

REPUBLIC OF AZERBAIJAN

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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**DIRECTIONS FOR IMPROVING THE ACTIVITY OF
BANK-CREDIT INSTITUTIONS IN THE REGIONS**

Speciality: 5311.01 – "Organization and Management
of Enterprises"

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GENERAL CHARACTER OF THE DISSERTATION

Relevance of the research topic and the degree of its development. In the conditions of modern global economic and especially financial transformations, there is a serious need for new mechanisms and tools for the stable organization of economic activity, efficient use of economic resources and first of all, financial funds. Similar mechanisms that have been in use for many years should be at least maximally improved in current conditions and new realities should be taken into account. The negative results of the last global financial crisis showed that no country, multinational companies and corporations, banking and credit organizations and enterprises were immune from the crisis and global shocks. Thus, due to the mentioned crisis, a large amount of banks, insurance and mortgage firms went bankrupt or got into a difficult situation. In various regions of the world, the negative effects of the crisis still remain, and this manifests itself in restrictions on the movement of investments, financial flows, mainly available credit resources, or the tightening of conditions.

Effective use of the potential of regions in the sustainable development of national economies, improvement of its structure in accordance with the requirements of the time, expansion of the activity of real economy areas, involvement of existing resources in economic growth and financial circulation is of exceptional importance.

Increasing economic activity in the regions does not end only with its important role in the development of the country's economy but also creates additional opportunities for the productive use of natural and economic resources in the regions, performs useful functions in raising the employment and living standards of the population, and generally contributes to the stability and dynamism of socio-economic development throughout the country. With these goals, it is considered important to implement large innovation-investment projects in the regions, to create a network of competitive production and service enterprises, and to develop infrastructure. For the implementation of these measures and projects, there is a need for financial and credit resources, favorable financial guarantee mechanisms, bank and credit instruments and permanent circulation of funds.

Over the past 20 years, under the leadership of the President Ilham Aliyev, Azerbaijan has become a dynamically developing leading state in the region. Our economy has formed resilience and the sources of economic growth have been stabilized. The country's specialization in oil and gas products has been ensured in the international labor division system, and Azerbaijan has become one of the main energy security partners of the European Union. Along with the oil, Azerbaijan's natural gas is also exported to the European market with a high financial capacity. During the period since the restoration of independence - until the end of 2024, the total volume of investments directed to our economy amounted to 320 billion US dollars. The revenues and expenditures of the state budget have increased many times, and our foreign exchange reserves have reached the level of 70 billion US dollars. IV State Program has been continuously implemented for the socio-economic development of the regions.

Currently, large-scale measures are being taken to eliminate the negative effects of the Covid-19 pandemic. Credit and capital investment in various sectors of the economy is increasing year by year. On the other hand, after the Great Karabakh Victory, new goals of regional development and the main mechanisms of state policy in this area were defined. Thus, the division of economic zoning has been renewed and 2 new economic regions - Karabakh and Eastern Zangezur have been created in the territories freed from occupation. In our opinion, by effectively using high technologies, including "smart" technologies, a great burden falls on the banks and credit institutions in accelerating the economic development of these new economic regions totally, in all economic regions of our country, in improving the structure of the sectoral economy, in creating modern economic activity areas based on the resource potential.

Over the past 3 years, the government has allocated 12 billion manats to the restoration and revival of post-conflict areas. We believe that putting all the burden on the government in these processes is not a very effective approach. From this point of view, there is a serious need to expand the activities of banking and credit institutions in the development and financing of the real economy in the regions.

In the regions, bank-credit institutions with a free balance do not

almost exist. Or, there are no investment-innovation funds (associations) at the regional level and financial-industrial groups are not visible. Although the relevant law of the country has been adopted for a long time, the creation of financial and industrial groups in our country has not been ensured. At the same time, there are some problems of ensuring the needs of entrepreneurship and business entities operating in various sectors of the economy with cheap, favorable, long-term credit resources. As we mentioned earlier, one of the serious problems is ensuring the active participation of banking and credit institutions in the acceleration of the development of real economy areas in the regions. In our opinion, there is a need to conduct fundamental research in these directions, to clarify the nature of existing problems and to determine more effective solutions.

These indicated points show the relevance of the subject of the dissertation.

According to the degree of development of the subject of the dissertation, let us note that to provide the economy with financial and credit resources and services, to credit the activities of entrepreneurship and business subjects, to organize credit investments in real economy areas, to implement projects connected within the framework of regional development problems, regional socio-economic preparing measures to eliminate development problems, to increase economic activity in the regions and etc. some fundamental scientific works were written and theoretical-methodological approaches were formed. Among Azerbaijani scientists - Academician Z.A. Samadzade, A.J. Muradov, A.A. Alekbarov, B.Kh. Atashov, A.Sh. Shekaraliyev, M.A. Ahmadov, Z.F. Mammadov, Sh.T. Aliyev, E.M. Sadigov, V.A. The scientific works of Gasimli and others in these directions are noteworthy. In the scientific works of foreign scientists, there is information related to the efficiency of economic financing and financial guarantee mechanisms, the provision of bank-credit services in the regional aspect, and the organization of the activities of bank-credit institutions in connection with them. Among them A. Smith, A. Marshall, D. Ricardo, H. P. Minsky, J. B. Say, P. A. Samuelson, R. M. Solow, R. Levin, R. Braley, S. Myers, O. I. Lavrushin, T. N. Vetrova, A. N. Panov, AA. Kanke and others can be cited as an example.

In addition to the above mentioned facts, we believe that in modern times, there is a need for fundamental research and deeper research on the problems of ensuring the development of the regional economy in accordance with global threats and objective realities, improving the working mechanisms of bank-credit institutions in these development processes, and increasing the role of bank-credit institutions in the regions.

The object of the research is the banking and credit institutions operating in Azerbaijan and its regions, the implemented processes, mechanisms and styles in the activities of these institutions.

The subject of the research consists of determining the directions for improving the activity of banking and credit institutions in the regions and preparing the mechanisms of action in the conditions of global economic and financial, regional transformations.

