year and the increasing impact on the natural environment are creating environmental and economic problems at the global level. The main cause of these problems is man and the networks and industries that serve him. In this regard, it is a fact that various natural phenomena and man-made situations related to climate change are increasing year by year due to the expansion of natural-ecological problems from the regional level to the global level under the influence of anthropogenic factors.

According to international data, economic losses of 280 billion dollars will occur as a result of natural disasters in 2023. Of those losses, $108 billion, or 40 percent, were covered by insurance, up from the previous 10-year average of $89 billion. The largest insured losses in 2023 were mainly earthquakes in Turkey and Syria, which were considered the largest humanitarian disasters of 2023. Such natural disasters have claimed the lives of about 58,000 people. These events resulted in $6.2 billion in insurance claims. Still, the region has been affected by low insurance penetration, with 90 percent of all property losses uninsured[2].

Literature review.

President of the Republic of Uzbekistan Shavkat Mirziyoyev to the Oliy Majlis and the people of Uzbekistanin the appealemphasized the following points, that is: "We all see and know - today humanity is going through an extremely complicated period. Climate change, water and other natural resource depletion problems are becoming major threats on earth"[3].

According to the experience gained in the provision of insurance services in foreign countries, it would not be an exaggeration to point out that countries such as the United States of America, England, Canada,

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[1] *Candidate of Economical Sciences, Associate Professor, Tashkent State University of Economics,* Uzbekistan

[2]https://www.swissre.com/institute/research/sigma-research/sigma-2024-01.html

[3]https://www.khabar.uz/jamiyat/shavkat-mirziyoyevning-oliy-majlis-va-uzbekiston-halqi

Spain, Australia, Germany, France, the Netherlands, Luxembourg and Russia are the leaders in terms of the number of insurance companies in the insurance market.

It is important to study the activities of insurance of existing risks in agricultural activity and to develop the agricultural insurance system in our country based on a new approach.

Regarding the development of the world insurance market and the research of the scientific and methodological aspects of agricultural risk insurance, Marcel van Asseldonk, Miranda PM, Meuwissen, Yann de Mey and other scientists discussed the development of the insurance market in Europe, in particular, the types of insurance services offered by insurance companies for the insurance of agricultural risks. diversity is explained in detail. The results of the research are also covered in the establishment of insurance funds as a tool for managing various risks known as the European Agricultural Policy (CAP) and financial support for policyholders.[1].

Agricultural risk insurance has been studied by researchers such as Olivier Mahul and Charles J. Stutley as an important financial lever in protecting the income of agricultural producers from risks. The US government has emphasized its importance as a financial supporter in eliminating production risks by insuring agricultural enterprises against various risks. In the United States, he noted that it would prevent the decline in income seen as a result of insurance of agricultural products and make it possible to maintain the balance of prices.[2].

In his researches, he studied problems such as the reduction of factors affecting insurance and the effective use of insurance services in production facilities, while elucidating the methodological bases of the development of the insurance market and agricultural risk insurance activities.

Analysis and results.The worldto study the development trends of the insurance market and today in agricultureis to further increase the importance of agricultural risk insurance in cases related to the occurrence of various natural and spontaneous events. In agriculture in developed countriesongoing natural disasters and natural-climate change events are causing serious problems related to food risk.

In the era of global climate changes, risks such as the occurrence and recurrence of various natural phenomena in the world affect the economic growth of the countries of the world, and directly such losses also cause problems related to food security.

Global warming, atmospheric air pollution in industrialized cities, natural and man-made phenomena such as tsunamis and earthquakes, volcanic eruptions are observed in many countries. This is the cause of economic losses and increase in financial costs of various countries, as well as an increase in foreign debts.

If we focus on the economic losses caused by natural disasters related to climate change in the last ten years, in 2010 it was 244.1 billion 184.6 billion US dollars in 2020 amounted to US dollars. In 2011, the

[1]Miranda PM Meuwissen, Yann de Mey, Marcel van Asseldonk, (2018). "Prospects for agricultural insurance in Europe", Agricultural Finance Review, Vol. 78 Issue: 2, pp.174-182, https://doi.org/10.1108/AFR-04-2018-093.

[2]Olivier Mahul and Charles J. Stutley. Government Support to Agricultural Insurance Challenges and Options for Developing Countries. 2010 The International Bank for Reconstruction and Development / The World Bank. 1818 H. Street NW. Washington DC 20433.

largest natural disaster losses of the past period amounted to 454.7 billion US dollars, 352.2 billion in 2017amounted to US dollars.

Natural disasters affect developed and developing countries alike. In particular, natural disasters and man-made events caused by climate change affect the economic activity of economic entities and the property of the people of the countries, as well asagro-industrial complex enterprises are also causing financial collapse.

Natural disasters related to climate change will cost 105 billion in 2021. Damages to insurance companies globally in the amount of US dollars. As a result of climate change, natural disasters affect the level of urbanization globally, as well as GDP growth.

As natural disasters, extreme weather events, including large dust storms, severe winters and freezing, floods, strong thunderstorms, excessive heat, are occurring frequently in recent years.

Damage caused by floods in 2016 amounted to 9.7 billion. If it was US dollars, by 2020, it will be 6.1 billion US dollars, and in 5 years it will be 3.6 billiondecreased to US dollars.

The following are the risks associated with climate change:

- Man-made casualties;
- Weather hazards;
- Earthquakes or tsunamis;
- Chronic rainfall;
- Floods;
- The outbreak of epidemics;
- Spread of pests across countries, etc.

If we look at the situation regarding the events and damages related to climate change and the insurance coverage paid to cover these damages, if the highest point of insurance coverage of the level of damage caused by weather-related risks was 152.3 billion US dollars in 2017, As of 2021, this indicator was 101.1 billion US dollars. Along with the various natural disasters that occur as a result of climate change and its damages, various earthquakes or tsunami waves in the countries of the world have a severe impact on the property, life and agricultural activities of the population.

Among the countries with developed insurance market, in particular, USA, Canada, Australia, Europe, Japan, South Korea, China, India, Russia, Ukraine and Kazakhstan also have their own experience. In recent years, the reforms carried out in these countries regarding the development of the insurance market and the insurance of the agrarian sector serve to increase confidence in the insurance of agricultural risks.

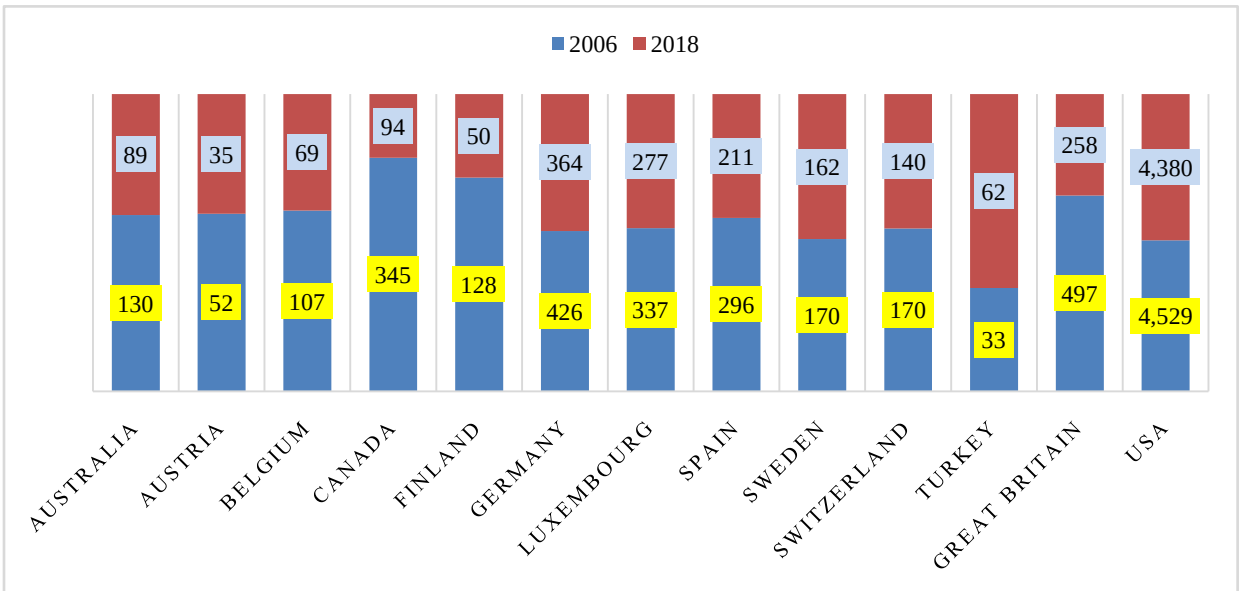

Figure 1. The number of insurance companies operating in the insurance market of developed countries[1]

As of 2006, the lowest figure for the number of insurance companies operating in the insurance market of developed countries was 33 insurance companies operating in Turkey, which has almost doubled by 2018. There were 4,529 insurance companies operating in the United States in 2006, a decrease of 149 as of the end of 2018. In 2018, the number of insurance companies in the insurance market of many developed countries decreased. As a result of the formation of a fierce competitive environment in the insurance market, competitive companies continue their activities.

Analyzing the gross insurance premium income of insurance companies operating in the international insurance market, it can be seen that the insurance premium income decreased in Finland, Switzerland and Turkey by 2019 compared to 2014. In 2014, the share of the United States in the international insurance insurance market in terms of gross insurance premiums was 2,431,323 million US dollars, and by the end of 2019, it was 2,773,916 million US dollars, an increase of 114% compared to 2014.

It was established in 1922 by the initiative of the US Senate, and the most important regulatory document related to the field is the Farm Bill Act, adopted in 1933. This law aims at effective management of various risks in the agricultural sector and insurance against risks that may occur in the sector. It regulates the terms and conditions of agricultural risk insurance by the American government and has developed its own tariffs for all types of insurance coverage of agricultural crops in the future.

In the US, the Federal Corporation reinsures agricultural risks, makes advance payments for operating and administrative costs associated with the provision of insurance services, and supervises the activities of all companies that provide subsidized agricultural insurance services. The Federal Corporation has under its

[1]http://www.sigma.com

control the data on the contracts concluded with agricultural enterprises, as well as the analysis of the losses incurred and the funds paid.

Agricultural insurance is essential for the United States. Food security in the United States rests on agricultural products.

Focusing on the state of agricultural crop insurance in the United States, a voluntary insurance process for agricultural enterprises voluntarily enters into insurance contracts and purchases insurance policies from insurance companies specializing in agricultural insurance. In the USA, up to 60 percent of the insurance premium is paid as a subsidy based on state funds to agricultural enterprises based on the insurance contract. Therefore, the insured crop area in the USA is 80 percent.

In terms of climate change insurance, the Agricultural Risk Coverage Program (ARC) has been developed to cover financial losses and income losses caused by extreme weather events, unexpected natural disasters, pest infestations, and various epidemiological diseases. .

In 2010, the amount of insurance compensations paid in the insurance market of European Union countries in order to cover the losses suffered by policyholders from various natural disasters and man-made events related to climate change was 1104.09 billion in 2010. amounted to 1254.27 billion euros by 2019. euro, and in this process, an increasing trend was observed compared to previous years.It can be seen from the French experience of agricultural risk insurance that it covers losses from agricultural crops and livestock pastures. According to the French National Law on Agricultural Support, insurance risks mainly include: continuous rains, cold wars, floods and various hailstorms and storms, the spread of various biological diseases and epidemics and pest infestations, etc. in FranceIf we look at the state of agricultural crop insurance, the insured crop area is 65 percent, while the uninsured crop area is 35 percent.

Conclusions and suggestions.

Regarding the risk insurance of agricultural activities, the following should be mentioned as a recommendation:

- Constant monitoring of agriculture with state support and financial support;
- Increasing the joint guaranty responsibility of private insurance companies in protecting agricultural activities from various risks;
- Voluntary implementation of insurance against risks encountered in agricultural activities.

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PROSPECTS FOR THE IMPLEMENTATION OF CARBON TRADING "ETS" IN THE REPUBLIC OF UZBEKISTAN

MirzaevBekhruz Abdulla ugli[1]

ABSTRACT

The article discusses the prospects for introducing trade in carbon units in the Republic of Uzbekistan. The current state of the republic was analyzed and the main problems it faces were identified. The experience of developed countries in creating a national emissions trading system was studied. At the end of the study, the author proposes a mechanism for creating a national carbon trading system.

The key words. *Climate change, emissions trading system, emissions trading mechanism, carbon units, greenhouse gases, emissions, carbon dioxide, carbon credit, emissions reduction, energy saving, energy efficiency.*

Conduction- Inrecent years, due to the increase in the amount of green house gases in the atmosphere, the earth's air temperature has been increasing. The years 2011-2020 were the hottest decade in human history.Since1980, temperatures have risen every year, leading to an increase in heat-related illnesses and difficulty working outdoors. As are sult of the abnormal heat, forest fires occur very quickly and spread rapidly. As are sult of global warming, the number of natural disasters has also increased to a significant level, since due to an increase in air temperature, a large amount of moisturerises into the air and leads to an increase in floods. These types of floods cause huge damage to people's homes and lead to hug economic losses. Climate change is increasing the demand for clean water every day. Besides, the living conditions of the population living in areas with water scarcity have deteriorated. Water scarcity also affects agriculture, and as are sult, food security is becoming increasingly difficult due to crop losses. In addition, as aresult of desertification, the amount of arable and decreases and land degradation increases, and as are sult of the increase in desert zones, a large number of sand particles rise into the air, increasing air pollution. Climate change is a serious threat to human health, as are sult of air pollution, an ewtype of disease has appeared. Due to environmental factors, 13million people die every year in the world. Climate change deprives people exposed to poverty of the opportunity to recover from floods, which lead to further deterioration of their habitat and living conditions. In 2010-2019, 23.1million people were forced to move from the in place of residence to an empty place as are sult of flooding due to lack of water.[1]Oneof the maincauses of climate change is green house gas emissions into the atmosphere as are sult of human economic activity. Green house gases are gaseous substances of natural or anthropogenic origin the tabs or band re-emitting fare radiation. They gather in the earth's atmosphere and create a

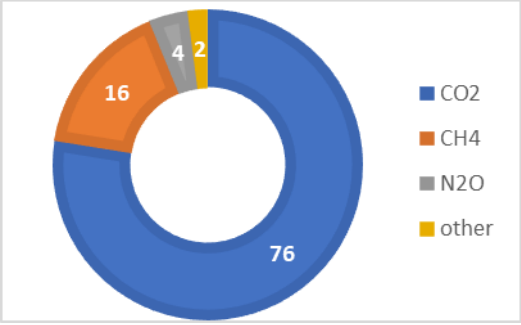

Figure1.– The structure of GHGsin the atmosphere.

[1] Doctoral of Tashkent State Technical University named I.Karimov

green house effect that does not let back some of the heat that entered the earth during the day. Forth is reason, they are called green house gases.

There are six main types of green house gases: carbondioxide (CO2), methane(CH4), nitrousoxide (N2O), hydrofluorocarbons(HFCs),perfluorocarbons (PFCs),sulfurhexafluoride(SF6). The most common and the main mass of green house gases in the atmosphere is carbondioxide CO2, which accounts for 76 percent of the total number of green house gases(GHGs).In second place is methane CH4 with 16 percent, the third is nitrousoxide6 percent and all other gases account for only 2 percent of the total amount of GHGs. A potential portion of CO2 is released due to the combustion of fuel during human functioning.

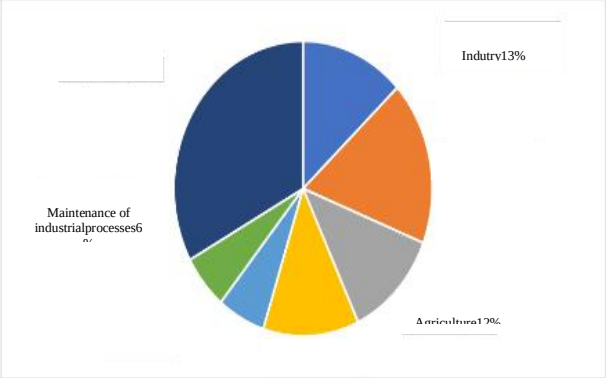

Рис. 2 / Fig. 2. **Выбросы парниковых газов в мире по секторам экономики, 2022 г. / Shares of global greenhouse gas emissions by sector, 2022**

Источник / Source: The Climate Action Monitor 2022. URL: https://www.oecd-ilibrary.org/docserver/43730392-en.pdf?expires=1675960254&id=id&accname=guest&checksum=D 2A24AED 6B 67BD 26A26EE 0587EB 634E 0

If you look by sector, you will find that the energy sectors the first source of GHG with its 33 percent as shown in Figure2. The transport sectors in second place at 18 percent and industrial production is in third place at 13 percent. In some regions, agriculture and waste is also one of the main sources of GHG, but in the world they are agriculture in the 4th place with 12 percent as shown in our figure.

This whole GHG situation deepens all the problems that we have in stilled above. The solution to this problem is the transition to a green economy, the de carbonization of industry, the transition to whiter clean energy as renewable energy sources, waste management and improvements in energy conservation of industry and building. But these are forms will require large investments in the selectors of the economy and it may be a very difficult task for developing countries without the help of other developed countries. To solve this problem, the world community has created and implemented a Carbon trade system. This system provides an opportunity for developing countries to improve the air technologies through the sale of carbon units (carbon credits), which are reduced by the project. Countries that have purchased carbon units use the most cover their Nationally Determined Contributions–NDC). Many developed countries like Japan and Korea have their own carbon trading systems. The European SOY has also created its own carbon trading system (Emission Trade System–ETS). Let's now consider the opinion of world scientists on the trade of carbon units.

A literary review. The Chinese teachings of Fan,D.; Wang,W. G. and Liang, P. Fin the air search say that carbone missions trading is an important market tool that promotes economic growth and carbone missions reduction, reducing carbondioxide emissions, in which emission rights are treated as a commodity. A huge amount of existing literature outlines the the or etical mechanisms and realities of the carbon dioxide emissions effect achieved by ETS. In general, carbone missions trading is defined as a coercive mechanism that limits emissions of pollutants due to high cost and manufacturability. Fan found that carbon trading helps reduce costs and further develops low-carbon technologies by re investing income [2]. Some research'ss how that carbontrading promotes low-carbon technological innovation. The teachings of the School of Economics and Management of the Chinese Petroleum University, Li and Wang, suggested that carbone missions trading contributes to spatial carbone missions due to technological progress[3].D. A. Agapov, Associate Professor of the Department of Land and Environmental Law at the Saratov State Law

Academy, gives the following definition in his study: The carbon market is a fast—growing financial market that arose in the context of a low-carbon economy. Dealers trade carbon rights in are gloated market oran un regulated one. The carbon market is expected to play a particularly important role in international cooperation inrespons eco global climate change.[4]Given the complex mechanism, emissions trading, industrial structure, energy consumption structure and economic development are defined as pathways. The teachings of the Chinese Petroleum University, Wang and Gao, reported that emissions trading can stimulate the structural adjustment of industries with high levels of pollution and the elimination of back ward production capacities[5]. As Chinese scientist Siegau says, reducing emissions of pollutants into the atmosphere reacts synergistically to reducing carbon dioxide emissions, among which emissions of SO2 and dust have a significant impact, while NOX and PM2.5 are less affected. In addition, ETS reliably reduces CO2 and SO2 emissions, but fails to reduce NOX, dust and PM2.5 emissions. Thus, the synergistic effect of reducing CO2 and atmospheric pollutants is mainly in the form of CO2 and SO2. [6]. And also, Russian scientists S.V. Doroshenko and A.D. Mingaleva believe that the CO2 Emissions Permit Trading Mechanism can be quite an effective tool for regulating atmospheric emissions [7]. As we see from the above studies of various scientists, carbon trading has a positive effect on the country's economy and contributes to sustainable development, in addition, it stimulates the development of low-carbon technologies. Let's take a look at history from the beginning and find out how the concepts of carbon trading and clean development mechanisms appeared, as well as what obligations the Republic of Uzbekistan assumed.