The goals and objectives of the research. The main goal of the research work is to determine the direction of improvement of banking and credit institutions in the regions. In this regard, the following tasks have been set in the research process:

- first of all, researching theoretical issues related to real economy and activity of banking and credit institutions in accordance with regional development problems;

- consideration of methodological features on the activity and role of bank-credit institutions in the development of regions;

- study and generalization of the world experience on the efficient operation of bank-credit institutions in ensuring the development of regions;

- analyzing the current state of activity of banking and credit institutions in Azerbaijan regions;

- assessment of the efficiency of bank-credit institutions in realizing the socio-economic development of the regions;

- assessment of the possibilities of expanding the activities of banking and credit institutions in the regions due to digital technologies;

- consideration of the issues of strengthening the infrastructure of banking and credit institutions in the regions of Azerbaijan;

- investigating the issues of ensuring the role of bank-credit

institutions in Karabakh and East Zangezur economic regions;

- justification of the importance of creating an efficient bank-credit network in the regions of Azerbaijan and determination of recommendations, proposals and etc.

The methods of the research. A number of scientific methods were used in the research process, including: abstraction, analysis, synthesis, comparison, statistical analysis and other methods. At the same time, methodological styles and conceptual views on the problems of more efficient organization of the activities of bank-credit institutions in the regions, improvement of existing mechanisms and practical tools were kept in mind and it was also referred to scientific works of local and foreign scientists.

Along with these, the main provisions formed by the state policy on the considered problems, legislative acts, decrees and orders of the President of the republic, as well as the methodological materials of scientific and research institutes have been used.

The main theses to be defended:

1. Depending on the deep transformation of economic processes in global conditions and at the regional level, it is necessary to formulate conceptual-theoretical views on the role of banking and credit institutions in the effective organization of the real economy in order to solve regional development problems.

2. In regional development processes, there is a need to study the methodological features related to the adapted activity of bank-credit institutions to the requirements of the time and to determine the superior activity styles.

3. In order to improve the activity of banking and credit institutions in the regions of our country, it may be useful to examine and generalize relevant international experience in this field.

4. The evaluation of the efficiency of the activity of bank-credit institutions in solving regional socio-economic development problems has emerged as a necessity for the complex analysis of the modern state of the activity of bank-credit institutions in the regions of Azerbaijan .

5. There is a need to justify the wider use of digital technologies in increasing the potential of banking and credit institutions in the regions of the country and to assess the opportunities related to this.

6. It is important to study the infrastructure problems in expanding the activities of banking and credit institutions in the regions of Azerbaijan.

7. There is a need to study the problems of increasing the role of banking and credit institutions in the newly created construction, restoration and revival processes in the liberated territories - Karabakh and East Zangezur economic regions.

8. The creation of efficient and accessible banking and credit institutions in the regions of Azerbaijan and the effective organization of their activities, the preparation of proposals related to these are characterized as an objective necessity, etc.

The scientific novelty:

– From a theoretical and practical point of view, the strategic role of banking and credit institutions in lending the economy in a regional context has been substantiated, the main goals have been determined, and a block diagram of important and strategic functions in the management processes of banking and credit institutions has been developed;

– Factors that significantly affect the efficiency and attractiveness of banking and credit services in the regions have been systematized, and a block diagram of superior and different methodological approaches to the maximum efficient organization of the activities of banking and credit institutions in the development of regions has been developed;

– A block-scheme of factors for evaluating the efficiency of the activity of bank-credit institutions in the processes of regional socio-economic development and problems that slow down the expansion of lending was developed;

– Under the conditions of modern realities and at the regional level, the main functions of commercial banks in increasing the efficiency of socio-economic development processes have been determined;

– In connection with the expansion and more efficient organization of the activities of bank-credit institutions in Azerbaijan regions, the main directions of the mechanism of state regulation of the bank-credit system were determined;

- The characteristics of the digitalization process and the risks of digitalization of banking services in the banking and credit sector are given, and the multiplicative effect and advantages of the application of digital technologies in banking and credit institutions are substantiated;
- The stages of assessment of the role of bank-credit services in the development of the regions were defined and a justified algorithm of their realization processes was developed;
- A block diagram of the components of the Strategy for the creation and development of an efficient and accessible network of bank-credit institutions in the regions of the Azerbaijan Republic was prepared and etc.

Theoretical and practical significance of the research. The scientific results and proposals obtained in the dissertation can be used in measures to expand and improve the activities of banking and credit institutions in the regions of Azerbaijan. At the same time, there are opportunities to use the materials included in the dissertation in writing teaching materials and preparing lectures.

Approbation and usage. The topic of the dissertation work corresponds to the general direction of scientific research works at Sumgayit State University and was discussed and approved by the scientific council of the University among the current scientific issues of the modern era. According to the theme of the dissertation 11 scientific works of the applicant were published in prestigious local and foreign journals recommended by the Higher Attestation Commission including 6 articles and 5 theses, of which 1 article and 2 theses abroad

The name of the organization where the dissertation work was completed. The research work was performed at Sumgayit State University.

Structure and scope of the dissertation. The dissertation consists of an introduction (17987 characters), 3 chapters (Chapter I - 82535 characters, Chapter II - 74133 characters, Chapter III - 67845 characters) consisting of 9 paragraphs, a conclusion (15583 characters) and a list of used literature (25499 characters), with a total volume of 288713 characters. The dissertation contains 15 tables, 19 figures and a list of literature in Azerbaijani, Russian and English with 176 titles.

STRUCTURE OF THE DISSERTATION WORK

Introduction

Chapter I. Theoretical and methodological approaches to the role of banking and credit institutions in the development of the regional economy

1.1 Theoretical aspects of the interaction of the real economy and banking and credit institutions in the context of regional development problems

1.2 Methodological approaches to the activities of banking and credit institutions in the development of regions

1.3 World experience in the effective organization of the activities of banking and credit institutions in the processes of regional development

Chapter II. Current status and assessment of the activities of banking and credit institutions in the regions of Azerbaijan

2.1 Analysis of the current status of the activities of banking and credit institutions in the regions of the country

2.2 Assessment of the effectiveness of the activities of banking and credit institutions in the processes of regional socio-economic development

2.3 Increasing the role of banking and credit institutions in the revival of the Karabakh and East Zangezur economic regions

Chapter III. Prospects and directions for strengthening the activities of banking and credit institutions in the regions of Azerbaijan

3.1 Issues of strengthening the banking and credit infrastructure in the regions of the country and improving the activities of banking and credit institutions

3.2 Assessment of the potential of banking and credit institutions in the regions to operate on the basis of digital technologies

3.3 Directions for creating an efficient and accessible network of banking and credit institutions in the regions and organizing their activities

Conclusion

List of used literature

THE MAIN CONTENT OF THE WORK

In the introduction of the thesis, the relevance and degree of development of the topic, the object and subject of the research, goals and objectives, methods, the main theses to be defended, the scientific novelty, theoretical and practical importance, approbation and usage of the research were given

In the first chapter of the dissertation entitled "**Theoretical-methodological approaches to the role of bank-credit institutions in the development of the regional economy**", the theoretical aspects of the real economy and the interaction of bank-credit institutions in the context of regional development problems; methodological approaches to the activity of bank-credit institutions in the development of regions and the world experience of efficient organization of the activity of bank-credit institutions in the processes of development of regions were reviewed.

In modern times, the diversification and development of the economy, the inclusion of natural resources in the cycle of agriculture and economic growth, in short, the acceleration of the development of the economy in accordance with new challenges are important conditions. The role of banking and credit institutions in solving these issues is quite large. Banking and credit institutions, in addition to primarily solving credit investments in the economy, also provide crediting for various projects by preparing credit packages. For the implementation of these projects, long-term credit agreements are signed with entrepreneurs and business entities. In the regional context, it is very important to regulate the mutual activity of economic subjects and bank-credit institutions and to use the available resources effectively.

In his approaches to the development of the financial market and the influence of capital on the processes of economic development A. Smith, the founder of the classical economic school, considered: "*if the borrower uses the funds received as capital and is used in production processes, in the cycle of labor productivity, in this case, an extra income*

is added to its value".¹ From this point of view, we consider that there are enough issues to think about in the modern era. Thus, to direct the credit resources formed by banks and given to subjects of economic activity to the real economy areas and at the same time, to use these funds efficiently to create additional value are very important. Another prominent representative of the classical economic school, A.Marshall, justified the fact that *"the positive effect of capitalization in the economic cycle and the value formed by it is a superior element"*². In the current conditions, directing the required capital to various sectors of the economy, including real economy areas in the regions, and attracting financial and investment resources, will certainly allow accelerating regional economic activity and development processes. According to Nobel laureate R.M.Solow: *"Effective use of financial resources and credit resources has a positive effect on economic growth."*³

Despite these opinions, we also believe that the role of financial and credit resources in the realization of economic priorities and goals in the regions is great. In terms of the mentioned factors, bank-credit institutions perform important functions in these processes.

It should be noted that the problems of financing economic sectors, the formation of banking and credit services, and the provision of economic entities with accessible credit resources were investigated. Professor B.Kh. Atashov and a group of researchers report in their research on the finances of enterprises: *"Among the enterprise's financial relations, relations with the financial-credit system, that is, with budget and extra-budgetary funds, banks, insurance organizations, stock exchanges, and various funds, differ*

¹ Смит, А. Исследование о природе и причинах богатства народов. Издательская группа ЭКСМО, – 2019. – с.387.

² Marshall, A. Principles of Economics, 1890-1891. Palgrave Macmillan in the US is a division of St Martin's Press LLC, New York, Introduction © Peter Groenewegen, – 2013.– p.64.

³ Solow, R.M. A Contribution to the Theory of Economic Growth // The Quarterly Journal of Economics. – 1956, Vol.70, No.1, – p.84.

more."⁴ In addition to being in solidarity with the author on these issues, it is also possible to note that the role of banks in providing financial mechanisms in economic development processes is decisive in the current period. That is, if we do not consider financing from the state budget, bank loans perform important functions as another important source of financing. But prof. Z.F.Mammadova thinks that *"in the conditions of the market economy, the growth of economic entities leads to an increase in the range of services provided by banks. In turn, this forces banks to acquire qualitatively new, technically high-level communication and other technical means that ensure fast execution of payments"*⁵. Figure 1 shows a block diagram of the main and strategic functions in the management processes of bank-credit institutions.

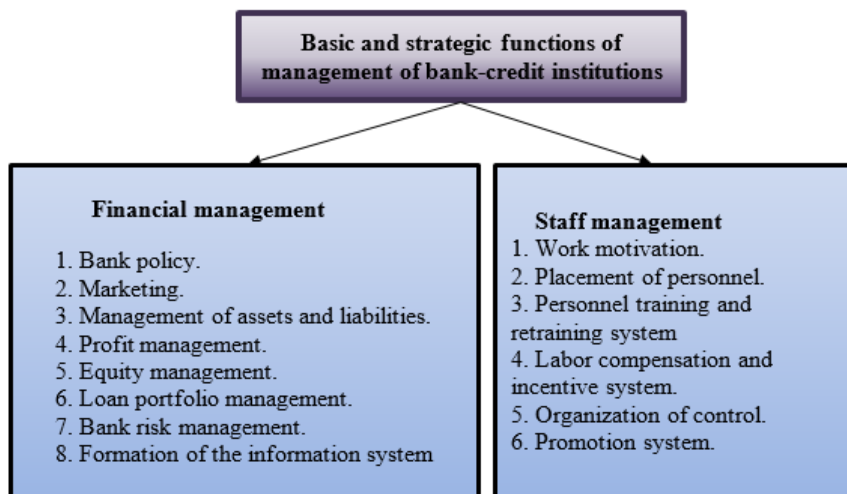


Figure 1. Block diagram of basic and strategic functions in the management processes of banking and credit institutions in modern times

Source: Prepared by the author

⁴ Ataşov, B.X. Maliyyə nəzəriyyəsi / B.X. Ataşov, N.A.Novruzov, E.Ə.İbrahimov – Bakı: Kooperasiya nəşriyyatı, – 2014. – 648 s.15.

⁵ Məmmədov, Z.F. Bank fəaliyyətinin əsasları. (Elmi-nəzəri və praktiki məlumat kitabı) / Z.F.Məmmədov. – Bakı: Azərnəşr, – 2013. – s. 71.

Let me mention one important issue that effective asset and obligation management act as an important element of banking management and credit institutions as a guarantor of its financial stability and profit maximization.

In Figure 2 from a theoretical-practical point of view, we have given the strategic role and goals of bank-credit institutions in lending the economy and ensuring socio-economic development in the regional context.