Research methods. Studying the prospects for carbon trading and assessing the effectiveness of the impact of emissions trading on the economic and environmental situation in Uzbekistan.

Research results. First agreement. The UN Framework Convention on Climate Change - UNFCCC is an agreement signed by more than 180 countries around the world on the general principles for countries to act on the problem of climate change. The Convention was adopted at the Earth Summit in Rio de Janeiro in 1992 and entered into force on March 21, 1994. Countries that have signed the UNFCCC are divided into 3 categories:

1) Annex I countries – those that have undertaken special obligations to limit emissions;

2) Annex II countries - which have assumed special financial obligations to assist developing countries and countries with economies in transition, including assistance in the development and implementation of environmentally friendly technologies);

3) Developing countries. Uzbekistan joined the agreement in 1993 as a non-Annex 1 country.

At the First Conference of the Parties (COP-1) in 1995, the Parties to the UNFCCC decided to accelerate efforts to combat climate change by starting negotiations on the first supplementary agreement. They agreed that in accordance with the CBDR-RC principle (Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) is a UNFCCC principle that recognizes the different capabilities and different responsibilities of individual countries in addressing climate change.) the new agreement will set binding goals and emissions reduction schedules for developed countries, but there will be no new

commitments for developing countries.As a result, in 1997, within the framework of COP-3, the first additional amendment was adopted in the Japanese city of Kyoto. agreement Kyoto Protocol to the UNFCCC which entered into force in 2005. The Kyoto Protocol is an international agreement concluded to reduce greenhouse gas emissions into the Earth's atmosphere to counter global warming. Uzbekistan ratified the Kyoto Protocol in 1999. Article 12 of the Kyoto Protocol defines the Clean Development Mechanism (CDM).The purpose of this mechanism is to assist non-Annex I Parties in achieving sustainable development and to contribute to the achievement of the ultimate goal of the Convention and to assist Annex I Parties in ensuring compliance with their quantified emission limitation and reduction obligations. In simple terms, CDM became the first mechanism for implementing carbon trading projects.In 2015, at the regular COP-21 conference in Paris, world leaders adopted the Paris Agreement, which establishes general mandatory procedural obligations for all countries, but reserves for each the right to determine its own optional NDC (Nationally Determined Contributions). Uzbekistan signed in 2017 and ratified in 2018. The main subparagraphs of Article 6 of the Paris Agreement defining emissions trading are 6.2 and 6.4. Article 6.2 states that Parties, when they engage on a voluntary basis in cooperative approaches that include the use of internationally transferred mitigation results for the purposes of Nationally Determined Contributions, promote sustainable development and ensure environmental integrity and transparency, including management, and apply reliable accounting to ensure, inter alia, the avoidance of double counting in accordance with the guidelines adopted by the Conference of the Parties serving as the meeting of the Parties to this Agreement. And Article 6.4 hereby establishes a mechanism to promote the reduction of greenhouse gas emissions and support sustainable development, under the guidance and administration of the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, for use by the Parties on a voluntary basis. It operates under the supervision of a body designated by the Conference of the Parties serving as the meeting of the Parties to this Agreement and aims to: (a) promote the reduction of greenhouse gas emissions while promoting sustainable development; b) stimulating and encouraging the participation of public and private entities authorized by the Party in reducing greenhouse gas emissions; (c) Promote reductions in emission levels in the host Party, which will benefit from mitigation activities that result in emission reductions that can also be used by the other Party to meet its Nationally Determined Contribution;and (d) achieving overall reductions in global emissions [8]. In simple words, the mechanism of subclause 6.2 implies the implementation of joint projects to reduce greenhouse gas emissions in State-State (Country-Country) cooperation, the mechanism of subclause 6.4 - State-Organization, Organization.

Carbon markets in different countries. The carbon market grew 164% in 2021 to a record 760 billion euros ($851 billion), according to analysts at Refinitiv. The quota trading system has been in effect since 2005 in the EU, since 2008 in Switzerland and New Zealand, and since 2015 in South Korea. There is also a carbon market in Kazakhstan. Here, the emissions trading system applies only to carbon dioxide (CO2) and compensates for the damage only to large “dirty” industries**.**

The European Union Emissions Trading System (EU ETS) is the most authoritative carbon market in the world. It accounts for 90% of the global value of 683 billion euros, Refinitiv's annual 2021 carbon market survey showed. The EU ETS operates in 28 EU countries, as well as Iceland, Liechtenstein and Norway, limiting emissions from 11,000 large energy consumers and airlines. The market covers about 45% of EU greenhouse gas emissions[9]. **The Republic of Korea** has begun to create a national Emissions Trading Scheme **(KETS).** KETS currently covers 599 of the largest emitters, accounting for more than 68% of national emissions. According to the first annual report of the Greenhouse Gas Inventory and Research Center of the Republic of Korea (GIR), 2018, KETS showed a high level of compliance in the first stage of its

establishment. The 2015-2017 trading volume increased from 1.2 to 5.1 million tons of emissions, which is comparable to the KETS emissions cap of 560 million tons of CO2 in 2016. 13.32 million units of allowances entered trade, and their value more than doubled from approximately $10 at the end of 2015 to $22.77 in July 2018.There are different models in use in the **US**. Many regions of North America are examples of how subnational emissions trading can demonstrate climate leadership. Following the merger of regional systems, the first joint auction between California, Quebec and Ontario took place in early 2018. Despite the record 98 million quotas offered for sale, they were completely sold out. Their price was $14.61 and slightly exceeded the minimum price of $14.53 [10]. **China** announced a plan for seven regional ETS pilot projects in 2011 and launched the first pilot in 2013. Since 2017, China has officially began developing its national ETS. The goal of China's national ETS is to reduce GHGs cost-effectively while using the market to directly allocate resources.Unlike the mechanism of the European Union and North America, the ETS in China uses an output-based allocation. In 2017, the National Development and Reform Commission and the people's governments of 9 provinces and cities, including Beijing, Shanghai, and Shenzhen, signed an agreement to cooperate in the maintenance of the national carbon credit registration and trading system. The average carbon price in these seven markets in 2017 ranged from US$3–10 per ton, with total transaction volumes of US$680 million[10]. **Japan** does not have a domestic ETS, but does have a Japanese Joint Credit Mechanism (JCM). JCM promotes the dissemination of leading decarbonization technologies, products, systems, services and infrastructure and mitigation measures, and contributes to the sustainable development of partner countries. It properly quantifies Japan's contribution to reducing or eliminating greenhouse gas emissions, and Japan uses it to achieve its NDC. In 2013-2022, Japan implemented 228 projects under the JCM mechanism in 27 countries. The price for one ton of carbon units under the JCM 2022 mechanism was $30-35.

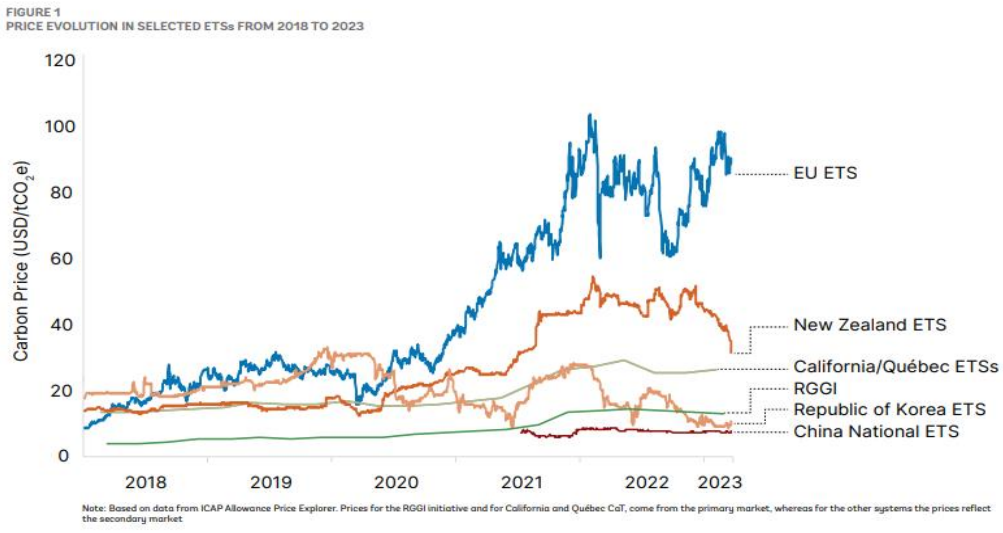

Figure 3. – The price of carbon units on world markets.

Table 1 GHG emissions of Uzbekistan for 2017, thousand tons of CO2-eq.[11].

Sector	Category	2017 GHG emissions (thousand tons of CO2-eq)	Share of source in total emissions, %
Energy	Production, processing, transportation of natural gas	47370,58	22,6
	Fuel combustion. Residential sector	19627,03	9,4
	Fuel combustion. Power generation	31933,28	15,2
	Fuel combustion. Commercial sector	6113,32	2,9
	Fuel combustion. Processing industry and construction	21214,68	10,1
	Road transport	11900,08	5,7
	Other modes of transport	3781,49	1,8
	Oil production and refining	1872,12	1,7
	Fuel combustion. Agriculture	54,72	0,0
	Railway transport	354,26	0,2
	Solid fuels	127,66	0,1
	Civil Aviation	58,46	<0,1
	Total by sector	**144407,83**	**76,3**
Industrial processes and uses products	Cement production	3173,36	1,5
	Ammonia production	2217,25	1,1
	Nitric acid production	1393,70	0,7
	Iron and steel production	908,31	0,4
	Lime production	239,30	0,1
	Zinc production	132,67	0,1
	Use of lubricants	84,21	<0,1
	Other uses of carbonates	42,88	<0,1
	Production of acrylonitrile and methanol	6,70	<0,1
	Refrigeration equipment	269,73	<0,1
	Total by sector	**8468,12**	**4,5**
Agriculture	Internal fermentation	19446,30	9,3
	Direct N2O emissions from managed soils	7948,09	3,8
	Manure management	3093,82	1,5
	Indirect N2O emissions from managed soils	2565,03	1,2
	Indirect N2O emissions from manure management	430,25	0,2
	Rice cultivation	168,80	0,1
	Total by sector	**33652,28**	**17,8**
Waste	Solid Waste Disposal	2170,97	1,0
	Wastewater treatment and discharge	508,53	0,3
	Total by sector	**2679,50**	**1,4**
Total	**Amount excluding LHDVZ**	**189207,60**	

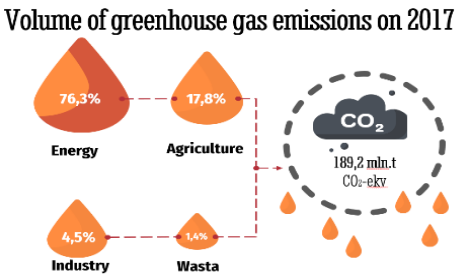

Figure 4

Review of the situation in Uzbekistan. As we instilled above, Uzbekistan has committed itself under the Paris Agreement to reduce the volume of GHGs by 35 percent compared to 2010 relative to GDP by 2030. The country has also signed up to the Global Methane Reduction Commitment, an initiative in which signatories agree to take voluntary actions to contribute to the collective effort to reduce global methane emissions by at least 30

percent by 2030. compared to 2020 levels. According to the republic's NDC report published by 2021, Uzbekistan's GHG emissions in 2017 amounted to 189 million tons of CO2-eq. As we can see in Table 1, the bulk of the amount falls on the energy sector. If we look at the energy sector by type of activity, the first place is taken by the extraction, processing and transportation of natural gas 47.37 million tons of CO2-eq. this is 22.6 percent of total emissions. In second and third place is the combustion of fuel in the production of electricity (15.2%) and the processing industry and construction (10.1%) [11]. In the category of extraction, processing and transportation of natural greenhouse gases, methane is emitted. Methane emissions can occur at all stages of the value chain, which consists of the following components:Extraction, transportation and storage, processing and sales. These emissions occur when natural gas is flared to reduce pressure under adverse conditions, natural gas released by a process or activity is intentionally released directly into the air, or methane is unintentionally released through leaks such as valves or flanges. [12]. The remaining greenhouse gas emissions from the energy sector mainly come from the combustion of fuels for power generation and other activities. As we know in Uzbekistan, 75 percent of electricity is produced in thermal power plants through the combustion of petroleum products such as natural gas, fuel oil and coal[13].In the industrial sector, in some cases other types of greenhouse gases may be emitted, but here too the main type of emissions is CO2, which is converted during the combustion of fuels for production and heating. In addition, in the industrial sector the energy efficiency indicator is very low due to the fact that most of the factories and equipment that remain from the times of the USSR consume a lot of energy. Emissions from the agricultural sector occur as a result of expanding agricultural land area, increasing livestock numbers and more intensive use of soil and fertilizers. Livestock are the largest source of direct emissions and the leading cause of land use change. Synthetic fertilizers are also a large contributor to direct agricultural emissions.

Proposal for the implementation of a national carbon trading system. The national carbon trading system should cover three main areas: (i) regulation of GHG emissions at the legislative level and incentives for enterprises to reduce GHG emissions; (ii) creating conditions for trading carbon units; (iii) ensuring transparency and accountability. To regulate emissions and encourage enterprises to reduce GHG emissions, the following reforms are necessary: development and adoption of the Law of the Republic of Uzbekistan on limiting greenhouse gas emissions. This Law will regulate GHG emissions into the atmosphere and serve as a legislative act for the republic. Based on this Law, a limit is established for each enterprise based on the line of activity and volume of production. Creation of a carbon registry and inventor to keep records of the exact amount of GHGs and the location of these emissions. The register and inventorare created in the form of a website and all information is publicly available to everyone. Implementation of a carbon tax for enterprises exceeding a given limit of GHG emissions to stimulate the modernization of outdated technologies and equipment.This mechanism serves as one component of the market-based carbon trading mechanism and proceeds from this tax are used to improve environmental quality and green projects.Implementation of a transboundary carbon regulation mechanism to protect the domestic market from imported goods that are not subject to a carbon tax. To create conditions for trading carbon credits, the following reforms are necessary: development and implementation of mechanisms for trading carbon credits: a) ITMO trading mechanism based on Article 6 of the Paris Agreement on climate change; b) Mechanism for trading VERs on voluntary markets; c) international agreements with developed countries on cooperation on joint reduction of GHGs, which makes it possible to attract investment and innovative technologies from developed countries.Creation of carbon markets for the free sale and purchase of carbon credits. Creation of a carbon credit trading platform and a green exchange for free pricing and sale

of carbon credits.To ensure transparency of the carbon trading system, the following reforms are necessary: Creation and implementation of a Measurement reporting and verification (MRV) system.

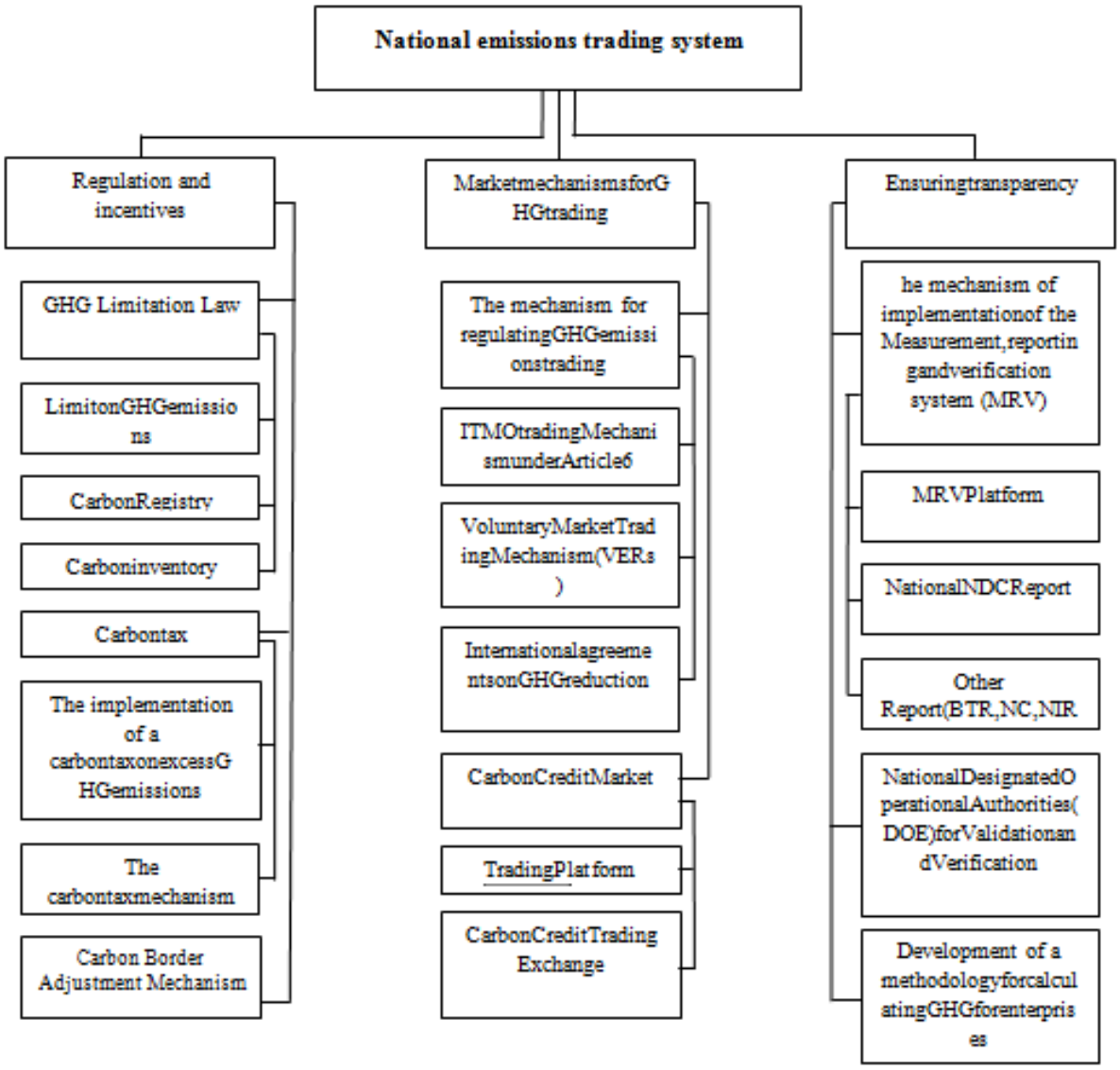

Figure5.–The pre-loan structure of the nationalETS.[Developedbytheauthor]

Creating an online MRV platform. This platform makes it possible to collect information on GHG emissions by sector, territorial section and for each enterprise. With the help of this online platform, information is processed and online monitoring of GHGs is conducted. In addition, this online platform serves as a reference for the preparation of reports such as Nationally determined contributions – NDC, National inventory report – NIR, National Communication – NC Biennial transparency report – BTR. Creation of Designated Operational Entities (DOE) for validation and verification of projects aimed at reducing GHG. Development and approval of methodological guidelines (instructions) for determining the volume of

greenhouse gas emissions indirectly generated from the combustion of energy resources, as well as calculating the volume of greenhouse gas emissions by business entities.