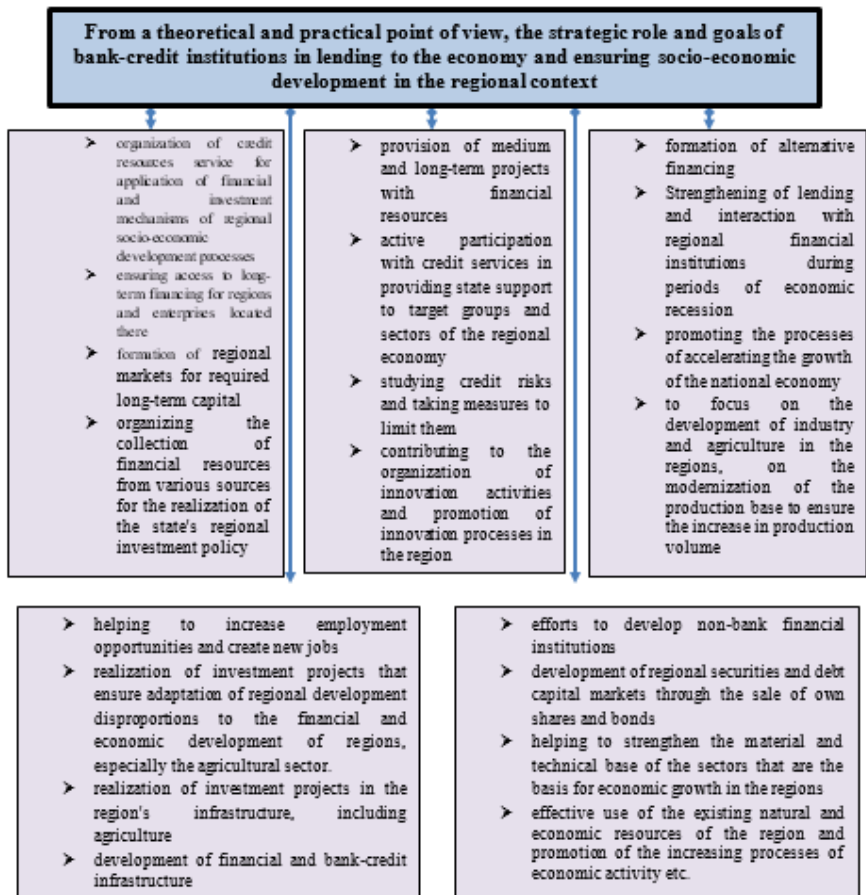


Figure 2. From a theoretical-practical point of view, the strategic role and goals of bank-credit institutions in crediting the

economy and ensuring socio-economic development in the regional context

Source: Prepared by the author

In addition to these, we consider that in order to have a favorable effect on the economic development of the regions, it is necessary to provide the appropriate infrastructure and conditions for the efficient organization and operation of the regional banking sector. Because the planned implementation of regional banking activity opens opportunities for the creation and commissioning of new infrastructure facilities while contributing to the activation of investment processes in the region, the development of production, agriculture and industry.

In Figure 3, a block diagram of methodological approaches for the efficient organization of the activities of bank-credit institutions in ensuring the development of regions. have provided

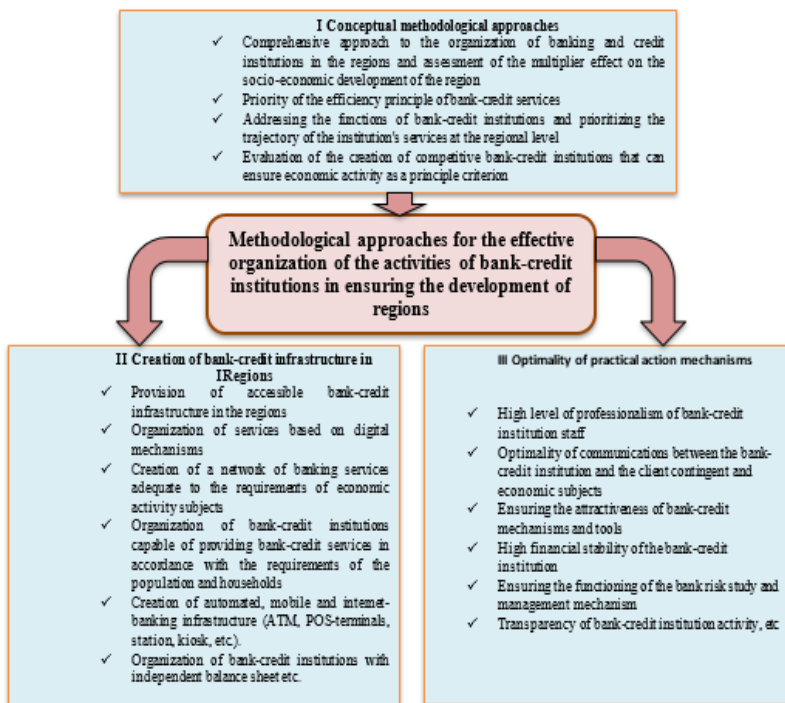


Figure 4. Block diagram of methodological approaches for effective organization of activity of banking and credit institutions in ensuring the development of regions

Source: Prepared by the author

It should be noted that we evaluated 3 main factors while examining the international experience. In other words, we have looked at examples of international experience that can be more useful for Azerbaijan in the example of specific regions and countries. Undoubtedly, the study of the experience of effectively organizing the activities of bank-credit institutions in the regions of the European Union (EU) countries, which have high financial capacity and resources and are distinguished by a strong banking system, is of interest.

One of the other reasons was to help the realization of the financing of state expenses. Such factors were the basis for the creation of Central Banks in the countries of the European Union, including England, Germany and France. In the structure of the German banking system, Deutsche Bank, the central bank of Germany which is part of AMBS, is at the top of the pyramid. "Deutsche Bank" participates in the tasks of AMBS, first of all, on maintaining price stability and ensuring domestic and international settlements.⁶ Additionally, let's note that "Deutsche Bank" is the largest banking concern in the country and Europe, including investment, commercial, mortgage banks and leasing companies. The bank represents its interests in more than 75 countries of Europe, America, Asia and the markets of developing countries.

We believe that it is more appropriate to study the effectiveness of state support mechanisms and stimulate the activities of bank-credit institutions in the development of regions in Turkey and apply them in our country. Thus, AzerTurk OJSC Bank (state-owned) is already operating in our country, and there are also a number of banks with Turkish capital (Ziraat Bank

⁶ Зарицкий, Б.Е. Роль банков и фондового рынка в экономике Германии. Финансовая аналитика, № 4/2018, – с.94.

etc.). While banks are indispensable elements for the development of the financial system in Turkey, loans and deposits are indispensable elements for the development of banking business. In order for banks to contribute more to the welfare of the society in which they live, they should provide as much credit as possible to producers and consumers. Economic development of regions in Turkey is possible with the support of state banks, national development and investment banks. There are 11295 branches in different regions of Turkey, including 3990 branches of state banks, 3710 branches of local private banks, and 3595 branches of foreign banks.⁷ The main role in the development of regions in Turkey belongs to the Regional Development Agencies and their main goal is to solve the problems of the regions by making the best use of their dynamic capabilities. From these functions, it can be seen that the Regional Development Agencies in Turkey are not executive but mainly have a supporting and coordinating role.