Conclusion.Based on the above information, it can be concluded that the Carbon market is a fast—growing financial market that emerged in the context of a low-carbon economy. The carbon market is expected to play an important role in international cooperation in response to global climate change. Based on the above information, it is assumed that prices for carbon units will increase year by year, Uzbekistan with its 189 million tons of CO2 eq. emissions has a great potential for emissions trading.This mechanism contributes to the decarbonization of the industrial and energy sectors of Uzbekistan.Given that decarbonization of industries requires funds and investments, this system provides an opportunity to easily solve this problem by producing carbon units sold in international markets. Improving the energy efficiency of enterprises in Uzbekistan by trading carbon units allows attracting innovative technologies from developed countries such as Japan and Korea.In addition, this system increases the competitiveness of goods and products produced in the republic, based on the requirements of the world markets.At the same time, this system makes a significant contribution to improving the environmental autonomy of the country.

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STRATEGIC VECTOR OF ECOTOURISM DEVELOPMENT IN UZBEKISTAN

Khamidova Zarina Amanullaevna[1]

ABSTRACT

This scientific article emphasizes the importance of ecotourism development for sustainable development of the economy of Uzbekistan, summarizes the conditions, modern trends, economic indicators. The author considered the problems of turning green tourism into a highly profitable sector of the economy, improving the development of the potential of green tourism in New Uzbekistan.

Keywords: *Tourism, Service, Green Tourism, Tourism Industry, Reserve, Resources, Protection.*

Introduction

Ecotourism is an important strategy for achieving environmental sustainability and local community development. However, its successful implementation in countries such as Uzbekistan requires overcoming a number of problems and challenges. Balanced use of natural resources, development of sustainable infrastructure and raising awareness are key aspects that need to be considered and addressed to ensure effective development of ecotourism. Only through the joint efforts of government agencies, local communities, tourism companies and the public can we ensure sustainable development of ecotourism that contributes to the conservation of nature and the well-being of local residents.

In our opinion, in modern conditions, the full implementation of green tourism in regions and rural areas is impossible without the formation and implementation of various new approaches in the field of green tourism, capable of satisfying ecotourism needs in qualitative and quantitative terms. The purpose of the study is to analyze the current state of green tourism development and the effective use of the ecotourism potential of Uzbekistan.

Analysis of literature on the topic

In Uzbekistan, research in the field of ecotourism began relatively recently. However, as a basis for its development in modern eco-climatic conditions, the impact of various crises on green tourism has not been deeply studied.

Various aspects of the trend, as well as the strategy for the development of ecological, natural tourism at the present stage, an analysis of current problems and achievements of ecological tourism, both in Uzbekistan and in some foreign countries, are considered by Tukhliev N.

The basics of ecological tourism development, development of protected natural areas are considered by Norchaev A.N.

Features of modern tourism, its impact on nature, rational use of natural resources and the role of tourism in nature conservation are considered in the monograph by KhamidovO.Kh.

[1] Head of Strategic Development and Planning Department At the Research Institute for the Study of Problems of Cultural Heritage Objects and Tourism Development under the Ministry of Tourism and Cultural Heritage of the Republic of Uzbekistan

The study by Usmonov S. and Mukhamedov N. examines the development of ecotourism in Uzbekistan, with an emphasis on the challenges and opportunities in the Aral Sea region.

Research methodology

Research in the field of ecotourism confirms its potential for nature conservation and development of local communities. However, for the successful implementation of ecotourism in Uzbekistan and other countries, it is necessary to take into account the recommendations and findings of foreign and domestic researchers and take measures to balance the development of ecotourism with environmental protection and improving the well-being of local communities.

The literature review revealed several key themes and findings.

First, sustainable development of ecotourism requires a balance between economic benefits and conservation of natural resources. Research emphasizes the need to develop and implement strategies and practices that contribute to the conservation of biodiversity, protect ecosystems and minimize the negative impact of tourism on the environment.

Second, the active participation of local people is a key factor in the success of ecotourism projects. Researchers emphasize the importance of involving local communities in decision-making, project development and implementation. Taking into account local needs, interests and cultural characteristics helps to create sustainable ecotourism models that benefit both local people and the environment.

Analysis and results

To achieve the objectives of the study, a mixed approach was used, combining qualitative and quantitative data collection methods. Qualitative data were obtained through field observations, including direct study of the natural environment, its condition and characteristics, as well as the interaction of local residents, tourists and representatives of organizations involved in ecotourism in the regions. Interviews were conducted to gain an in-depth understanding of ecotourism participants' opinions, preferences and expectations.

Analysis of statistical data indicates the current state of development of ecotourism in selected regions of Uzbekistan and its impact on the socio-economic sphere. There is a positive trend in the development of ecotourism in the Gissar Reserve, Kitab National Natural Park and in the Karshi steppe of the Kashkadara region. They are distinguished by the attractiveness of their natural resources, unique ecosystems and biodiversity.

The term "green economy" was first used in 1989 in the work "Green Economy Project", which focused on the economy of sustainable development. Subsequently, the phrases "green economy", "green industry", "green markets", "green employment" and other terms with the adjective "green" began to be widely used in international documents. Within the framework of a broad approach in the interpretation of "green" growth, the need for greening of virtually the entire economy and all socio-economic development is considered. A narrow approach implies the development of only those industries and activities that are directly related to the greening of the economy, the development of "green" markets at the global and national levels. In the context of a difficult economic situation in the world, it is necessary to support industries that create more jobs, increase investment, exports and currency inflow. Every dollar invested in this sector brings 3-4 times the income in the future, each new job creates 2 more jobs in other industries.

UNEP and the World Tourism Organization (UNWTO) believe that tourism in the context of the "green economy" is a tourism activity that fully takes into account the current and future economic, social and environmental impacts, as well as the satisfaction of the needs of consumers of services (tourists), industry and local communities. This is not a separate form of tourism - all types of tourism should become "green" and sustainable, namely, assume:

- Optimal use of environmental resources that are key elements for tourism development, maintaining key ecological processes and promoting the conservation of natural resources and biodiversity;
- Respect for the socio-cultural identity of local communities, assistance in preserving their cultural heritage and traditional values;
- Ensuring viable long-term economic activity that provides socio-economic equitably distributed benefits for all parties involved, including tourist satisfaction, stable employment and opportunities for income generation and social services to host communities.

Ecotourism is recognized worldwide as the most profitable, fashionable and "green" type of tourism. This fact is especially pleasing to countries with beautiful nature, landscape, climate - our country is proud of all this. But the fact itself requires additional investments, since the consumer is interested in the entire package of services: how and what he will get there, where and in what conditions he will live, what and what quality of services for a comfortable vacation are provided to him. Studying the existing potential from the consumer's point of view, creating the necessary infrastructure, developing ecotourism tourist routes are the main tasks for entrepreneurs planning to operate in the field of ecotourism

According to international experts, this area of the tourism industry is one of the most dynamically developing and popular areas in modern tourism. In Uzbekistan, ecotourism also has great potential. In this regard, NC "Uzbektourism" invites entrepreneurs to actively engage in the development of this tourism sector. Since environmental requirements are traditionally perceived as restrictions, compliance with which requires additional costs, awareness of the experience of implementing "green" technologies, the environmental and economic efficiency of "green" investments and the possibility of obtaining a double win becomes a factor in the development of the "green economy". In this regard, a significant role is given to international and national environmental certification systems, including both an assessment of the impact of enterprises and their products on the environment at all stages of the life cycle (environmental audit, environmental management), and the search for technologies and methods to reduce the environmental footprint they leave.

Examples include international systems of "green" standards in construction BREEAM, LEED, etc. In tourism, this is, first of all, the Global Sustainable Tourism Criteria (GSTC) - an international consensus on the minimum criteria that the tourism business must meet to ensure sustainable development. The international system of certification of accommodation facilities Travelife Sustainability System, the purpose of which is to promote "green" technologies in tourism. The English system of certification of enterprises in the tourism industry Green Tourism Grading, similar to the international systems BREEAM and LEED in construction and covering accommodation facilities of all types: cafes, restaurants, tourist information centers, tour operator structures. The international system of certification of beaches and marinas "Blue Flag" contains green requirements for sea tours and recreation on the sea coast. In addition to environmental certification systems, the introduction of "green" technologies in tourism is facilitated by the

development and implementation of a number of international programs, for example, Hotel Energy Solution, TourBench and SUTOUR. Participation in these programs allows tourism industry enterprises not only to comprehensively assess their own resource consumption (e.g. energy, water), but also to select effective technologies and measures that ensure a reduction in resource consumption and, accordingly, operating costs.

The report “Towards a green economy: Tourism”, which summarizes the accumulated experience of implementing “green” technologies, provides examples of fast and high payback of “green” investments (similar examples can be found in the cases of international certification systems).

For example, the payback of investments in increasing energy efficiency and saving resources, carried out by the luxury hotel group SixSenses at resorts in Thailand, ranges from 6 months to 10 years.

The implementation of an energy monitoring system costing USD 4,500 allows saving 10% of energy. A heat recovery system costing USD 9,000 provides savings of USD 7,500 annually, which corresponds to a payback period of 1.2 years. Efficient lighting, which required expenses of USD 8,500, saves USD 16,000, the payback is less than 6 months. Investments in the reservoir amounted to USD 36,000 and provided savings of USD 330,000 (payback period less than a month). Certification systems and international greening programs, promoting the dissemination of knowledge and best practices in greening various sectors and industries of the economy, stimulate the growth of demand from enterprises for green goods and technologies, ensuring the transition to "green" economic growth.

The investment factor for the development of a "green economy" is the availability of investment resources. By including a significant amount of "green" investments in the anti-crisis package, states stimulate "green" economic growth. On the other hand, the level of environmental friendliness of industries and enterprises increasingly affects the availability of investment resources for them. An illustration of this position is the use of special indices (GreenEconomyIndex) by large banks and stock exchange groups as benchmarks for institutional and individual investors.

The factors listed above determine the possibilities, necessity, depth and speed of "greening" the economy as a whole and its individual sectors, including tourism. At the same time, the tourism industry has a number of features that affect the processes of its greening.

This is, first of all, the dependence of the volume and quality of the tourist product on the volume and quality of natural and cultural capital, which determine the attractiveness of the destination for tourists. The degradation of natural resources, the destruction of natural monuments, the pollution of water bodies, the disruption of landscapes, and the reduction of biodiversity lead to a reduction or complete absence of tourist flow and, as a consequence, to the collapse of the economy, in which this sector was key.

The same dependence forms a conscious or unconscious interest of all stakeholders in tourism development in a given territory, which includes the population, in the long-term preservation and effective safe use of cultural and natural potential. The condition for the positive impact of this factor is the consistency of environmental and economic interests and actions of the government, business, population, development institutions, investors both in determining long-term priorities and development goals (strategies for "green" growth), and in implementing plans and programs to achieve them [6]. Attracting significant tourist flows, providing employment and income, simultaneously intensifies competition for the right to use limited natural resources (energy resources, land, water, assimilation potential of the environment, etc.) both between industries and types of activity, and within the tourism industry

NC "Uzbektourism" has formed a preliminary list of potential settlements for the development of ecotourism, in which it is possible to create guest houses, develop other infrastructure with their subsequent inclusion in tourist routes.

The development of ecotourism opens up great prospects for involving local residents in this sector of the economy and creating new jobs, since ecotourism can be professionally organized only using the special knowledge and skills possessed by the local population. In turn, the Uzbektourism company is ready to provide practical assistance in solving organizational issues related to the implementation of projects in the field of ecotourism. In particular, the Republican Scientific and Educational Consulting Center under the Uzbektourism National Company will organize training for the local population in receiving tourists, methods of preparing excursions, techniques for conducting them, foreign languages, etc. By the way, it is worth noting that the UN General Assembly at its 70th session proclaimed 2017 the International Year of Tourism. In a resolution on this matter, the Assembly delegates proposed that all states support tourism as one of the means of encouraging and accelerating sustainable development.

According to the UN, more than one billion people travel to other countries every year. Thanks to this, tourism has become the leading sector of the economy, accounting for 10% of global GDP and 6% of total world exports.

First of all, it should be said that the visa regime for visitors from other countries has been simplified. In particular, today visa-free entry has been established for citizens of 93 countries, an electronic entry visa for 56 countries, a five-day transit visa-free entry for 47 countries, and a simplified procedure for issuing tourist visas for 76 countries.

For citizens of China, the United States and Vietnam who have reached the age of 55 and are coming to our country for a period of no more than 30 days for tourist purposes, a visa-free entry regime has been introduced. New categories of visas for foreign citizens have also been introduced, such as Vatandosh, Studentvisa, Academicvisa, Medicalvisa and Pilgrimvisa.

In addition, a tourist police has been created to ensure the safety of guests of the country. And to create favorable conditions for recreation, the number of places in accommodation facilities has been increased to 142 thousand, 70 new tourist routes have been opened, and six private airlines have begun operating.

To ensure the development of the tourism sector, it is important to create and improve a system for training qualified personnel. Today, our country has higher education institutions specializing in this field. Every year, the number of students studying there increases, and the educational process is improved based on advanced foreign experience. As a result, qualified specialists are trained in accordance with international requirements, scientific research, fundamental, scientific and practical work in various areas.

The Amirsoy winter resort, the Afsonalarvodiysi, Zaamin and Charvak recreation areas have become international tourism hotspots that attract the attention of many foreign guests.

Travelers are especially attracted by tourist villages: they are interested in seeing with their own eyes the traditional way of life of local residents and their unique crafts. One of these is the village of Sentob in the Navoi region, located 120 kilometers from the center of the Nurata district and 180 kilometers from the regional center.

There is a beautiful lake, an ancient temple related to the Zoroastrian religion, a number of cultural heritage sites, ancient fortresses, petroglyphs. Tourists are also attracted by the national customs and

traditions of the residents. More and more people come to see the place where history and modernity merge.

Modern conditions in Sentob are also improving year after year so that tourists can relax in comfort, get acquainted with historical and natural monuments. Three hostels, 20 family guest houses have been built, 15 types of tourist services have been established. Last year, Sentob was included in the list of tourist villages of the World Tourism Organization. This event became a special recognition of the tourist potential of our country at the global level.

Favorable conditions are also being created for the development of all types of tourism business in the country. Subsidies are allocated for the construction of hotels and attracting international brands, increasing the flow of tourists.

Two tourist zones are being built in the Kashkadarya region.

1. The Shakhrisabz tourist center near the city of the same name. It is planned to create hotels, guest houses, health and shopping and entertainment facilities, as well as service complexes on an area of 240 hectares.

2. An area of 58.6 hectares is planned to be created in the Kamashinsky district. The Maidanak-vysokogorny tourist center will include a hotel and a sanatorium, a cable car, a ski resort and other tourist infrastructure facilities.

Foreign investors have begun construction of a ski resort on an area of 3,000 hectares between the villages of Gelon and Sarchashma in the Shakhrisabz district. A master plan is also being developed for the village of Miraki.

The complex, worth $300 million, will include three cable cars with a length of 8.6 km, three- and five-star hotels and other facilities. The first stage of the project is scheduled for completion at the end of 2026.

In addition, the city of Shakhrisabz was declared the tourism capital of 2024 by the Economic Cooperation Organization.

The President has identified a number of measures to develop tourism in this area. First of all, it is instructed to create a tourism cluster in the city of Shakhrisabz and the Shakhrisabz region. It is planned to expand to two lanes and repair the 33 km long Hisorak-Gelon and Hisorak-Sarchashma roads, as well as 30 km of the Chirakchi-Shurkuduk road, which will reduce the travel time from Samarkand to Shakhrisabz by one hour.

It is planned to allocate 240 billion soums for the repair of these roads, and 115 billion soums for the creation of resort infrastructure in the village of Gelon.

It is planned to launch three hydroelectric power plants with a capacity of 24 MW on the Oksu River, which passes through Gelon. As a result, there will be no problems with electricity in the tourism cluster, the report says. The Shakhrisabz Tourism College plans to train 100 specialists per year under the Swiss program. Similar projects will be implemented in 20 other districts with high tourism potential, such as Akhangaran, Urgut, Nurata, Yangikurgan, Pap, Chartak, Baysun, Saryasiya, Bakhmal, Fergana. Responsible persons have been instructed to develop a master plan with the involvement of foreign consultants.

Similar projects will be implemented in 20 other areas with high tourism potential, such as Akhangaran, Urgut, Nurata, Yangikurgan, Pap, Chartak, Baysun, Saryasiya, Bakhmal, Fergana. Responsible persons have been instructed to develop a master plan with the involvement of foreign consultants.

As part of the Strategy for the Integrated Development of Tourism until 2030, priority will be given to the creation of a modern tourism and transport infrastructure. New high-speed roads and railways will be built, the fleet will be doubled, and the number of flights will be quadrupled. 30 large tourism clusters will be created in large cities and places frequently visited by tourists.

According to the national program "Pearls of Ancient History", the number of cultural heritage sites attractive to tourists will be increased from 800 to 2.5 thousand, 745 cultural heritage sites will be restored, and "open-air museums" will be created in 20 architectural monuments.

In the context of growing problems of climate change, the adoption of an International Action Programme for the Development of Green Tourism is becoming relevant.

The country aims to host 9 million tourists. This ambitious plan is intended to continue the positive dynamics seen in previous years.

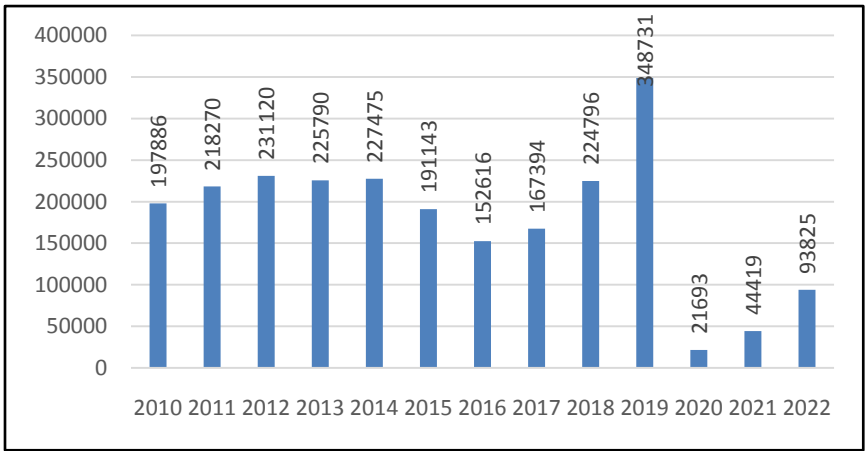

Figure 1. Number of tourists within the country, people[1]

Last year, 2023, Uzbekistan attracted 6.3 million foreign visitors, which confirms the steady interest in the country's tourism opportunities. In addition, domestic tourism in Uzbekistan is also on an upward trajectory, reaching 12 million Uzbeks traveling within the country.