In the second chapter of the dissertation entitled "The current situation and evaluation of the activity of bank-credit institutions in the regions of Azerbaijan" the current state of the activity of bank-credit institutions in the regions of the country was analyzed, the efficiency of the activity of bank-credit institutions in the processes of regional socio-economic development was evaluated; Issues of increasing the role of bank-credit institutions in the revival of Karabakh and Eastern Zangezur economic regions were investigated.

It should be noted that bank branches in the region perform certain functions, at the same time, they accept deposits from the population and are engaged in providing loans for business projects, and mostly consumer loans. However, we believe that there is a very serious need to improve the activity of banking and credit institutions at the regional level for the development of real economy areas.

⁷ Emre Semih ÖRS. Türkiyede banka kredilerinin ekonomik büyüme üzerine etkisi. Aydın, – 2021, – 129 s. 80

In the table 1 the main indicators of the activity of banking and credit institutions in Azerbaijan were analyzed.

Table 1

The main indicators of the activity of banking and credit institutions in the Republic of Azerbaijan (2018-2023)

	2018	2019	2020	2021	2022	2023	2018-2023 +/-
Number of banks	30	30	26	26	25	23	-7
State banks	2	2	2	2	2	2	-
Private banks	28	28	24	24	23	21	-7
Number of bank branches	508	509	455	479	489	475	-33
Number of bank staff, amount	17415	19460	18708	20329	22870	23569	6154,0
Cash resources, million manats	1363,8	1531,5	1532,2	1803,2	1957,8	1877,0	513,2
Loan portfolio of banks, million manats, including	14900,9	15116,4	14157,0	16659,1	19594,4	23183,0	8282,0
Business credits	9031,6	9204,7	8478,3	9740,0	10855,1	12616,8	3585,0
Consumer credits	4075,3	4117,0	3661,2	4518,4	5754,1	6937,0	2861,7
Mortgage credits	1794,0	1794,7	20175	2400,7	2985,2	3629,2	1835,2
Number of bank branches	-	133	109	97	91	96	-37
Number of bank ATMs	-	2647	2715	2907	2997	3040	393

Source: Compiled by the author based on ARMB data. <https://www.cbar.az/page-188/credit-institutions> - calculated on the basis of.

The analysis of Table 1 suggests that the number of banks has been decreasing in recent years, compared to 2018, the number of banks has decreased from 30 to 23. It should be noted with regret that

the number of bank branches also decreased during that period. Considering that bank branches operate mainly in the regions, it is

Table 2

Analysis of credit investing to regions by banking and credit institutions in Azerbaijan in 01.01.2024 in national and foreign currency, thousand manats

Economic regions	Total	average % rate	Short term		Long term	
			In national currency	In foreign currency	In national currency	In foreign currency
	23 182 961	12,58%	3 007 661	807 990	15 808 468	3 558 842
Baku	17 736 016	11,09%	2 755 719	759 684	10 786 892	3 433 721
Nakhchivan	384 300	13,59%	10 405	34,5	373 419	440
Absheron-Khizi	848 675	15,88%	47 075	10 477	765 373	25 750
Mountainous Shirvan	160 180	19,68%	6 885	1,0	152 998	296
Ganja-Dashkasan	707 165	16,71%	35 622	4 288	652 112	15 143
Karabakh	404 983	19,27%	27 398	63	376 225	1 298
Kazakh-Tovuz	437 732	18,38%	20 803	1 667	407 847	7 414
Guba-Khachmaz	409 847	17,00%	13 518	6 096	373 617	16 616
Lankaran-Astara	545 720	19,03%	26 913	300	516 837	1 671
Central Aran	471 979	18,57%	19 147	1 629	449 567	1 637
Mil-Mugan	249 606	18,91%	15 330	226,4	232 094	1 955
Sheki-Zagatala	449 952	16,36%	17 967	23 447	367 300	41 238
Eastern Zangezur	-	-	-	-	-	-
Shirvan-Salyan	376 807	18,71%	10 878	78	354 187	11 664

Source: ARMB - <https://www.cbar.az/page-42/monetary-indicators#page-2>.

difficult to note the intensive development of the banking infrastructure in the economic regions of the country. We believe that in the regions of the country, bank-credit institutions with free balance and financial resources, industrial-financial groups of investment-innovation funds should be established and efficiently operated. In this case, the potential for increasing credit investments in the economy is formed.

The structure of credit investments in the country's economy is given by credit organizations, and it can be seen from here that the share of private banks in the total credit investment is close to 74%, and the share of non-bank credit organizations operating mainly in the regions is only 3.3%. The share of Baku city in the structure of the total credit investment is 76.3%. In some regions the average interest rate of credits is much higher, this indicator is close to 20% in the Nagorno-Shirvan economic region and 19.3% in the Karabakh economic region. A similar indicator is above 19% in Lankaran Astara and so on. In the conditions of such high interest rates, there is no question of credit availability and in this regard, systematic measures should be taken, and conceptual level approaches to the formation of affordable credit service packages in the regions should be provided (see table 2).

Table 3 shows indicators for ATMs and POS-terminals operating in Azerbaijan. 1491 or 47.9% of the 3112 ATMs operating in the country in 2023 operate in the regions. This states that there is a need to create and expand banking infrastructure in the regions.

When choosing the indicators for evaluating the activity of bank-credit institutions in the regional context, our attention was drawn to the relationship and interaction between banks and household members. Thus, in the regions, the population uses the services of banks to a greater extent. From this point of view, we have tried to determine the relationship between the use of banking services and the level of household income through regression analysis between banking transactions and household income among the population. The main purpose of such an analysis is to determine how banking activity affects the financial health of households.