Conclusions and suggestions

The plans for 2024 demonstrate Uzbekistan's desire to further develop the tourism industry and create a favorable environment for attracting both foreign and domestic visitors. The implementation of the planned plans involves additional investments in tourism infrastructure and marketing campaigns to draw attention to the richness of Uzbekistan's cultural and natural heritage. The study identified the following aspects for the development of ecotourism in the country:

[1] Compiled by the author based on URL:https://stat.uz

1. As practical steps, it is necessary to establish the nomination "Best City for the Implementation of "Green" Tourism" within the framework of UNWTO, as well as create a Global Laboratory of "Green" Tourism Startups based on the Central Asian University of Environment and Climate Change and the International University of Tourism and Cultural Heritage "Silk Road" in Samarkand.

2. In order to further improve conditions for travelers with disabilities and develop inclusive tourism infrastructure, it is necessary to reconstruct recreational areas and hotels.

3. Create a platform for exchanging the most advanced experience in preserving historical monuments.

4. Attracting talented youth to generate new ideas and projects for the development of tourism in Uzbekistan.

The ecotourism project in Uzbekistan represents a unique opportunity to achieve balanced development, ensuring the well-being of the local population and preserving the rich natural and cultural heritage of the country. The results of the implementation of ecotourism projects in Uzbekistan are an important signal for the development of sustainable tourism in the country.

The increase in environmental and economic results, as well as other expected results, confirms Uzbekistan's desire to balance the conservation of nature and culture and the creation of a favorable environment for the development of ecotourism. The implementation of ecotourism projects in Uzbekistan will contribute to the preservation of the environment and the development of the local population, and will also provide tourists with the opportunity to immerse themselves in the unique natural and cultural atmospheres of the country. These projects reflect Uzbekistan's desire for sustainable tourism development that meets the needs of modern travelers and contributes to the preservation of values for future generations.

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KEY ASPECTS OF SUSTAINABLE DEVELOPMENT OF TOURISM IN UZBEKISTAN

Golisheva Elena Vyacheslavovna[1]

ABSTRACT

The article discusses the main aspects of the strategy for the development of tourism in Uzbekistan. The author highlights the significant differences between travel companies and other areas of activity. The problems and prospects for the development of the country's tourism industry have also been extensively studied.

Keywords:*Tourism, Tourist, Service, Industry, Business, Company, Strategy.*

Introduction

The process of globalization contributes not only to the expansion of integration opportunities, but also to the deepening differentiation of countries by income level, the emergence of threats that negatively affect the systems of international communications, including the development of international tourism. The problem of tourist exchange is particularly relevant due to the fact that tourism is a type of activity that directly affects not only the internal components of the development of individual countries, their socio-economic, cultural, educational spheres of activity, but also the state of international economic, scientific, technical, humanitarian relations.

Due to the fact that tourism covers a wide range of services and goes beyond the traditional concept of it as a phenomenon associated exclusively with recreation, the effect of it should be considered from the point of view of its influence on various spheres of life of states, their regions, and individual categories population.

Due to the fact that tourism has become one of the leading sectors of the world economy, Uzbekistan pays special attention to the modernization of the tourism industry, the development and improvement of the regulatory framework for the sustainable development of the industry, and the organization of services for foreign guests in accordance with international standards.

Analysis of literature on the topic

The concept of developing a tourist destination, according to F. Kotler, "requires the territory to develop a systematic and long-term marketing strategy aimed at cultivating and improving the inherent and potential properties of the area or region. The central priority in creating such a strategy is to determine the specific target group to which the territory should direct its resources."

A.M. Gudratli positively assessed the impact of tourism on the country's economy, increasing the national income of the tourism sector; creation of new jobs; development of all sectors related to the production of tourist services; development of social and industrial infrastructure in tourist centers; activation

[1] PhD, senior researcher, director of the Research Institute for Tourism Development under the Committee on Tourism of the Republic of Uzbekistan

of the activities of folk crafts and cultural centers; ensuring an increase in the standard of living of the population; states that it will help increase foreign exchange earnings

According to A.P. Pankrukhin, the strategy ensures the transition of the subject to more attractive market segments and an increase in its importance and competitiveness in these segments.

P.M. Emphasizing that tourism has not only positive, but also negative socio-economic effects, Vukadinovich highlights the following negative effects of tourism: economic dependence on tourism; increase in the price of everyday goods and services for the local population; dominance of multinational companies in the tourism market; the sensitivity of work cycles and changes in attitudes to work; damage to national traditions and values.

Research methodology

The methodology used by this study was based on the study and analysis of the literature on the topic. We used the method of integrated literature review. In the course of the research, the previous and currently conducted studies on increasing the share of the tourism sector in the economy of the republic were studied. Lectures, conference materials, Internet publications and magazines, as well as new literature on the topic and prospective project data were studied, and methods such as analysis, synthesis, critical thinking, and generalization were used.

Analysis and results

The tourism industry in most countries is represented by numerous business structures. They are created and operate on the basis of national legislation and are required to strictly comply with the standards, requirements, and conditions established for them.

It should be emphasized that there are significant differences in the activities of travel agencies related to the volume and nature of operations, place in the market, specialization of activities and other market conditions.

With the modern development of needs and the presence of numerous desires of tourists, not even the largest travel agency can cover all existing market segments and niches with its activities.

In practice, each travel agency chooses one or more of the most accessible and profitable segments of market demand, sets prices and uses its own channels for promoting and selling tour packages. Thus, a segmentation of travel agencies arises depending on demographic, socio-economic factors.

Travel agencies act as retailers of travel services for personal, non-commercial consumption by their fellow citizens and foreign travelers. Travel agencies play an important role in the sale of tourism products, as well as other services: transportation, theatrical and entertainment events.

Travel agencies operate in accordance with the legislation in force in different countries and are registered as legal entities and individuals. They operate in small markets and have little turnover; they are highly dependent on market conditions and the policy of the tour operator.

Tourism today is a sphere of the socio-economic complex, which in many countries has turned into a rapidly developing industry. Currently, every 7th job in the world is in the tourism business. According to WTO forecasts, by 2020 the number of international tourist arrivals will be 1.6 billion, i.e., 3 times higher than in 2000. Daily tourist spending, excluding air travel, will grow to $5 billion per day.

Now there are two trends in tourism: exposure to external economic and political factors and the ability to quickly restore its volumes in an unfavorable environment. Although stability in global financial markets has led to some changes in tourists' holiday habits (late bookings have increased and holiday spending has decreased), it is fair to conclude that tourism has become a deeply ingrained part of the culture of the late 20th century.

In recent years, the role of digitalization has increased in the tourism industry. If travel companies now want to maintain their competitiveness, they must actively use chatbots, instant messengers, take into account the share of mobile traffic and work with social networks. And these tools have to be juggled at various phases of the life cycle of a tourism service.

Tourism is a multifaceted industry with both economic and socio-cultural significance. This sector is the third most profitable in the world. Another important aspect is that it allows you to create more jobs at a lower cost.

In our country, this area is consistently developing.

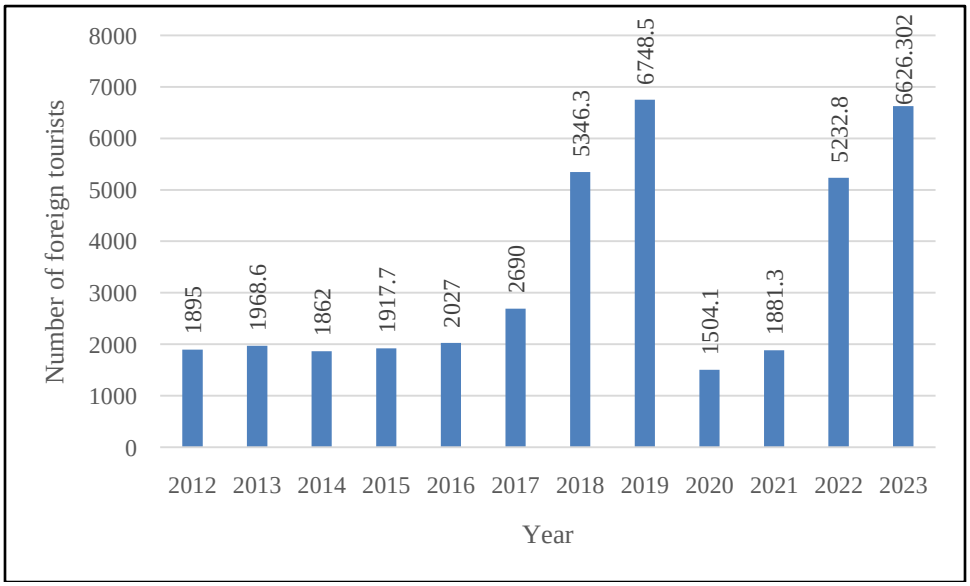

Figure 1. Number of foreign tourists[1]

In particular, the number of foreign tourists visiting our country in 2022 increased 3 times compared to 2021. The industry's exports amounted to $1 billion 600 million. More than 11 million people traveled through domestic tourism programs. As a result of the creation of a new tourist center in Samarkand, the city has the opportunity to attract an additional 2 million tourists to the city. Uzbekistan was visited by 5.2 million people in 2022. Compared to 2021, the number of tourists increased by 3.4 million people, which is an increase of more than 2.8 times.

[1] Compiled by the author based on URL:https://stat.uz

The tourism potential of our country is far from exhausted. There are many who want to visit Uzbekistan. However, there is little content about places that may be of interest to tourists, and there are not enough offers that can encourage tourists to stay in our country for 4-5 days. There are problems with purchasing plane and train tickets several months in advance.

The largest group of people indicating tourism as the purpose of their visit came from Kazakhstan. In total, more than 1.5 million tourists came from the neighboring state.

Below are more detailed statistics on the number of incoming foreign citizens who indicated the purpose of their visit was tourism:

Kazakhstan - 1551.1 thousand people;

Tajikistan - 1447.8 thousand people;

Kyrgyzstan - 1356.9 thousand people;

Russia – 567.7 thousand people;

Türkiye - 75.6 thousand people;

South Korea – 19.9 thousand people;

Germany - 17.7 thousand people;

India - 16.8 thousand people;

USA – 13.1 thousand people;

France - 11 thousand people;

Great Britain – 10.5 thousand people;

Azerbaijan – 10.4 thousand people;

Italy - 8.8 thousand people;

Spain - 6.3 thousand people;

China - 5.4 thousand people.

It is planned to turn Samarkand into a tourist center of Central Asia. Among other things, Tashkent is becoming one of the most popular medical tourism destinations.

The number of tours sold increases every year. The indicator of transportability and financial accessibility of trips indicates the standard of living of the population.

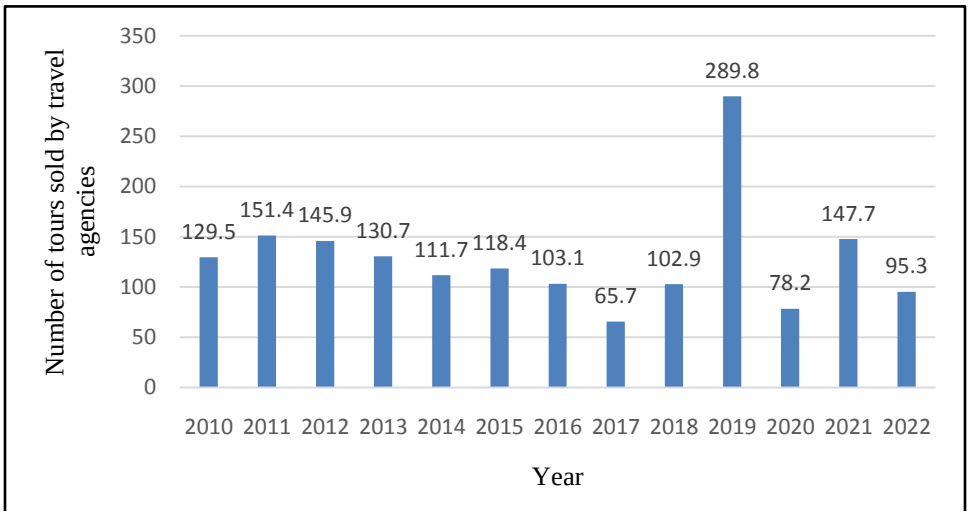

Figure 2. Number of tours sold by travel agencies[1]

Moreover, most of the tours sold were from Tashkent. In January-August 2022, a total of 3,308.6 thousand citizens of the Republic of Uzbekistan left the republic for tourism purposes. When comparing this indicator with the corresponding period of 2021 (1,227.7 thousand people in 2021), we can see an increase of 2,080.8 thousand people, or 2.7 times. The distribution of this indicator by country is as follows:

CIS countries – 2,888.6 thousand people

Turkey – 206.8 thousand people

UAE – 73.7 thousand people

Saudi Arabia – 50.2 thousand people

Egypt – 27.1 thousand people

South Korea – 13.3 thousand people

USA – 10.2 thousand people

India – 6.7 thousand people

Georgia – 6.4 thousand people

Kuwait – 6.3 thousand people

Germany – 3.7 thousand people

Latvia – 3.0 thousand people

Great Britain – 2.9 thousand people

[1] Compiled by the author based on URL:https://stat.uz

In the context of the transition of the Republic of Uzbekistan to market relations, its economic position in the world economy has changed. This was facilitated by institutional and structural changes aimed at creating an open market economy.

The main goal of Uzbekistan on the way to it is to increase the efficiency of foreign economic relations to the level of developed industrial countries, the production and export of finished high-tech products, and the increase in the competitiveness of domestic goods in both domestic and foreign markets. Much has been done towards achieving this goal. For example, at the end of 2022, the gross domestic product (GDP) of the Republic of Uzbekistan at current prices amounted to 888.3 trillion. soum and, compared to 2021, increased in real terms by 5.7%.

The concept for the development of the tourism sector in the Republic of Uzbekistan for 2019 - 2025 consolidates the vision and main priorities of the state for the further development of a competitive tourism industry. The goal of implementing the Concept is to transform tourism into a strategic sector of the national economy and achieve target indicators by diversifying it and improving the quality of tourism services, improving tourism infrastructure, including by attracting foreign investment and conducting effective advertising and marketing work.

Goal 58 of the Uzbekistan 2030 Strategy provides for the following activities:

Bringing the number of foreign tourists to 15 million, domestic tourists to 25 million, tourists coming for pilgrimage tourism to 3 million.

Creation of 30 large tourist clusters in the republic, at least doubling the number of guest places, construction of 25 cable cars in mountainous areas, increasing the number of tourist mahallas to 175.

Bringing the export of tourism services to $5 billion, medical and educational tourism to $1.5 billion per year.

Introduction of the “Tax free” system at all international airports for products purchased and processed in the republic by foreign tourists.

Development of the national program “Pearls of Ancient History” and restoration of cultural heritage objects within its framework, creation of “open-air museums” on the territory of monuments.

Further encourage the creation of companies providing intercity bus routes throughout the country.

Creation of more than 1,000 electric charging stations, food and recreation centers, trade and services.

Goal 68 indicates the development of ecotourism, mountain, hunting and safari tourism in forestry areas and national natural parks, in mountainous and steppe areas, as well as protected areas of water bodies.

Through the development of the necessary infrastructure and the successful promotion of the republican tourism potential in world markets for 2021-2025, the goal is to increase the share of tourism in the country’s GDP to 5%, as well as to attract more than 9 million tourists by the end of 2025, including 2 million person from far abroad.

During the video conference on June 3, 2024, measures were noted to improve tourism infrastructure in the regions and increase the flow of foreign tourists.

In a difficult economic situation in the world, it is necessary to support industries that create more jobs, increase investment and exports. The tourism sector has such potential. Every dollar invested in this sector generates 3-4x returns in the future. Each new job creates 2 more jobs in other industries.

Our country has many historical, cultural sites and picturesque corners. Tourist complexes and resorts have been created on their basis. The procedures for running a tourism business have been simplified. To ensure the safety of tourists, a tourist police has been created.

Last October in Samarkand, within the framework of the World Tourism Organization forum, investment agreements worth $2 billion 300 million were reached. Among them are many projects aimed at developing tourism infrastructure and creating new facilities.

In particular, foreign investors began construction of a ski complex on an area of 3 thousand hectares between the villages of Gelon and Sarchashma in the Shakhrisabz region. A master plan for the village of Miraki is also being developed.

This area is remarkable both for its history and nature. In addition, the city of Shakhrisabz was declared the tourism capital of 2024 by the Economic Cooperation Organization.

Therefore, a number of measures have been identified to develop tourism in the area. First of all, a tourism cluster will be created in the city of Shakhrisabz and the Shakhrisabz region. The Khisorak-Gelon and Khisorak-Sarchashma roads, 33 kilometers long, will be expanded and repaired. The Chirakchi-Shurkuduk highway will be repaired, which will reduce travel time from Samarkand to Shakhrisabz.

Three hydroelectric power plants with a capacity of 24 megawatts will be launched on the Oxu River, which passes through Gelon. As a result, there will be no electricity problems in the tourism cluster. At the Shakhrisabz Tourism College, the Swiss program will train 100 specialists per year.

It was noted that similar work can be organized in 20 other areas with high tourism potential, such as Akhangaran, Urgut, Nurata, Yangikurgan, Pap, Chartak, Baysun, Saryasiya, Bakhmal, Fergana. Responsible persons were instructed to develop a master plan with the involvement of foreign consultants.

As you know, the international ethno-festival “Baisun Spring” was recently held. A four-star hotel, an amphitheater and yurts worth $6 million were built in the Bibishirin mahalla. Entertainment shows were held. As a result, the number of tourists to the Surkhandarya region increased 4 times.

The interest of young people in extreme tourism is growing every year. The task has been set to adopt a program for the development of this area.

In summer, the demand for water parks and swimming pools naturally increases. As part of the allocated funds, swimming pools are being built in hotels. But in the regions there are no modern water parks that would attract tourists.

Tourism opportunities around natural lakes are also not used. For example, on the shores of lakes Sechankul and Achinkul in the Mirishkor region there is not a single place for recreation. The Aidar-Arnasay lake system is very convenient for fishing and ecotourism.

Based on this, it was decided to auction land for the construction of water parks and projects on the shores of lakes.

Since the pandemic, demand for medical and wellness tourism has increased. More than 60 thousand foreign tourists were treated in sanatoriums and medical institutions in our country last year. Over the past five years, the number of private clinics has increased, but only two of them have an international certificate.