Table 3

Analysis of indicators for ATMs and POS-terminals operating in Azerbaijan, 2012-2023, number

Years	ATMs	including:		POS-terminals	Total POS-terminals		Self-service terminals	including:	
		Bakıda	Regionlarda		Bakıda	Regionlarda		Baku	Regions
2012	2260	1263	997	36860	33629	3231			
2013	2422	1366	1056	33285	28940	4345			
2014	2608	1471	1137	73013	50050	22963			
2015	2694	1502	1192	80301	48944	31357			
2016	2471	1332	1139	71959	40534	31425	1289	730	559
2017	2461	1326	1135	65637	37091	28546	1460	819	641
2018	2563	1350	1213	66454	39069	27385	1550	847	703
2019	2712	1446	1266	67681	40988	26693	1648	908	740
2020	2779	1454	1325	57344	37707	19637	1928	1059	869
2021	2970	1585	1385	61179	40672	20507	1845	960	885
2022	3068	1591	1477	79820	53820	26000	2029	1106	923
2023	3112	1621	1491	86383	57054	29329	2106	1030	1076

Source: ARMB - <https://www.cbar.az/page-45/payment-system-indicators>.

Table 4

ATM and POS-terminals operating in the economic regions of Azerbaijan, 01.01.2024, numbers

Economic regions	Number of ATMs	Number of POS-terminals		Number of self-service terminals
		Total	including: contactless payments	
Total, by country	3 112	86 383	82 992	2 106
Baku	1 621	57 054	55 383	1 030
Nakhchivan	133	2 177	1 669	147
Absheron-Khizi	210	5 311	5 070	135
Mountainous Shirvan	53	1 272	1 226	43
Ganja-Dashkasan	161	3 704	3 539	93
Karabakh	112	1 774	1 698	71
Kazakh-Tovuz	131	2 186	2 088	65
Guba-Khachmaz	111	2 631	2 499	111
Lankaran-Astara	110	2 371	2 295	85
Central Aran	139	2 569	2 486	104
Mil-Mugan	86	1 090	1 024	48
Sheki-Zagatala	136	2 787	2 647	91
Eastern Zangezur	10	53	40	2
Shirvan-Salyan	99	1 404	1 328	81

Source: ARMB - <https://www.cbar.az/page-45/payment-system-indicators>.

82992 or 96.1% of 86383 POS-terminals operating in economic regions of the country accept contactless payments (see table 4).

The purpose of the analysis: to determine whether there is a statistically significant relationship between the volume of banking activity (for example, the use of loans, deposits, transactions) and household income. Increased use of banking services can be attributed to higher income levels due to better financial management, access to credit and investment opportunities. The initial database of the regression analysis is reflected in table 5.

Table 5

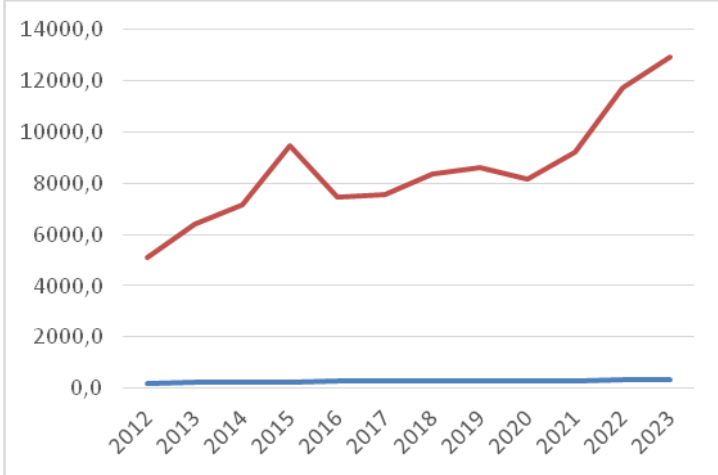
The volume of deposits of the population in banks in Azerbaijan (at the end of the year, million manats)

Indicator	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2012-2023 +/-
Deposits of the population in banks, including:	5												
in national currency	1 1 3 4	6 395, 888, 8	7 188, 422, 4	9 473, 420, 2	7 448, 517, 3	7 561, 532, 9	8 375, 142, 2	8 637, 132, 7	8 177, 027, 1	9 241, 452, 2	11 743, 139, 4	12 947, 646, 1	2,53 over
in foreign currency	2 1 4 9 6	2 507, 5	2 766, 0	8 053, 7	5 931, 4	5 028, 3	5 233, 2	4 505, 2	4 150, 8	3 789, 3	4 603, 6	4 301, 7	2 over
Growth of savings, with interest	1 2 4 1	125, 1	112, 4	131, 8	78,6	101, 5	110, 8	103, 1	94,7	113, 0	127, 1	110, 3	- 12,5 %

Source: ARMB - <https://stat.gov.az/source/finance/>

	Income - total	Savings of the population in banks
2012	190.9	5,113.40
2013	214.7	6,395.80
2014	230.0	7,188.40
2015	240.5	9,473.90
2016	257.8	7,448.70
2017	268.4	7,561.20
2018	276.0	8,375.40
2019	292.6	8,637.90
2020	291.4	8,177.90
2021	300.6	9,241.50
2022	327.6	11,743.00

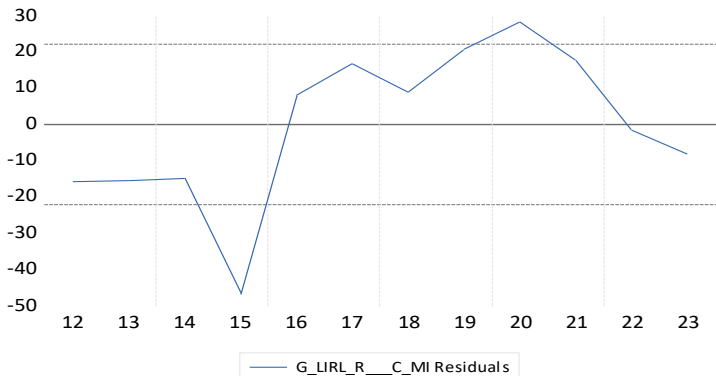
2023	343.2	12,947.80
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Dependent Variable: SERIES01
Method: Least Squares
Date: 11/14/24 Time: 20:03
Sample: 2012 2023
Included observations: 12

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SERIES02	0.018497	0.003092	5.982762	0.0001
C	111.7855	27.12550	4.121049	0.0021

R-squared	0.781628	Mean dependent var	269.4792
Adjusted R-squared	0.759791	S.D. dependent var	45.28380
S.E. of regression	22.19410	Akaike info criterion	9.188542
Sum squared resid	4925.781	Schwarz criterion	9.269360
Log likelihood	-53.13125	Hannan-Quinn criter.	9.158620
F-statistic	35.79344	Durbin-Watson stat	1.985352
Prob(F-statistic)	0.000135		



Note that the regression model can be represented by the following equation:

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

Here, Y- is household income (Income); X - volume and frequency of bank transactions (SPB); -free period (intersection with Y axis); β_1 - regression coefficient showing how much the change in bank operations affects the income;

ε is a random error reflecting the influence of other unaccounted factors.

$$\text{Income} = 0.018497 \text{ SPB} + 111.785$$

(0.003) (27.125)

Here, β_0 is quite small (0.018497), which may indicate that there is an effect of bank operations on income. This may indicate that there are other factors affecting household income. The P-value for this coefficient is 0.0001, which is well below the 0.05 significance level. This suggests that the coefficient is statistically significant and it can be argued that the relationship between bank transactions and income is not random.