The reason cited is the lack of a holistic approach to the integrated development of medicine and health tourism. The export of medical tourism services alone can generate $300 million a year.

In this regard, the launch of the “Medical Hospitality” program was announced based on the experience of South Korea, Turkey and India.

From now on, the costs of private clinics to undergo international certification and participate in foreign exhibitions will be covered from the budget. Foreign patients visiting clinics will receive a refund of value added tax. Doctors traveling abroad to provide advertising and diagnostic services will be compensated for travel and living expenses.

Therefore, it is advisable to carry out international certification of hospitals and sanatoriums, as well as attract qualified managers.

Today it is important to establish permanent and specific dates for traditional festivals and further simplify border crossings.

Another problem hampering the development of tourism is related to transport. Abroad, tour operators buy tickets at least six months in advance, so package tours are cheaper. In our country, plane and train tickets are difficult to get; they cannot be found one or two months before the trip.

It is necessary to organize a global advertising campaign demonstrating the full tourism potential of our country.

The study determined that every extra day tourists spend in Uzbekistan increases annual tourism exports by $300 million.

For example, foreign tourists visit Khorezm 2 times less often than Bukhara and Samarkand. However, Khorezm has every opportunity for tourists to stay in the region for 3-4 days.

Or last year, 31 districts and 143 mahallas were specialized in tourism, and a special tax regime was introduced in them. About 4 thousand enterprises took advantage of these benefits, their turnover increased by 1.5 times.

There is a lack of interesting programs and promotion to further increase the length of stay of tourists. Therefore, at the meeting it was decided that 11 higher educational institutions will help strengthen these two areas of the industry’s work. They will collect information and generate content about the history, monuments and attractions of 31 districts and 143 tourist mahallas. On this basis, tourist packages will be developed in 12 languages. Workers at tourism and service facilities will undergo training at universities.

Conclusions and suggestions

A competition will be held to create content dedicated to the national tourism brand. International gastronomic festivals will be organized this year in Tashkent, and next year in Khiva, where Uzbek cuisine, numbering more than 300 national dishes, will be promoted. It was instructed to improve the system for issuing electronic visas and launch its mobile application.

Social networks will be widely used in the advertising campaign along with television. Information tours will be organized for bloggers with a large audience.

In conclusion, I would also like to note that in order to help strengthen the modern highly efficient and competitive tourism complex, expand opportunities to meet the needs of tourists due to the high quality and diversity of the line of tourism products in the regions of Uzbekistan and intensify its promotion to foreign consumer markets, it is recommended to carry out the following measures:

- Development of a tourism model based on the potential of the regions, combining the traditions of Uzbek hospitality and Western standards of service;
- Comprehensive development of tourism based on supporting entrepreneurship and choosing optimal methods of state regulation of the industry in the regions;
- Formation of the image of Uzbekistan as an attractive tourist country;
- Ensuring the creation of new jobs in the regions, a sustainable influx of foreign currency into the country's economy, the development of related sectors of the economy, and an increase in the share of tourism in the country's GDP;
- Increasing investment in human capital;
- Preservation of natural and cultural resources of the regions for their use both now and in the future;
- Solving the problems of targeted social tourism, its accessibility for low-income groups of the population;
- Stimulation of inbound and domestic tourism;
- Creation of an effective information network as a determining factor in the development of a common political line and strategy for the development of tourism in the regions;
- Ensuring complementarity between the multiple elements of the tourism sector;
- Creating conditions for the multi-purpose use of tourism infrastructure;
- Regulation of advertising, information and personnel support;
- Optimization of economic, environmental and social benefits from tourism with the distribution of these benefits within society, minimizing potential problems associated with the formation and functioning of the tourism industry;
- Coordination of the activities of the public and private sectors in the development of tourism

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THE PROBLEMS OF FEMALE UNEMPLOYMENT IN THE REPUBLIC OF UZBEKISTAN ARE PROMISING DIRECTIONS FOR REDUCING UNEMPLOYMENT AMONG RURAL WOMEN

XoliqovSulaymonO'tkirug'li[1]

ABSTRACT

The article highlights the persistent issue of unemployment among rural women in the era of a market economy, portraying it as an unresolved socio-economic challenge. Typically, unemployment signifies a segment of the population without reliable income sources and lacking stable employment opportunities. The economic concept of unemployment is elaborately outlined in the legal documents of the Republic of Uzbekistan. In addressing this pressing concern, the authors of the article enumerate key measures aimed at alleviating the high unemployment rate among rural women.

Key words:*Female unemployment, Rural Women, Labor market, Job Opportunities, Skills Training, Empowerment Programs, Economic Development, Gender Equality, Vocational Training.*

INTRODUCTION

Currently, over 60% of the population in Republic of Uzbekistan who are not participating in socially beneficial work reside in rural regions, with half of them being women. Throughout history, women have not only been the nurturers and caretakers of the family but also significant contributors to societal governance mechanisms.

Data from 2023 reveal that women constituted 44.1% of the total employed workforce in the Uzbekistan economy. However, the breakdown of employment by sector demonstrates a noticeable gender disparity. Women are predominantly employed in sectors such as healthcare, physical education, and social welfare institutions (75.6%), educational, cultural, artistic, scientific, and research establishments (72.5%), with over 40% of women employed in industries (43.5%) and agriculture (42.5%).

In our perspective, it is deemed inappropriate to engage women in industries that involve strenuous physical labor. Instead, it is recommended to utilize their skills in sectors like commerce, hospitality, domestic duties, scientific endeavors, and other equivalent fields. However, the issue of female unemployment presents unique challenges: it tends to be more prolonged compared to male unemployment, particularly affecting socially vulnerable groups such as women with several children or those caring for young and underage children. Unemployed women often possess high levels of education and qualifications, exhibit strong motivation for work, and aspire for increased mobility in the labor market.

Women encounter difficulties in job hunting and securing employment due to career interruptions caused by certain family-related situations like marriage, pregnancy, childbirth, sick leave, and other similar circumstances. These interruptions can sometimes impede the optimal execution of professional responsibilities and may lead to a decline in skill levels during these periods. Many contemporary employers are aware of these challenges and may be hesitant to hire specific categories of women due to these concerns.

[1]PhD student at Tashkent State Agrarian University.

LITERATURE REVIEW

Many authors have studied the problems of combining different roles of women in society, the labor market, and the family in different periods of socio-economic development: S. G. Aivazova [1], L. V. Babaeva [2], E. S. Balabanova [3], A. P. Bagirova and N. D. Blednova, T. K. Rostovskaya and O. V. Kuchmaeva, S. I. Golod, G. M. Karakhanova, O. A. Paryagina, I. V. Rodina, O. B. Savinskaya, G. G. Sillaste, and others[4].

More specifically, the study of women in the labor market, as well as in entrepreneurship, is devoted to the works of such authors as I. V. Geleta, M. Gritsyuk, M. V. Ivantsova, O. Kolesnikova, E. B. Mezentseva, S. Y. Roshchin, L. S. Rzhanitsina, G. B. Kosharnaya, N. V. Skinder, and others.

The works of uzbek economists, including A.V. Vakhobov, G.X. Abdurakhmanov, H.P. Abulkasimov, P.Z. Gashimov, and Abdullaeva, have made significant contributions to analyzing the theoretical and conceptual foundations of the social sphere economy and social protection systems. Their research encompasses areas such as the financing of the social sector, population's living standards, and mechanisms and methodologies for supporting the population in the country [6].

Furthermore, scholars like M.A. Hakimova, M.H. Ganiev, and B.B. Bakhtiyarov have conducted extensive studies on the financing of the social sector, analysis of living standards, development and optimization of support mechanisms, and provided in-depth analysis of population support systems within the realm of social economy and social protection [7].

RESEARCH METHODOLOGY

The methods of traditional analysis and generalization of statistical indicators, scientific and periodical literature, as well as methods of secondary analysis of various sociological surveys on the topic under study were used in writing the article. The methods of comparison were used to identify the most significant features of the problem under study in the modern conditions of the region's development.

ANALYSISANDRESULTS

The article portrays unemployment among rural women in the context of a market economy as a persisting socio-economic challenge in Uzbekistan. According to Article 60 of the Labor Code of Uzbekistan, an unemployed person is defined as an able-bodied individual ready to work, undergo training, or retraining but lacks employment or earnings, and is registered as a job seeker.

Various forms of female unemployment prevalent in rural areas are highlighted, including hidden, seasonal, technological, and structural unemployment. These forms are exacerbated by challenges such as combining family responsibilities with work, slow labor force renewal, outdated skills, and qualifications not aligning with job requirements and technological advancements.

Hidden unemployment is particularly common in rural areas and poses a threat to the number of individuals engaged in productive work. Factors contributing to the rise in female unemployment in rural regions include limited family support, unskilled labor resources, and women's involvement in manual labor.

Experts in employment highlight a heightened demand for such programs, especially among young women with young children. These initiatives assist them in preserving a certain professional standard, sustaining work motivation, reclaiming lost skills, and getting ready for re-entry into the workforce, such as after a period of maternity leave.It is essential to consider specific aspects in this endeavor, such as

adapting training practices to modern conditions (e.g., transitioning to online learning) and aligning with the requirements of the labor market and the preferences of women themselves.

Absolutely, the stable progress of society fundamentally relies on the continuous nurturing and preservation of vital social pillars such as "motherhood" and the "family," where women play an indispensable role as the cornerstone of these institutions. In the intricate tapestry of contemporary society, women stand out as a distinct socio-demographic group, wielding significant social influence and possessing vast untapped labor potential within the dynamic framework of modern civilization. However, amidst their multifaceted responsibilities, women, especially those who are mothers juggling educational pursuits and navigating through a myriad of social and professional roles, often encounter a plethora of challenges in the complex landscape of today's world.

In light of these challenges, it becomes imperative to establish and enrich conducive environments that promote the seamless integration of women's labor commitments, reproductive functions, and familial obligations. By fostering a supportive ecosystem that empowers women to efficiently harmonize these diverse roles, societies can unlock the full potential of women as they navigate and contribute meaningfully across various spheres of life. This holistic approach not only empowers women to excel in their chosen paths but also nurtures their overall well-being, promoting a more equitable and thriving society for all.

Several researchers have pointed out that women are often placed in a distinct category requiring additional social support due to their role in reproduction, which is fundamental for maintaining the continuity of families and, consequently, the sustainability of society. A woman's ability to bear children has historically influenced her social standing and her opportunities to select a profession and pursue a career path. This is one of the reasons why, all else being equal, women may face greater challenges in securing suitable employment compared to men.Moreover, women typically carry a heavier burden in terms of household and caregiving responsibilities, which limits their available time for self-improvement and professional development. Consequently, women tend to exhibit lower levels of competitiveness and mobility in the labor market when compared to men, despite similar qualifications and capabilities.

To address these challenges, the article suggests creating conducive working conditions for women with multiple children, including flexible and shortened working hours. Opportunities for women's employment in rural areas are highlighted, such as producing agricultural goods, offering consumer services, engaging in construction and repair works, and providing non-material services like childcare, tutoring, and medical assistance. Efforts to tap into women's labor potential in these sectors could help alleviate rural female unemployment and enhance overall economic participation.

In rural regions, a significant number of women are employed in sectors like agriculture, education, and healthcare, as illustrated in Table 1. However, employment opportunities in other economic sectors are relatively scarce in rural areas compared to urban settings. Consequently, rural women frequently find themselves constrained to pursue professional pathways that offer lower wages, mainly focusing on operational roles with limited prospects for career advancement.

The engagement of women in agricultural activities reflects a distinct gender-based division of labor, with farming typically designated as a "male domain" and animal husbandry as a "female domain." Furthermore, the operation and supervision of agricultural machinery are often viewed as more prestigious roles for men in contrast to the traditional and physically demanding tasks associated with livestock farming, which entails manual labor due to minimal mechanization.

Table-1 Distribution of employed women by main types of economic activities, in % of the total

Indicators	2020 year	2021 year	2022 year	2023 year	2024 year
Total	100	100	100	100	100
Agriculture, forestryandfishery	27,8	27,3	27,1	25,9	26,6
Industry	13,7	14,3	14,3	13,6	14,2
Education	13,6	15,3	15,8	16,1	16,3
Trade	12,8	13,2	12,7	13,5	12,9
Health care and social services	8,7	8,4	9,3	9,0	9,1
Accommodationandfoodservices	2,8	2,9	2,9	3,1	3,1
Financialandinsuranceactivities	0,5	0,5	0,5	0,5	0,5
Other types of economic activities	20,1	18,1	17,4	18,3	17,3

Based on findings from surveys, it is evident that certain groups of women prefer not to utilize employment services when seeking job opportunities; however, they are open to utilizing training services provided by employment agencies if it assists them in securing employment. Hence, it is crucial to focus on supporting specific categories of women, particularly those facing challenges in employment and social integration in the job market, by governmental entities. Additionally, creating an environment conducive to their professional growth while balancing familial responsibilities is essential.

It is crucial to highlight the importance of the government not only developing more contemporary forms of support for women in the realm of employment but also fostering a positive image of men as fathers in society. By challenging traditional gender role stereotypes within families, this approach aims to reshape the perception of women in the workforce, moving away from associations solely with parental leave and frequent sick days, and offering women opportunities to pursue their career aspirations.

For the effective execution of this strategy, it is recommended to regularly monitor the status of women in society and the labor market. Establishing a "hotline" to address a variety of issues and pertinent concerns for diverse groups of women, alongside providing professional counseling on legal, social, labor, and psychological aspects of work, can facilitate a comprehensive analysis of the actual situation of women in the regional labor market. This approach can help identify existing challenges and devise innovative solutions to address them.

Significantly, employment centers and the employment service of Uzbekistan and the region play a vital role in implementing initiatives to combat female unemployment within the regional labor market. These entities undertake essential functions concerning diverse categories of the unemployed, with a specific focus on women. Their responsibilities include facilitating job searches, disseminating labor market information, organizing professional guidance sessions for individuals to select suitable fields of work or professions, facilitating employment, providing vocational training, offering psychological support, delivering retraining and advanced training programs for the unemployed, disbursing social benefits to officially recognized unemployed individuals, and more.

Moreover, modern employment centers offer a wide array of advisory services and activities such as providing insights on in-demand professions, contemporary job search methods, crafting compelling resumes, mastering successful interview techniques, effective communication and business etiquette rules.

In the course of the job creation and employment program implemented in the current year, a total of 833.4 thousand jobs were generated, with over 488 thousand new positions specifically in rural regions. Job creation sources included 44.8 thousand roles established through enterprise commissioning, expansion, and capacity reconstruction, 282.8 thousand through new small businesses and micro-enterprises, 90.6 thousand through individual entrepreneurship, 11.5 thousand through reviving small dormant enterprises, 181.8 thousand through various forms of remote work, 57.3 thousand through infrastructure development, and 107.4 thousand through agricultural ventures. This economic upsurge resulted in a 2.5 percent rise in overall employment, a 17.3 percent increase in wages, a 27.8 percent escalation in average pensions, and a 15.9 percent growth in real per capita income.

As an example, the specialists Employment Center offer social adaptation and psychological support services to women who are unemployed. They assist in enhancing the psychological well-being of these women, developing communication skills, improving information processing abilities, and teaching specific job search techniques. This includes helping them create personalized job search plans and providing guidance on their implementation. Notably, over 46% of surveyed unemployed women who approached the employment service expressed a desire for psychological counseling and support. Such psychological support aids women in boosting their self-esteem, enhancing labor mobility, adapting better to their circumstances, and consequently, increasing their competitiveness in the job market.

It's worth highlighting that many women surveyed expressed a preference for flexible work arrangements. This underscores the importance of expanding opportunities for temporary employment, freelancing, part-time positions, and other flexible work options. Unlike starting a business, these options do not demand extensive time and financial investments, offering a way to earn income while balancing family and professional responsibilities.

To cater to this need, employment services provide access to a range of public (temporary) work opportunities such as landscaping, aiding elderly individuals, supporting disabled individuals, working in children's camps, seasonal agricultural roles, and more. Both regional employers and various non-profit organizations should actively engage in providing these opportunities for women seeking temporary employment.

To address rural women's unemployment rates effectively, several key steps need to be taken, including:

1. Phased establishment of a socially conscious job market in rural areas to define priorities for developing the employment service system.

2. Encouragement of private entrepreneurs who generate additional job opportunities in rural settings.

3. Establishment of a system for state-funded training programs to prepare and upskill personnel for innovative employment sectors.

4. Ensuring the competitiveness of women requiring social support in the job market.

By implementing the outlined strategies, the aim is to decrease the unemployment rate, especially among women, in rural areas and foster sustainable economic growth.Training and retraining initiatives for women can come in various forms, each serving specific purposes:

1.Advance Training" for Working Women: This form of training involves retraining or upgrading the qualifications of women working part-time, on rotating shifts, on unpaid leave, or on maternity leave. It also caters to women within organizations exhibiting subpar productivity or facing potential dismissal. This type of training can act as a preventive measure against female unemployment by enhancing skills, potentially averting dismissals, and preparing women for returning to work after breaks like maternity leave. It allows individuals to diversify their skill sets, keeping them competitive in the job market. Employment service experts consider this approach effective in maintaining employment stability for women.

2. Specialized Programs for Non-working Women with Children: These programs aim to equip non-working women, particularly those caring for children, with the skills needed to re-enter the workforce successfully. These initiatives focus on enhancing career prospects, boosting motivation for work, fostering professional growth, and increasing competitiveness in the labor market. Both federal and regional programs emphasize this aspect, reflecting a concerted effort to support women in resuming and advancing their careers.

Addressing the unique aspects of female unemployment, which are primarily region-specific, is vital for designing effective strategies to promote job placement and offer social and labor assistance to the unemployed. Consequently, several regions in the Uzbekistan have initiated tailored state programs, such as "Promotion of Employment in agriculture" and "Social Support women of Citizens," to counteract unemployment, especially among women, and mitigate its adverse societal impacts (figure-1).