It represents the value of household income when the level of fixed bank transactions is zero. In this case, if there are no banking transactions, the average household income is 111,785 units. Although this scenario may be theoretical, it gives an idea of the basic level of income without the effect of bank transactions. Here, the P-value is 0.0021, which is less than 0.05 indicating its statistical significance.

To compare the impact of banking operations with the impact of other factors on income, we define elasticity as follows:

$$E_1 = 18.497 \times \frac{8.525}{269.48} = 0.585$$

Based on the maximum elasticity coefficient $E_1=0.585$, we conclude that the X1 factor has the greatest influence on the Y result. The statistical significance of the equation was tested using the coefficient of determination and the Fisher test. It was found that 78.16% of the total variation in Y in the studied situation is explained by the variation of X1 factors.

According to the matrix of pairwise correlation coefficients, all coefficients are $|r|<0.7$, which indicates the absence of multicollinearity of the factors.

The coefficients of the model show that there is a positive relationship between banking activity and household income. Active use

of banking activities by the population leads to a slight increase in income. The statistical significance of the coefficients confirms that the results are not random and reflect real dependence in the data.

Along with these, we believe that increasing the efficiency of the processes of improving the activity of bank-credit institutions at the regional level is very relevant in modern times. Thus, bank-credit institutions can play an exceptional role in the restoration and socio-economic development of territories freed from occupation after the Great Karabakh Victory.

In Figure 4, we have prepared a block diagram of factors for evaluating the efficiency of bank-credit institutions and problems that slow down the expansion of lending in regional socio-economic development processes.

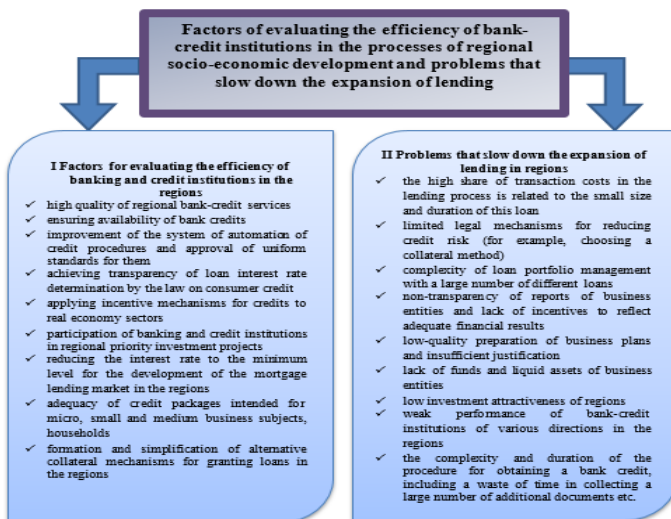


Figure 4. Block diagram of factors for evaluating the efficiency of bank-credit institutions in the processes of regional socio-economic development and problems that slow down the expansion of lending

Source: Prepared by the author

Taking into account that the volume of investments directed to the revival of Karabakh and Eastern Zangezur has increased sharply

(ten times) in the last two years, the creation of bank-credit institutions, their branches and departments should be one of the main priority directions. For these or other reasons it is necessary to prepare and implement the Development Concept of bank-credit institutions for the revival of Karabakh and Eastern Zangezur regions.

In the third chapter of the dissertation, entitled "**Perspectives and directions for strengthening the activity of bank-credit institutions in the regions of Azerbaijan**", the issues of strengthening the bank-credit infrastructure and improving the activity of bank-credit institutions in the regions were considered, the potential of bank-credit institutions in the regions based on digital technologies was evaluated and the creation of effective and accessible network of bank-credit institutions have been determined.

In order to increase the role of bank-credit infrastructures in the development of the region's economy, it is necessary to ensure **the development of the concept of strengthening the stability of the bank-credit system for the medium term**. The concept should include the main strategic directions of sustainability based on the consideration of the maximum number of factors. In addition, it is necessary to create an effective mechanism of state regulation of the banking and credit sector of the economy. It is advisable to strengthen the foundations of the financial stability and security of the banking-credit system through the strict control of financial operations in the banking-credit sector, the regulation of the credit policy of commercial banks, the insurance of deposits and the application of strict settlement and payment discipline.

Realization of comprehensive development tasks of the region is impossible without analytical research and assessment of performance indicators of the regional bank-credit sector and determination of its development trends.⁸

The block diagram of the main components of the Strategy for the creation and development of an efficient and accessible network

⁸ Кетова, И.А. Анализ и оценка показателей активности банковского сектора региона / И.А. Кетова // Деньги и кредит. – 2014. № 11, – с.48.

of bank-credit institutions in the regions of the Republic of Azerbaijan (see Figure 5).



Figure 5. the main components of the Strategy for the creation and development of an efficient and accessible network of bank-credit institutions in the regions of the Republic of Azerbaijan

Source: Prepared by the author

Taking into account what is mentioned in Figure 5, all these can make certain contributions to strengthening the role of bank-credit institutions in the socio-economic development of the regions. Along with these, we consider it important to implement a number of measures to strengthen the role of bank-credit institutions in the regions of the country:

1. In order to accelerate the socio-economic development of the regions and to increase the economic activity at a significant level, in addition to the funds allocated from the state budget, it is necessary to ensure the implementation of measures and projects for the maximum efficient use of credit resources of bank-credit institutions.

2. The service areas of commercial banks in the regions should be precisely defined and priorities of strategic activities should be determined. For example, when granting a loan, its sphere first of all, the factors determining the socio-economic development of the region should be taken into account and the multiplier effect should be calculated.