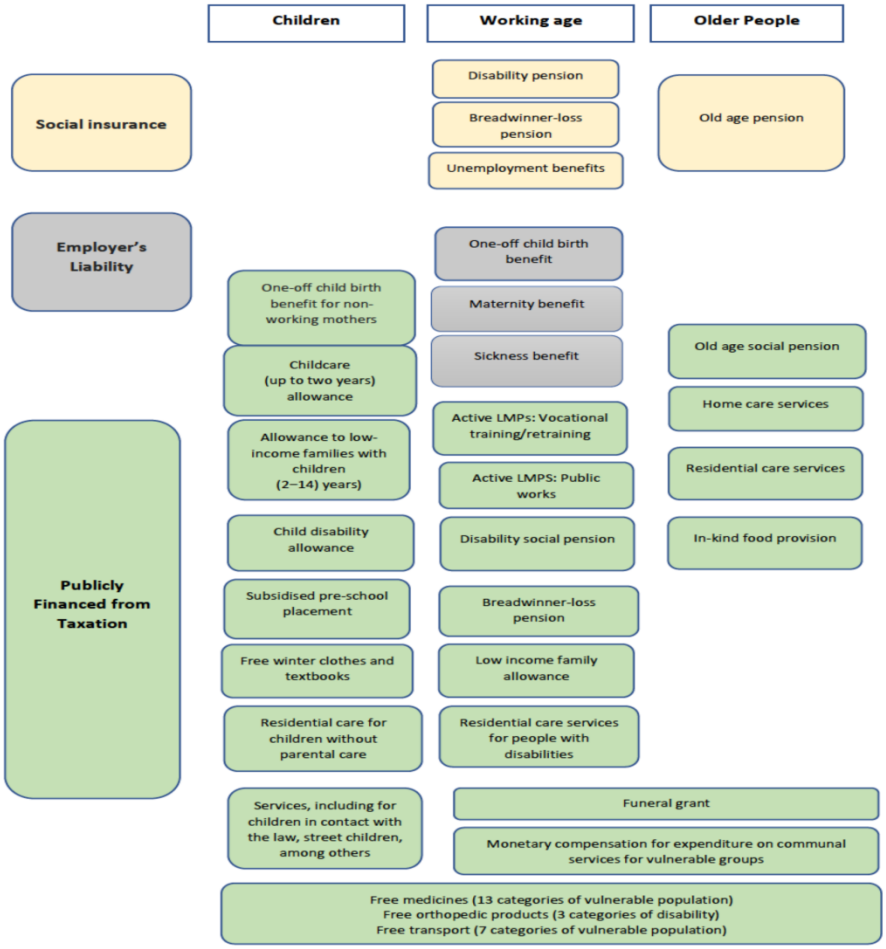
Furthermore, as part of the national project "Demography" in 2023, women with preschool children on maternity leave are afforded the opportunity for retraining or reskilling funded by the government budget. These projects involve collaboration with non-profit organizations, charitable foundations, public associations, and employers, allocating resources from the government budget. Business associations also play a significant role by financing such initiatives for their staff members.

Participation in the project entails women with children expressing interest in retraining, alongside their employers, approaching the employment service. Regional employment services play a pivotal role in executing and coordinating these initiatives, possessing distinct functions, authorities, and duties. During the training period, not exceeding six months, unemployed women receive a monthly stipend equivalent to the government minimum wage adjusted for the regional coefficient.The Employment Center offers specialized services such as "Vocational training for women with preschool children," targeting women who are not currently employed and those on leave to care for children under the age of three. These programs aim to provide free educational opportunities, retraining, and skill enhancement in high-demand professions within job market.Employment service reports include statistics on activities related to supporting unemployed women. Over the years, the employment service has demonstrated its effectiveness through successful engagement with citizens, a majority of whom are women. The service plays a crucial role in monitoring and managing the regional labor market, contributing to periodic stabilization of employment scenarios.

Amid the notable surge in demand during the spring and summer of 2023, employment centers across Uzbekistan faced a substantial increase in workload, with a fourfold rise in unemployment rates, among which more than half were women (54%).

Given the evolving landscape, there is a growing emphasis on the importance of regional employment services in providing vocational guidance to unemployed women and facilitating job placement by leveraging modern technologies and innovative approaches. Adapting to modern realities and embracing innovative strategies can enhance the efficiency of employment services in addressing the needs of unemployed women and improving overall labor market dynamics.

Figure-1.Main Components of The Social Protection System in Uzbekistan



CONCLUSION/RECOMMENDATIONS

To enhance the employment opportunities for women with family obligations, it is essential to introduce flexible work arrangements within organizational practices. This can involve offering part-time or flexible full-time positions, accommodating flexible work schedules, implementing shift work options, exploring non-traditional forms of employment such as remote work using contemporary technologies like computer programs and applications, and considering the redistribution of workloads among female employees. These measures not only create additional job opportunities but also support women who prioritize their family responsibilities.

Women should receive social and psychological support and counseling that addresses not only employment concerns but also navigates through challenging life circumstances. This support should be tailored to the unique needs and personal attributes of women and can be provided through regional assistance centers and specialized structures within the region.

In the current landscape, a promising approach is to encourage and foster women's entrepreneurial ventures. This initiative enables women to acquire new skills, adopt innovative labor strategies, and navigate the job market effectively. By tapping into their hobbies and interests - common among most women (e.g., baking, sewing clothes or toys, event planning, etc.) - with adequate guidance and professional training, these pursuits can be transformed into successful business opportunities.

A crucial strategy for addressing women's unemployment issues, notably at the regional level, involves implementing impactful social advertising campaigns, launching diverse social projects, and engaging mass media to educate the public about the significant social roles women play in society. These efforts aim to construct a positive image of women, showcasing their ability to excel in different aspects of life while effectively balancing maternal, familial, domestic, and professional responsibilities. Inspirational examples of women entrepreneurs, public figures, internet influencers, and other role models who successfully manage their careers while being mothers of multiple children can be highlighted to demonstrate the potential for women to thrive in various spheres of life.

Encouraging the "mechanism of social partnership" involves fostering active collaboration between the employment service and stakeholders such as governmental bodies, employers' associations, labor unions, various public and non-profit organizations to address women's employment and career guidance. This partnership can yield outcomes like job quotas or the creation of new positions, especially for working mothers with young children, and joint efforts to enhance strategies for solving women's employment challenges. It is essential to highlight that this mechanism is not only operational but also evolving to adapt to current trends.A prime illustration of the successful application of the social partnership mechanism is the implementation of the federal educational initiative "Mom-preneur," aimed at promoting women's entrepreneurship. This program brought together multiple reputable organizations to collaborate towards a shared socially significant objective.

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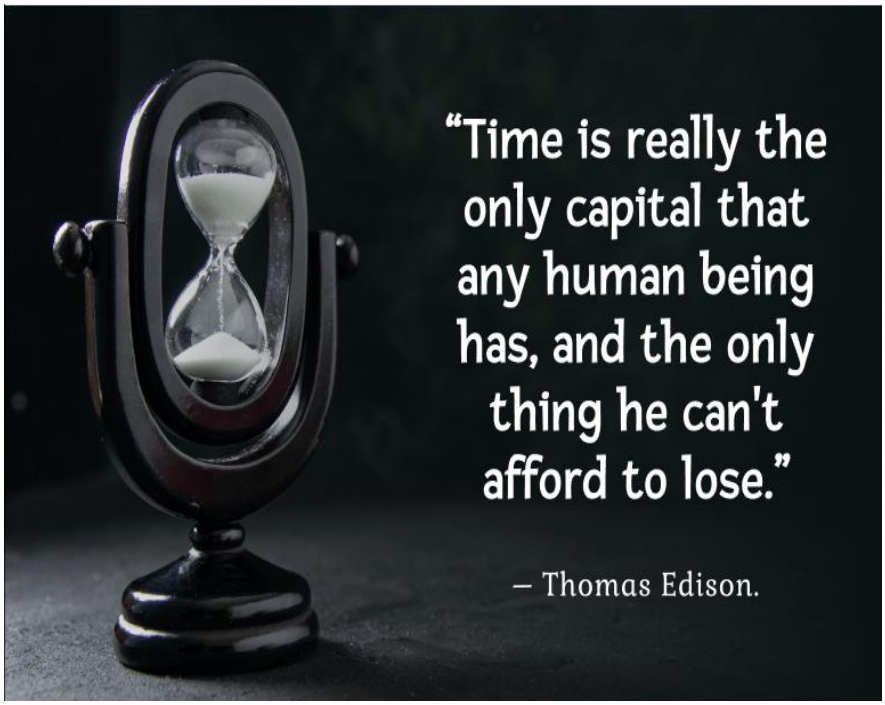

RELATIONSHIP BETWEEN AGRICULTURE AND EMPLOYMENT OF WOMEN LIVING IN RURAL AREAS

Xoliqov Sulaymon O'tkir ug'li[1]

ABSTRACT

The article highlights the rural areas, the intersection of agriculture and women's employment shapes livelihoods and economic dynamics. Women face challenges accessing equal opportunities, fair wages, and advancement in agricultural sectors. This relationship influences gender roles, economic empowerment, and community development. Addressing barriers to entry, promoting gender equality, and enhancing skill development can lead to a more inclusive and sustainable rural economy where women play a pivotal role in driving agricultural productivity and fostering thriving communities.

Key words: *Labor force, Wage gap, Productivity, Market access, Income generation, Economic empowerment, Poverty alleviation, Livelihood security, Human capital, Financial inclusion, Sustainable agriculture, Market opportunities, Gender mainstreaming, Access to resources, Economic resilience.*

INTRODUCTION

The bond between agriculture and the employment of women in rural areas is a vital pathway towards both economic advancement and gender empowerment worldwide. In numerous regions, women play a significant role in the agricultural labor force, making substantial contributions to food production and the well-being of rural communities. It's intriguing to note that data from the Food and Agriculture Organization (FAO) reveals that women represent approximately 43% of the agricultural workforce in developing countries, with even higher proportions in specific regions.

Analyses from an economic perspective highlight the potential benefits of empowering women in agriculture. Studies indicate that bridging the gender gap in access to agricultural resources and technology could potentially boost farm yields by 20-30%, leading to improved food security and higher incomes for rural households. Additionally, research suggests that women often reinvest a larger portion of their earnings back into their families and communities, further magnifying the positive socio-economic impacts of their involvement in agriculture.

Nevertheless, despite their pivotal contributions, women in rural areas frequently encounter systemic obstacles that impede their full participation and success in agriculture. These barriers encompass limited access to land ownership, credit, extension services, and opportunities for decision-making. Overcoming these challenges is not only crucial for advancing gender equality but also vital for unlocking the untapped economic potential of women in agriculture.

Through a deep exploration of the intricate relationship between agriculture and women's employment in rural areas, this article aims to shed light on the specific hurdles, possibilities, and economic consequences linked to inclusivity in agricultural livelihoods. By advocating for informed policy measures, targeted

[1]PhD student at Tashkent State Agrarian University.

investments, and dedicated initiatives to empower women in agriculture, we aspire to pave the way for increased agricultural productivity, sustainable rural development, and a more inclusive path towards economic growth.

LITERATURE REVIEW

Numerous authors have examined the issues surrounding the pivotal role of women in sustainable agriculture. Their studies emphasize the challenges encountered by female farmers in rural areas and underscore the potential advantages of increasing women's involvement in agricultural pursuits: Rostovskaya T.K., Kuchmaeva A.VKosharnaya G.B., Tarkhanova E.S., Kosharnaya G.B. and Golubkova I.V.[1], [2], [3], Amutnov A.I., I. V. Rodina, and others [4].

The research delves into various aspects such as the mechanisms leading to women's empowerment in rural farming communities, the socio-cultural determinants impacting women's engagement in labor, and the importance of inclusive gender-sensitive agricultural policies in fostering rural development. This study draws insights from the works of authors like Lavrova Yu.O. M. Gritsyuk, M. V. Ivantsova, O. Kolesnikova, E. B. Mezentseva, S. Y. Roshchin, L. S. Rzhanitsina, G. B. Kosharnaya, Paryagina O.A., and others[5], [6].

The contributions of economists like Balabanova E.S.A.V. Vakhobov, G.X. Abdurakhmanov, H.P. Abulkasimov, P.Z. Gashimov, and Abdullaeva have been substantial in analyzing the theoretical and conceptual underpinnings of the social sphere economy and social protection systems. Their comprehensive research thoroughly explores the obstacles confronted by rural women in accessing agricultural resources, the repercussions of gender disparities on farm productivity, and the tactics for empowering women within rural farming communities [7].

Scholars such as Bagirova A.P., Blednova N.D. have undertaken in-depth research that delves into the complex gender dynamics influencing women's roles in agriculture. Their work also investigates the socioeconomic ramifications of empowering rural women and provides policy recommendations aimed at promoting gender equality in rural areas.[8].

RESEARCH METHODOLOGY

We used a mixed-methods approach, combining surveys, interviews, and observations with women in rural areas engaged in agriculture. We analyzed data quantitatively and qualitatively to understand their experiences and challenges. Our sampling will be purposeful, and we will ensure ethical guidelines adherence throughout the study. The study aims to provide valuable insights for policy interventions and sustainable rural development practices.

ANALYSIS AND RESULTS

Indeed, at the international level, there is no universally accepted definition of "rural areas" that applies to all countries. Rural areas are multifaceted and can encompass different economic sectors, activities and occupations. This complexity is due to the diversity of rural areas around the world, each with its own unique characteristics, demographics and economic activities. As a result, a combination of factors such as population density, economic activities (agriculture, forestry, mining, etc.), infrastructure, access to services and cultural aspects specific to a particular country or region are often considered in determining what constitutes a rural area.

According to the ILO report on rural employment, there is no universal definition of rural areas that applies to all countries. Generally, the determining factor is the size of the locality or the smallest administrative unit in a country. Urban areas are usually defined as settlements with a population of 2,000 or more, while rural areas are defined as settlements with a population of less than 2,000 and sparsely populated regions. Where population density alone is not sufficient to distinguish between urban and rural areas, international organizations suggest that additional criteria be taken into account, such as the proportion of the economically active population engaged in agriculture, the availability of amenities such as electricity and running water in residential areas, and the proximity of basic services such as health facilities, schools, recreational facilities and entertainment.

Rural areas are home to a significant number of people who are engaged in various types of labor activities. Despite the impact of urbanization and globalization, of the 5.5 billion people living in developing countries, a staggering 3 billion - almost half of the world's population - call rural areas home. In 2023, some 1.068 billion people were employed in agriculture, forestry, fishing and hunting, accounting for 35% of the world's total employment, with many developing countries having a much higher shareTable 1.

Even in rural areas, the share of people employed in agriculture, forestry, fishing and hunting remains significantly high in all developing countries. While migration to urban areas is the dominant trend, rural populations continue to increase, sometimes at a rapid pace, which is particularly pronounced in regions such as sub-Saharan Africa and South Asia. In India, for example, the annual growth rate of the rural labor force is 1.5%, which corresponds to an annual inflow of 4 million new workers. Similarly, in Bangladesh, the rural labor force is growing by 1 million annually.

Despite these demographic shifts, millions of rural workers are forced into low-paid, often permanent jobs in sectors such as agriculture, forestry, fisheries, small-scale mining and various service industries.

Table 1. Rural employed population by economic sector and employment status (selected countries)

Economic sector	East Asia and Pacific (excluding PRC) (%)	Europe and Central Asia (%)	Latin America and the Caribbean basin (%)	Middle East and North Africa (%)	South Asia (%)	Africa sub-Saharan Sahara (%)
Men						
Agriculture, self-employed	46,8	8,5	38,4	24,6	33,1	56,6
Agriculture, hiredemployees	9,4	10,1	20,9	9,4	21,8	4,0
Non-agricultural sector,self-employed	11,5	7,4	9,2	8,8	11,8	6,9
Non-agricultural sector,wage earners	17,4	31,4	17,2	30,9	15,4	8,6
Economically inactive andthosefor whom no information is available	14,4	27,5	13,4	26,0	14,6	21,7
Women						
Agriculture, self-employed	38,4	6,9	22,8	38,6	12,7	53,5

Agriculture, hiredemployees	5,7	5,4	2,3	1,0	11,4	1,4
Non-agricultural sector,self-employed	11,3	1,6	11,7	2,8	2,9	6,8
Non-agricultural sector,wage earners	8,4	18,1	11,5	3,9	2,7	2,8
Economically inactive and thosefor whom no information is available	35,5	46,9	51,2	53,3	64,3	32,7

Poverty remains a pressing problem for rural workers, who often face precarious working conditions, lack adequate protection and are vulnerable to exploitation. In developing regions, the number of people living in extreme poverty (earning less than $1.25 a day at 2022 prices) fell from 1.8 billion in 2010 to 1.4 billion in 2023. While poverty rates in developing countries have generally been declining, this progress has slowed, especially in light of recent economic problems.

Rural labor markets have a significant impact on employment and on rural incomes and wages. These markets are largely composed of unskilled workers with limited education and training, often characterized by low literacy rates. Various forms of employment relationships are common, with permanent employment increasingly giving way to casual or temporary work without written contracts. Informal employment and the use of labor contractors are on the rise in many countries, making occupational classification more difficult.

Vulnerable groups in rural labor markets encompass a wide array of individuals facing various challenges, including migrant workers and their families, indigenous laborers, individuals subjected to forced or bonded labor, those affected by HIV/AIDS, and working children. The governance mechanisms overseeing rural labor markets in many countries are often weak, with labor inspections and oversight measures proving ineffective. Addressing the protection and rights of rural workers, especially vulnerable groups, stands as a pressing challenge that necessitates concerted efforts from stakeholders across different levels to bring about meaningful change.

When it comes to wages, rural workers frequently experience a wage lag compared to their urban counterparts. In several transitioning economies, the urban-rural wage gap has only widened as a result of rapid economic growth. Noteworthy is the significant participation of women in rural labor markets, particularly in agriculture, where they constitute more than 50% of the workforce. A burgeoning trend is the increasing presence of women among hired rural workers. However, persistent challenges persist, including the gender pay gap, issues like sexual harassment, inadequate maternity protection, and limited availability of childcare services in rural areas.

In addition to these hurdles, women continue to be underrepresented in decision-making bodies within labor unions relative to their union membership. This underrepresentation hampers the ability of unions to effectively address the needs and advocate for the interests of female union members. Therefore, fostering greater gender inclusivity and ensuring adequate representation of women in labor organizations is essential to ensuring that the voices and concerns of all members, particularly women, are not only heard but also acted upon effectively.

The multifaceted challenges facing vulnerable groups and women in rural labor markets underscore the complexities inherent in addressing disparities and promoting inclusivity to create more equitable and sustainable work environments. Analysis of data up to 2023 reveals alarming figures that shed light on the extent of these challenges in rural economies.

In rural areas, disparities in economic, social, and political power between employers and employees present formidable obstacles for labor markets. Studies have shown that in many rural regions, employers not only own agricultural land but also control a range of critical assets that are essential for the livelihoods of workers. For example, research indicates that up to 70% of rural workers in certain regions lack secure access to housing, and around 40% experience challenges in accessing clean water sources.

Decent work standards in rural settings often fall short of internationally recognized benchmarks, affecting a significant proportion of self-employed and waged rural workers. Data from various sources reveal that approximately 60% of rural workers globally lack access to adequate occupational health and safety measures, putting them at risk of work-related injuries and illnesses. Furthermore, gender disparities persist, with studies showing that women in rural areas earn up to 30% less than their male counterparts for similar work, highlighting the persistent wage gap issue.

The lack of social protection mechanisms is another critical concern for rural workers, with around 50% of the rural workforce in developing countries being excluded from any form of social security coverage. This leaves them vulnerable to economic shocks and increasing levels of poverty, further exacerbating inequalities within rural labor markets.

Efforts to address these challenges require a holistic approach that emphasizes the enhancement of labor standards, expansion of social protection coverage, and promotion of gender equality in rural workplaces. By adopting inclusive policies and targeted interventions, societies can strive to create more just, inclusive, and sustainable rural labor environments that prioritize the well-being and rights of all individuals, fostering a more equitable and prosperous future for rural communities. Existing national labor legislation often offers only basic protections to rural workers, particularly those in the agricultural sector, leaving them vulnerable to exploitation and poor working conditions. Enforcement of labor laws in rural areas is generally lacking, with protective regulations not fully extended to agriculture, outdated laws, or complete non-compliance in some cases. In certain jurisdictions, agricultural activities may even be explicitly exempted from standard labor laws, creating a regulatory gap that leaves workers without essential safeguards. For instance, in the UK, the Factories Act exclusively applies to industrial establishments and their employees, excluding agricultural labor from its provisions. Even when specific legislation addresses agricultural labor practices, such as regulations on working hours, wage structures, and housing standards in remote areas, enforcement mechanisms like labor inspection and compliance monitoring remain inadequate. This deficiency in oversight perpetuates a cycle of vulnerability for rural workers, undermining their rights, well-being, and economic security. In many rural areas, ignorance of existing laws and their provisions is a common problem. Rural residents, often characterized by higher illiteracy rates and speaking local languages other than the national language, find it difficult to understand legislation usually available only in the national language. In some communities, historical customs and traditions are more important than legal frameworks.

Rural workers' organizations often face problems in areas where traditional and feudal employment practices persist, resulting in restrictions on workers' legal rights. Generally, in rural areas where employment is more stable and formal, such as on large plantations, workers' organizations tend to be stronger and more organized. Rural unions often form around geographic areas rather than specific sectors, bringing together both wage earners and small producers. In regions where informal employment is prevalent, rural workers may not have suitable unions due to a lack of proper labor relations.

Agriculture and related activities serve as the main economic pillar in most rural economies, being the primary source of income, employment and livelihoods for about 86% of the rural population. While agriculture remains vital, non-farm employment opportunities are increasingly available in rural areas, leading to changes in the composition of the local labor force. The growth of non-agricultural sectors is particularly notable, with a significant increase in the number of women workers. Non-farm businesses, predominantly small and family businesses, are changing the structure of rural employment. The service and retail sectors are key drivers of nonfarm employment, accounting for 60-75% of jobs, with the remainder in wholesale trade and transportation, often food-related.

Rural workers, both self-employed and salaried, play a critical role in agricultural supply chains, supplying the food industry and delivering processed and fresh food to domestic and international markets. Smallholder farmers, often working through associations, contractually supply crops and livestock to large agricultural enterprises, multinational food processing corporations and supermarket chains. Cooperation within these supply chains is necessary to sustain agricultural production and ensure that rural workers have access to markets.

CONCLUSION/RECOMMENDATIONS

In the vast and intricate tapestry of rural economies and women's employment, a multitude of interconnected factors intertwine to shape the experiences, challenges, and opportunities for women across diverse landscapes. From the rolling fields of agriculture to the bustling hubs of entrepreneurship, women in rural areas navigate a complex web of social, economic, and cultural dynamics that both constrain and empower their labor participation.

At the heart of this intricate web lies the fundamental issue of gender inequality, entrenched in societal norms, institutional biases, and historical legacies. Tackling this deep-rooted challenge requires a comprehensive approach that addresses not only access to resources and opportunities but also the structural barriers that perpetuate disparities in power, decision-making, and economic agency.

As women in rural areas grapple with constraints related to land ownership, access to finance, and limited educational pathways, the need for targeted interventions and supportive policies becomes increasingly evident. Empowering women through initiatives that promote land rights, financial inclusion, vocational training, and technology adoption can unlock their potential as change agents, driving economic growth, innovation, and resilience in rural communities.

Moreover, transforming entrenched norms and perceptions around women's roles and capabilities is crucial for fostering a culture of equality and respect in rural settings. By challenging stereotypes, promoting role models, and creating inclusive spaces for women's voices to be heard, societies can break down barriers to women's full participation in rural economies and create a more inclusive and diverse labor force.

In this expansive and ever-evolving landscape, the journey towards gender equality and women's empowerment in rural employment is multifaceted, challenging, and deeply rewarding. By weaving together policy frameworks, grassroots initiatives, community partnerships, and global solidarity, we can create a tapestry of change that celebrates the contributions of women, nurtures their talents, and paves the way for a brighter and more equitable future for all.

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WAYS OF DEVELOPMENT WITH A DEVELOPED INFRASTRUCTURE TO SUPPORT SMALL BUSINESSES AND ENTREPRENEURSHIP ON THE EXAMPLE OF GERMANY AND THE UNITED KINGDOM

Kosimov Sardor Dilmurodovich[1]

ABSTRACT

This article explores the various methods of development employed by Germany and the United Kingdom to create and sustain a robust infrastructure that supports small businesses and entrepreneurship. By examining the strategies and policies implemented in these two advanced economies, the study highlights the critical factors contributing to a thriving entrepreneurial ecosystem. Key areas of focus include access to funding, regulatory frameworks, business support services, and innovation-driven initiatives. The comparative analysis aims to provide insights into best practices and potential policy recommendations that can be adopted by other countries seeking to enhance their support for small businesses and entrepreneurs. The findings underscore the importance of a conducive business environment, government intervention, and a collaborative approach between public and private sectors in fostering sustainable economic growth through entrepreneurship.

Keywords: *Small Businesses, Entrepreneurship, Infrastructure Development, Germany, United Kingdom, Business Support Services, Regulatory Frameworks, Funding Access, Innovation, Economic Growth, Public-Private Collaboration.*

I. INTRODUCTION.

The importance of small businesses and entrepreneurship in driving economic growth and innovation cannot be overstated. In many developed nations, small enterprises constitute a significant portion of the economy, fostering job creation, technological advancement, and competitive markets. This article focuses on the infrastructure that supports small businesses and entrepreneurship in Germany and the United Kingdom, two countries renowned for their dynamic and resilient business environments.

Germany and the United Kingdom offer compelling case studies due to their distinct yet highly effective approaches to nurturing small businesses. Germany's Mittelstand—small to medium-sized enterprises (SMEs) that form the backbone of its economy—exemplifies a model of stability and long-term growth. On the other hand, the United Kingdom has fostered a vibrant entrepreneurial culture characterized by innovation and adaptability, particularly in the face of recent economic challenges such as Brexit.

This comparative analysis aims to uncover the critical factors that contribute to the success of small businesses in these countries. By examining key elements such as access to funding, regulatory environments, business support services, and innovation policies, the study seeks to identify best practices that can be applied to other economies looking to bolster their entrepreneurial ecosystems.

[1]PhD researcher, teacher, Andijan Machine-Building Institute, Andijan branch of Kokand University, Uzbekistan, Andijan (ORCID: 0009-0007-7859-3482)

The importance of a supportive infrastructure for small businesses cannot be overstated. It not only enhances the viability and sustainability of these enterprises but also stimulates broader economic development. Through a detailed exploration of Germany and the United Kingdom, this article aims to provide valuable insights into how developed infrastructures can be leveraged to support and grow small businesses and entrepreneurial ventures effectively.

II. RESEARCH METHODOLOGY.

he methodology for this study involves a comprehensive and comparative analysis of the infrastructure supporting small businesses and entrepreneurship in Germany and the United Kingdom. The research approach is multi-faceted, incorporating both qualitative and quantitative methods to ensure a thorough examination of the subject matter.In our study, we will try to identify the main following factors:*Literature Review, Data Collection, Policy Analysis(table 1.)*

Table 1.

Main factors

Literature Review	A detailed review of existing literature was conducted to gather foundational knowledge and context. This included academic papers, government reports, industry publications, and case studies related to small business development, entrepreneurship, and economic policies in Germany and the United Kingdom. The literature review helped identify key themes, success factors, and challenges in the entrepreneurial ecosystems of these countries.
Data Collection	Primary data was collected through a series of structured interviews and surveys with small business owners, entrepreneurs, policy makers, and experts in the field. The aim was to gain firsthand insights into the experiences, perceptions, and challenges faced by small businesses in both countries. Additionally, secondary data was sourced from official statistics, economic reports, and databases such as the World Bank, OECD, and national statistical agencies.
Policy Analysis	An analysis of the policies and initiatives implemented by the governments of Germany and the United Kingdom was conducted to understand their impact on small business development and entrepreneurship. This included evaluating the effectiveness of financial support programs, regulatory reforms, tax incentives, and innovation-driven initiatives

This comprehensive methodology ensures a robust and nuanced understanding of the ways in which developed infrastructures support small businesses and entrepreneurship, offering valuable lessons for policymakers, researchers, and practitioners in the field.

III. LITERATURE REVIEW.

The literature on small business development and entrepreneurship in developed economies, particularly in Germany and the United Kingdom, is extensive and varied. This review synthesizes key findings from academic research, policy reports, and industry analyses to provide a foundation for understanding the infrastructure that supports small businesses and entrepreneurship in these two countries. Research by Audretsch and Lehmann[1] highlights the importance of a supportive ecosystem for small businesses, emphasizing the role of financial access, regulatory frameworks, and innovation policies. Studies show that Germany's Mittelstand benefits from a stable and supportive environment that encourages long-term growth and resilience[2] . Similarly, the UK's entrepreneurial ecosystem is characterized by its adaptability and innovation, supported by a vibrant financial sector and a culture that fosters entrepreneurial activities[3]. The availability of funding is a critical factor for the success of small businesses. Beck and Demirguc-Kunt[4] argue that access to finance is one of the most significant constraints faced by small enterprises. In Germany, the presence of well-established financial institutions like the KfW (Kreditanstalt für Wiederaufbau) provides robust support for SMEs through various loan programs and financial services. In contrast, the UK has developed a diverse financial landscape, including venture capital, angel investors, and crowdfunding platforms, which play a crucial role in supporting new and innovative businesses[5]. Regulatory environments can either facilitate or hinder the growth of small businesses. Germany's regulatory framework is known for its stability and predictability, which provides a secure environment for businesses to operate[6]. The UK, on the other hand, has focused on creating a flexible regulatory system that adapts to changing economic conditions and encourages entrepreneurial ventures[7]. Both approaches have their merits, contributing to the respective strengths of each country's small business sector. Effective business support services, including mentorship, training, and advisory services, are vital for small business success. In Germany, institutions such as the Chambers of Commerce and Industry (IHK) offer comprehensive support to SMEs, including training programs and networking opportunities [8]. The UK's approach includes government-backed initiatives like the Business Growth Service, which provides tailored

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advice and support to growing businesses[1]. The UK also places a strong emphasis on innovation, with policies aimed at fostering a knowledge-based economy and supporting high-tech startups through initiatives like Innovate UK[2].

IV. ANALYSIS AND RESULTS.

The comparative analysis of Germany and the United Kingdom reveals several key findings regarding the development of infrastructure to support small businesses and entrepreneurship. The results underscore the importance of various factors, including access to funding, regulatory frameworks, business support services, and innovation policies, in fostering a robust entrepreneurial ecosystem. We analyzed a few areas as 2 infrastructure systems(Table 2).

Table 2. : Comparative support analyses

Germany	United Kingdom
Access to Funding	
The presence of institutions like the KfW Bank has significantly enhanced access to funding for small businesses. The KfW provides various loan programs, including low-interest loans and grants, which have helped stabilize and grow the Mittelstand. Data from the German Federal Ministry for Economic Affairs and Energy shows that over 70% of SMEs have utilized these financial services, contributing to their long-term sustainability.	diverse financial landscape, encompassing venture capital, angel investors, and crowdfunding platforms, has created a dynamic environment for startups. According to the British Business Bank, there has been a 25% increase in venture capital investments in UK startups over the past five years. This growth has been particularly notable in the tech and creative industries, where innovative financing options have driven entrepreneurial activities.
Regulatory Frameworks	
Stable and predictable regulatory environment has provided a secure foundation for SMEs. The country's comprehensive regulations ensure transparency and protection for businesses, fostering trust and stability. The World Bank's Ease of Doing Business Report consistently ranks Germany highly in terms of regulatory quality and enforcement.	Flexible regulatory system has adapted to changing economic conditions, supporting entrepreneurial ventures. Post-Brexit regulatory reforms have aimed to reduce bureaucratic hurdles and enhance business flexibility. Surveys conducted by the Federation of Small Businesses (FSB) indicate that over 60% of small businesses feel that recent regulatory changes have positively impacted their operations.

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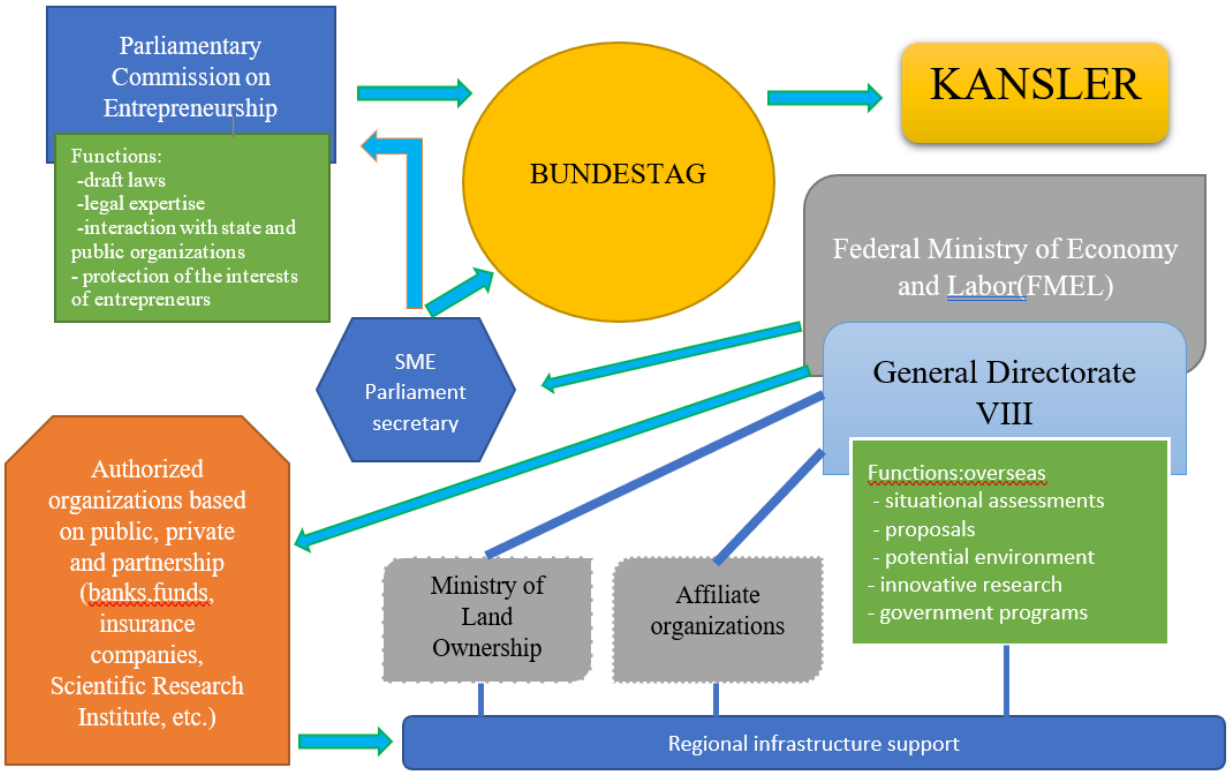
Business Support Services:	
In Germany, the Chambers of Commerce and Industry (IHK) have been instrumental in providing training, mentorship, and networking opportunities for SMEs. These services have been widely utilized, with over 80% of surveyed businesses reporting satisfaction with the support received. The IHK's role in facilitating international trade and market expansion has also been significant.	The UK's government-backed initiatives, such as the Business Growth Service, have offered tailored advice and support to growing businesses. Evaluations by the Department for Business, Energy & Industrial Strategy (BEIS) show that businesses receiving support from these services have experienced a 15% higher growth rate compared to those that did not
Innovation and Technology	
Germany's strong links between industry and research institutions have fostered a culture of innovation. The Fraunhofer Institutes, for instance, have played a crucial role in translating research into practical applications for SMEs. Data from the German Research Foundation indicates that SMEs involved in collaborative R&D projects have seen a 20% increase in productivity.	The UK's emphasis on innovation is evident in initiatives like Innovate UK, which supports high-tech startups and knowledge-based businesses. According to the UK Innovation Survey, businesses engaged in innovation activities reported a 30% higher turnover growth compared to non-innovators. The focus on technology transfer and commercialization has been a key driver of this success.
Policy and Government Intervention	
Germany's coordinated market economy, with strategic government interventions, has ensured that SMEs remain competitive on a global scale. Policies such as the "Industrie 4.0" initiative have supported digital transformation in manufacturing SMEs, leading to increased efficiency and competitiveness.	The UK's market-driven policies, emphasizing deregulation and entrepreneurship, have created a conducive environment for business innovation and growth. Programs like the Enterprise Investment Scheme (EIS) have incentivized private investment in small businesses, contributing to a vibrant entrepreneurial landscape.

The results highlight the effectiveness of different strategies employed by Germany and the United Kingdom in supporting small businesses and entrepreneurship. Germany's approach, characterized by stable regulations, strong financial support, and industry-research collaboration, has fostered sustainable growth for SMEs.



Picture 1. Infrastructure for the development of small business and entrepreneurship in Germany.

The UK's flexible regulatory environment, diverse funding landscape, and innovation-driven policies have created a dynamic and adaptive entrepreneurial ecosystem. These findings offer valuable insights for other countries seeking to develop infrastructures that support small businesses and drive economic growth.