3. Regional bank-credit institutions should focus on supporting local agricultural and industrial sectors facing a lack of financial resources, supporting micro, small and medium businesses, including the implementation of priority projects in the region.

4. Collateral mechanisms related to granting loans in regional bank-credit institutions should be maximally simplified and regulated, the leasing lending mechanism should be widely used to solve the collateral problem, and measures should be taken to protect regional bank-credit institutions from risks etc.

THE MAIN RESULTS OF THE DISSERTATION WORK

1. The participation of the state in the authorized capital of regional bank-credit institutions can increase the level of public trust in banks, activate the inflow of deposits, strengthen their resource base and raise the level of competition in regional banking. For this, the legislative framework for the development of bank-credit institutions in the regions should be improved.

2. In order to speed up the socio-economic development of the regions and increase the economic activity to a significant level, along with the funds allocated from the state budget, measures and projects for the maximum efficient the use of credit resources of bank-credit institutions should be ensured.

3. The service areas of commercial banks in the regions should be clearly defined and priorities of strategic activities should be determined. For example, when granting a loan, its sphere, first of all, the factors determining the socio-economic development of the region should be taken into account and the multiplier effect should be calculated.

4. Collateral mechanisms related to granting loans in regional bank-credit institutions should be maximally simplified and regulated, the leasing lending mechanism should be widely used to solve the collateral problem and measures should be taken to protect regional bank-credit institutions from risks etc.

5. In the regions of Turkey, bank-credit institutions perform important functions in terms of the functioning of the economy, the collection of the population's savings and their distribution to the areas of use. Bank-credit institutions provide the necessary and extremely important fund flow for the development of the economy. One of the monetary policy mechanisms they use most when they mediate the transfer of funds is lending. Lending is one of the main channels of the money transfer mechanism. Close cooperation between Development Agencies and bank-credit institutions operating in the regions of Turkey is noteworthy.

6. When establishing bank-credit institutions in Karabakh and Eastern Zangezur, first of all, attention should be paid to the following so that they can help the revitalization of those regions: it is very important to take into account the interests of the local population and entrepreneurs in solving the problems of the economic regions of Karabakh and Eastern Zangezur. In these regions, regional projects should be implemented not only at the expense of budget funds but also at the expense of bank-credit institutions that should be created to solve regional problems.

7. Based on the maximum priority of the socio-economic development of the regions in our country and taking into account the need for reliable and alternative financial and credit resources for the revitalization projects of territories freed from occupation in the next decades, including the constituent elements we proposed at the beginning, "In the regions of the Republic of Azerbaijan in 2026-

2030 We consider it expedient to adopt and implement the "Strategy for the creation and development of an efficient and accessible network of banking and credit institutions" etc.

THE MAIN RESULTS OF THE DISSERTATION ARE REFLECTED IN THE FOLLOWING PUBLISHED SCIENTIFIC ARTICLES:

1. Bank-kredit müəssisələrinin fəaliyyətinin təşkili və gücləndirilməsinin nəzəri-metodoloji aspektləri//AMEA-nın Xəbərləri. İqtisadiyyat seriyası, Bakı., İqtisadiyyat İnstitutu, – 2021. № 04, – s.142-150.
2. Azərbaycanın regionlarında bank-kredit müəssisələrində rəqəmsal texnologiyaların tətbiqinin genişləndirilməsi istiqamətləri / AR Təhsil Nazirliyi Sumqayıt Dövlət Universiteti “İnformasiya cəmiyyətində iqtisadiyyatın davamlı inkişaf problemləri” Beynəlxalq elmi konfransın materialları, – Sumqayıt, – 16-17.12–2021-ci il, –c. 368-371.
3. Azərbaycanın regionlarında bank-kredit müəssisələrinin fəaliyyətinin gücləndirilməsi yolları // – Bakı: Geostrategiya jurnalı, – 2022. № 01, – s.76-81.
4. Regionlarda bank-kredit müəssisələrinin fəaliyyətinin təşkilinin müasir problemləri // AMEA-nın Xəbərləri. İqtisadiyyat seriyası, – Bakı: İqtisadiyyat İnstitutu, – 2022. № 05, – s. 84-93.
5. Rəqəmsal transformasiyalar şəraitində regionlarda bank-kredit müəssisələrinin fəaliyyətinin gücləndirilməsi yolları /Sumqayıt Dövlət Universiteti və Yıldız Texniki Universitetinin birgə təşkilatçılığı ilə “Azərbaycan və Türkiyənin iqtisadi əməkdaşlığının strateji istiqamətləri” mövzusunda Beynəlxalq elmi konfransın materialları, – Sumqayıt, – 26–27 may 2022-ci il, – s. 18-21.
6. Regionlarda bank-kredit müəssisələrinin fəaliyyətinin təşkili və tənzimlənməsi yolları // İnnovasiyalı iqtisadiyyat və menecment, – Gəncə: ATU, – 2023. № 01, –

s.274-280.

7. Regionlarda bank-kredit müəssisələrinin fəaliyyətinin təkmilləşdirilməsi // – Bakı: Geostrategiya jurnalı, – 2023. № 01, – s. 154-158.
8. Qlobal çağırışlar şəraitində regionlarda bank-kredit müəssisələrinin fəaliyyətinin təşkili prioritetləri / Ümummilli Lider Heydər Əliyevin anadan olmasının 100 illiyinə həsr olunmuş “Dövlətlərarası iqtisadi əlaqələr: müasir çağırışlar və perspektivlər” mövzusunda Beynəlxalq elmi konfransın materialları, – Sumqayıt, 25–26 may 2023-cü il, – c. 202-204.
9. Актуальные проблемы эффективной организации банковско-кредитных предприятие в регионах //Журнал «Финансовая экономика», ВАК Россия, Москва, – 2024. № 02, –с. 118-122.
10. Пути совершенствования банковско-кредитных предприятие в регионах Азербайджана / Материалы III Международной научно-практической конференции «Трансформация Российской науки в эпоху информационного общества» (шифр – МТОИ), – 21 февраля 2024, – с. 34-41.
11. Важные аспекты развитие банковско-кредитных учреждений в регионах Азербайджана / Материалы XIV Международной научно-практической конференции «Устойчивое развитие общества: Новые научные подходы и исследования» (шифр – МУРО), – 16 января 2025, – с. 100-107.



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