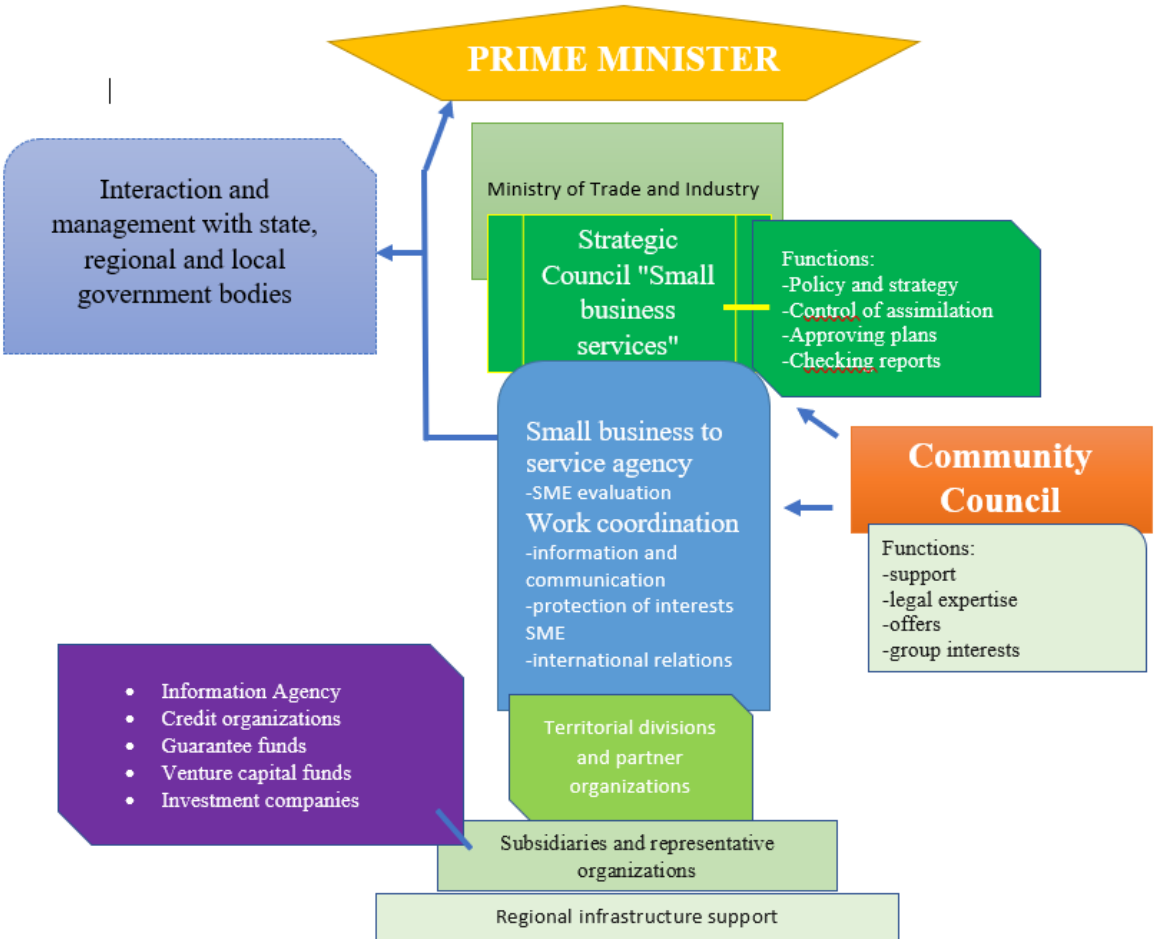
Discussion.

An other side we can mention to governmental policy belong to infrastructure support that all of them coordinated for development of small business and entrepreneurships As example we can show the two structures(Picture 1. and Picture 2.)

In Germany the Picture 1. shows that Bundestag and Kansler collaborate with Parliamentary Commission on Entrepreneurship. Parliamentary Commission carries out work on draft laws, legal expertise, interaction with state and public organizations, and protection of the interests of entrepreneurs.

In addition, the General Directorate VIII of the Federal Ministry of Economy and Labor has been established, which oversees situational assessments, proposals, potential environment, innovative research, and government programs in other areas.

There are many infrastructures and part that supports small business as needed environment for gaining future development of the economy. Today Germany is first economy where development small business infrastructure diversificated many areas of these field and this process is built with high altitude of government policy.



Picture 2. Infrastructure for the development of small business and entrepreneurship in UK

In other hand UK's support strategies are more flexible and convenient slight economical environments.

Conclusion.

The development of infrastructure to support small businesses and entrepreneurship is important for fostering economic growth and innovation. The experiences of Germany and the United Kingdom provide valuable insights into how different approaches can create a robust entrepreneurial ecosystem. We can use in the future these approach strategies in Uzbekistan.

Germany's model, characterized by its stable regulatory environment, strong financial institutions like the KfW, and industry-research collaborations, has resulted in a resilient and sustainable small business sector. The country's commitment to providing comprehensive business support services and strategic government interventions has ensured that SMEs can thrive and compete globally.

The United Kingdom, on the other hand, has successfully created a dynamic and flexible entrepreneurial environment. The diverse financial landscape, including venture capital and crowdfunding, combined with a regulatory framework that adapts to economic changes, has encouraged a culture of innovation and

adaptability. Government initiatives aimed at supporting high-tech startups and reducing bureaucratic hurdles have further enhanced the UK's position as a hub for entrepreneurship.

The comparative analysis highlights that both stability and flexibility can be effective in nurturing small businesses, depending on the specific economic and cultural context. Germany's coordinated market economy and the UK's liberal market economy each offer distinct advantages and best practices that other countries can learn from.

For policy and market aiming to enhance their own entrepreneurial ecosystems, several key lessons emerge from this study:

- Creating a regulatory framework that balances stability with flexibility can provide a secure yet dynamic environment for businesses.
- Comprehensive support services, including mentorship, training, and advisory services, are vital for the success and growth of small enterprises.
- Encouraging innovation through collaboration between industry and research institutions, as well as government support for high-tech startups, drives competitiveness and growth.
- Strategic government policies and interventions play animportant role in shaping the business environment and ensuring long-term sustainability for SMEs.

In conclusion, while Germany and the United Kingdom have taken different paths, their successes underscore the importance of a supportive infrastructure in fostering small business development and entrepreneurship. By adopting best practices from these countries, other nations can create conducive environments that stimulate economic growth, innovation, and sustainable development.

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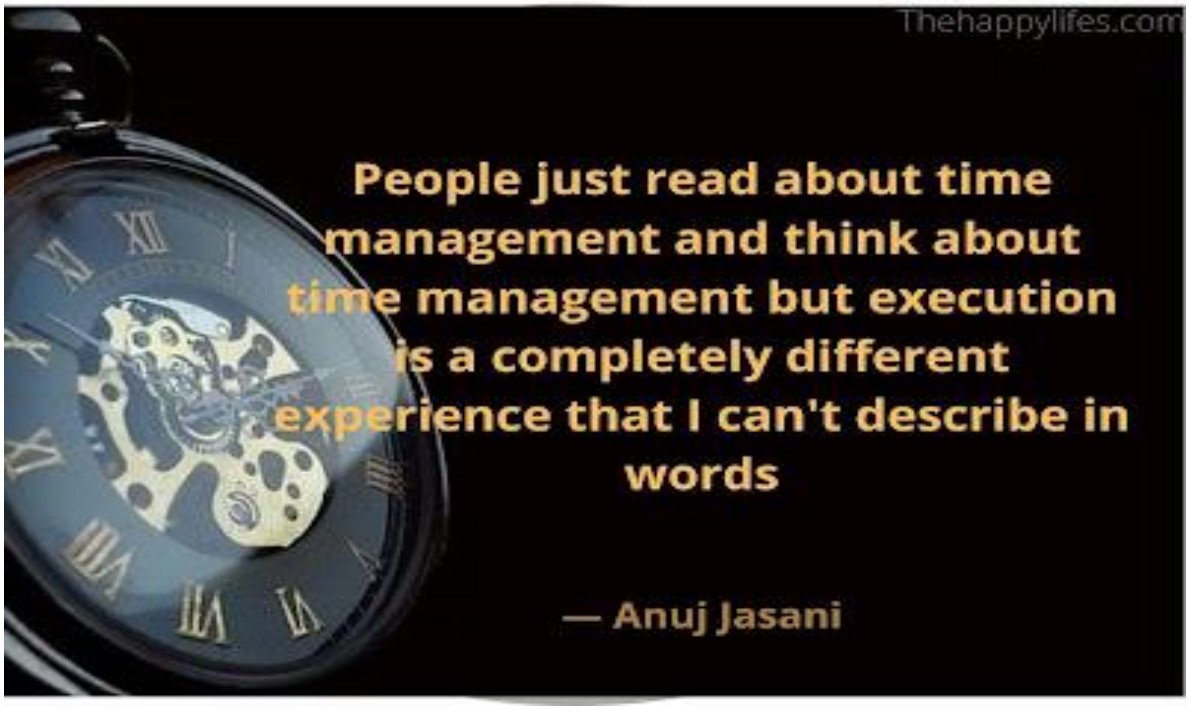


ASSESSMENT OF FACTORS AFFECTING THE ECONOMIC SECURITY OF BUSINESS SUBJECTS IN THE DIGITAL ECONOMY

Akbarov Abdulkhamid Akmal ugli[1]

ABSTRACT

As a result of the development of the digital economy, the issues of ensuring the economic security of business entities are gaining urgent importance. Digital technologies have a great impact on the activities of companies, in which they face not only new opportunities, but also new risks. This article evaluates the factors affecting the economic security of business entities and presents the opinions of foreign scientists in the field. Also, as a scientific innovation, software code written in Python to evaluate these factors is provided.

Keywords: *Digital Economy, Economic Security, Python Programming Language, Risks, Entrepreneurship*

Introduction.

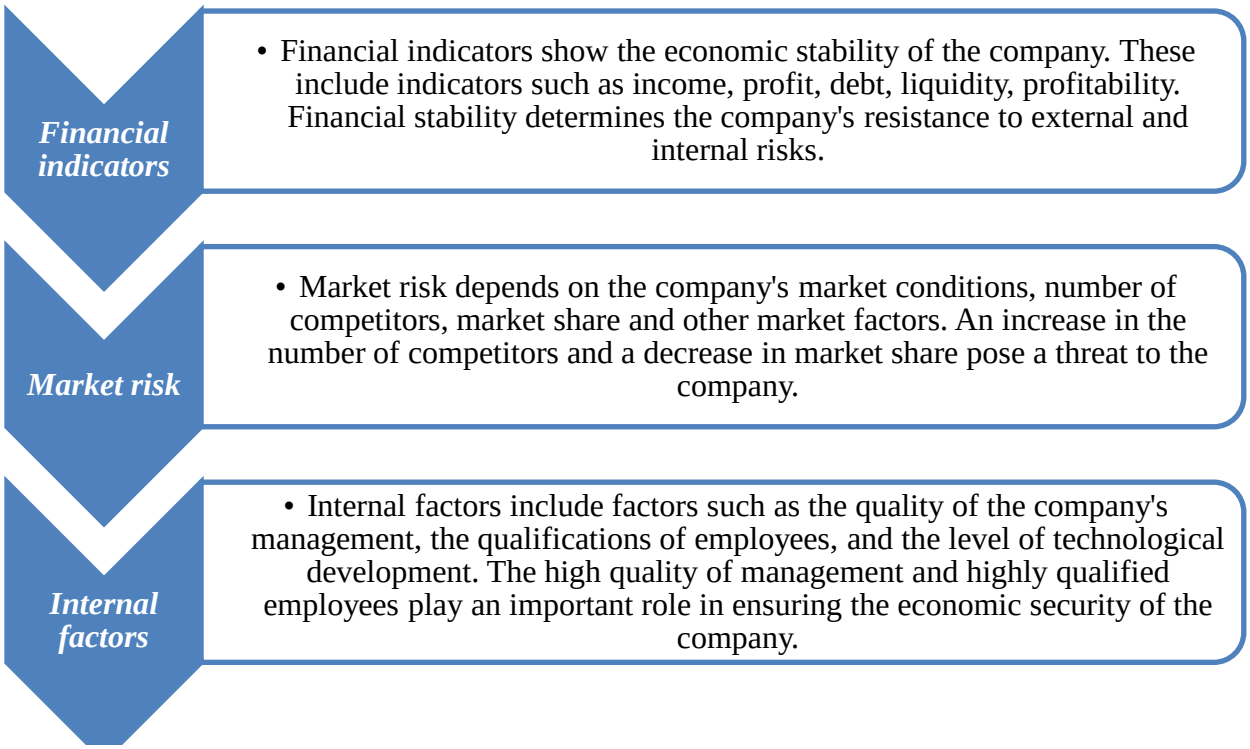
Economic security means creating the necessary conditions for the stable and successful operation of the company and protecting it from risks. This concept includes a number of factors, such as the company's economic indicators, financial stability, market risk, internal management qualities. In the conditions of the digital economy, these factors become more complicated and require more attention. It is known that entrepreneurship plays an important role in the economic development of any country.[2] The success of this activity largely depends on ensuring its economic security. The rapid development of the market economy on a global scale naturally creates inevitable problems in business activity that affect its economic security. It is natural that certain economic risks, if no measures to prevent them are taken in time, can cause any booming business to face a crisis in a very short period of time. Of course, economic security is one of the important conditions necessary for the stability and success of entrepreneurship.[3] Of course, the digital economy refers to the implementation of economic activities with the help of the Internet, digital technologies and information systems. This process is associated with the widespread use of digital platforms, e-commerce, online services, big data, artificial intelligence and other technologies. The digital economy creates new opportunities for companies, but also new risks.

Factors affecting the economic security of business entities can be divided into the following groups:

[1] PhD student at Andijan Machine-Building Institute, Senior Lecturer at Tashkent State University of Economics

[2] Эрматов, А. А., & Акбаров, А. (2021). Кичик бизнес ва хусусий тадбиркорлик фаолиятида иқтисодий хавфсизликни таъминлашнинг ўзига хос жиҳатлари. Iqtisodiyot va innovatsion texnologiyalar. 2021. 6-сон. 239-249-б.

[3] Ugli, Akbarov Abdulkhamid Akmal. "ANALYSIS OF ECONOMIC SECURITY INDICATORS IN BUSINESS ACTIVITY AND THEIR ASSESSMENT METHODS." EPRA International Journal of Economic and Business Review (JEBR) 12.5 (2024): 34-38.



Picture. Classification of factors affecting the economic security of business entities [1]

Literature Analysis

Many foreign scientists have conducted research on the digital economy and its impact. For example, Brynjolfsson and McAfee (2014) point out that digital technologies bring great changes in the economy and note that new opportunities and risks for companies appear. Also, Davenport and Kirby (2015) emphasize the importance of innovation and digital transformation for companies in the digital economy.

Economists B.Tursunov, H.Uktamov, M.Sobirova define the economic security of business activity as "a vitally important economic system created by the system of legal, organizational-economic, financial, social-economic and engineering technical measures implemented by the business entity. it is the state of protecting one's interests from internal and external threats..[2]

Economist P. Khoshimov in his scientific views stated that "Entrepreneurial activity security means that the subject of entrepreneurial activity is protected from internal and external threats that lead to economic, legal and other negative consequences at all stages of its operation" reefed.[3]

[1] The author development

[2] B.O.Tursunov, X.F.Uktamov, M.N.Sobirova. Xavfsizlik va texnologiya. O‘quv qo‘llanma. Toshkent. TDIU, 2022. - 230 b.

[3] П.З.Хошимов. Тадбиркорликнинг иқтисодий хавфсизлигини таъминлаш концепцияси ва тизими. “Иқтисод ва молия” илмий журнали-Т.: 2015/11. 24-б

Results and Discussion.

As a scientific innovation, we created a programming code in Python to evaluate the economic security of business entities. This code normalizes various indicators for companies and combines them into an overall economic security score. The program code in Python, created to evaluate the economic security of business entities, is as follows:

```
import pandas as pd
import numpy as np
# Dummy data creation for example purposes
data = {
    'Company': ['A', 'B', 'C', 'D'],
    'Revenue': [100000, 150000, 200000, 250000],
    'Profit': [10000, 20000, 15000, 30000],
    'Debt': [50000, 60000, 40000, 70000],
    'Competitors': [5, 3, 4, 2],
    'Market_Share': [0.2, 0.25, 0.3, 0.35],
    'Management_Quality': [4, 5, 3, 5], # Scale 1-5
    'Employee_Skill': [3, 4, 4, 5] # Scale 1-5
}
# Convert the dictionary into a DataFrame
df = pd.DataFrame(data)
# Function to calculate economic security score
def calculate_economic_security(df):
    # Normalize the data (simple normalization)
    df['Revenue_Norm'] = df['Revenue'] / df['Revenue'].max()
    df['Profit_Norm'] = df['Profit'] / df['Profit'].max()
    df['Debt_Norm'] = 1 - (df['Debt'] / df['Debt'].max())  # Lower debt is better
    df['Competitors_Norm'] = 1 - (df['Competitors'] / df['Competitors'].max())  # Fewer competitors is better
    df['Market_Share_Norm'] = df['Market_Share'] / df['Market_Share'].max()
    df['Management_Quality_Norm'] = df['Management_Quality'] / df['Management_Quality'].max()
```

```
    df['Employee_Skill_Norm'] = df['Employee_Skill'] / df['Employee_Skill'].max()

    # Weighted sum of normalized scores (weights can be adjusted)
    weights = {
        'Revenue_Norm': 0.2,
        'Profit_Norm': 0.2,
        'Debt_Norm': 0.15,
        'Competitors_Norm': 0.1,
        'Market_Share_Norm': 0.15,
        'Management_Quality_Norm': 0.1,
        'Employee_Skill_Norm': 0.1
    }

    df['Economic_Security_Score'] = (
        df['Revenue_Norm'] * weights['Revenue_Norm'] +
        df['Profit_Norm'] * weights['Profit_Norm'] +
        df['Debt_Norm'] * weights['Debt_Norm'] +
        df['Competitors_Norm'] * weights['Competitors_Norm'] +
        df['Market_Share_Norm'] * weights['Market_Share_Norm'] +
        df['Management_Quality_Norm'] * weights['Management_Quality_Norm'] +
        df['Employee_Skill_Norm'] * weights['Employee_Skill_Norm']
    )

    return df[['Company', 'Economic_Security_Score']]

# Calculate economic security scores
economic_security_scores = calculate_economic_security(df)
print(economic_security_scores)
```

In the above code, the following processes are carried out to assess the economic security of business entities:

1. Data creation:

• A data dictionary is created, which includes indicators such as revenue, profit, debt, number of competitors, market share, quality of management and staff qualifications for each company.

• This dictionary is converted to a DataFrame using the pandas library.

2. Normalization:

• Normalized values are calculated for each indicator. This

during normalization, the highest value of each indicator is equal to 1, and the lowest value is equal to 0. In this way, all indicators are evaluated on the same scale.

3. Determination of weights:

• Weights are assigned to each normalized indicator.

These weights reflect which indicators are more important in assessing the economic security of the company.

4. Calculation of economic security points:

• Total economic security scores for each company are calculated using normalized indicators and weights. These scores indicate the overall economic security of the company.

5. Outputting results:

• Economic security scores calculated for each company are output as a result.

Conclusions and suggestions.

The rapid development of the digital economy makes ensuring the economic security of business entities an urgent issue. Digital technologies have a major impact on the operations of companies, exposing them to new opportunities and risks. This article analyzed the main factors such as financial indicators, market risk, and internal factors in the assessment of economic security for companies.[1] The company's level of economic security was determined with the help of a software code created in Python, and total scores were calculated through normalized indicators and their weights. Also, the opinions of foreign scientists were relied upon in this process.

Suggestions

- Companies should actively support digital technologies and information systems and optimize their activities. Through this, it is possible to increase competitiveness and strengthen one's position in the market.
- Companies should focus on improving their financial performance. It is important to ensure financial stability by reducing the amount of debt and increasing income and profit.

[1] Ibragimov, N., and A. A. Akbarov. "The role of cryptography in information security." Научные разработки: евразийский регион 107 (2017).

- It is necessary to reduce market risks by constantly monitoring market conditions and controlling factors such as the number of competitors, market share.
- In order to improve the quality of internal management, it is necessary to regularly improve the skills of managers and employees. This goal can be achieved by modernizing management systems and using innovative approaches.
- It is necessary to introduce risk prediction and management systems using digital technologies. This ensures that companies can quickly respond to risks.
- Companies should support innovations and technological innovations, develop new products and services. This is essential to succeed in the digital economy.
- These proposals help ensure economic security for companies in the digital economy. The code written in Python presented in this article serves as an effective tool for evaluating the level of economic security of companies.

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