

Strategy to Increase the Efficiency and Sustainable Development of Commercial Banks

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Abstract - The article addresses the issues of strategies to increase the efficiency of commercial banks and ensure sustainable development. The author has econometrically modeled the characteristics of the banking sector, assuming that deposits are variable as a cost, and in the analysis of the efficiency of the country's banking system, three costs and three performance indicators have been obtained.

Keywords: Bank, bank transfers, credit, strategy, bank development, management effectiveness.

I. INTRODUCTION

The process of integration of national banks into global financial systems is multifactorial and rapidly changing, so it is necessary to use quantitative and qualitative analysis in its study. In particular, it is important to bring the stability and liquidity of the banking system to international standards.

In the current situation, banks are increasingly becoming financial institutions that not only perform pure banking operations, but also provide financial services, which is not reflected in the bank's balance sheet, but brings a very large profit.

Problems of efficiency and sustainable development of commercial banks were researched by DeYoung, Robert [1], Jumaev N.H. [3], Felsenheimer J., [4], Van Grüning X. [5], Sh.Hefferman [6] and other economists.

As financial intermediaries, banks need to mediate in the transfer of funds from creditors to borrowers and from sellers to buyers. In addition to banks, the transfer of funds in the markets can be carried out by other financial and credit-financial institutions: investment funds, insurance companies, brokers, dealerships and so on. However, banks, as a financial market entity, differ from other entities by the following characteristics:

First, banks are characterized by a two-way exchange of debt obligations (inherent): they form their own liabilities (deposits) and place the attracted funds in debt obligations, securities (securities issued by others);

Second, banks assume unconditional obligations to legal entities and individuals for a fixed amount.

In other words, this process is called "quantity transformation" of banks. This means that in some cases, lenders lack funds. That is, the lender wants to lend for a short period of time. The borrower, on the contrary, wishes to have a fund for the project or investment period. Banks solve this problem by offering long-term loans by offering short-term deposits. This process is called "time transformation" of banks.

Third, the need for banks is to transform risks. Because lenders like low-risk assets, borrowers require high-risk funds. To do this, banks impose interest rates on borrowers on a contractual basis. Two categories of risks need to be considered here: default and price risks. Default risk is defined as the inability of borrowers to pay interest rates, repay or repay a loan, or make both payments. [7]

Banks in developed countries are experiencing three trends in terms of changing their activities and implementing banking strategies. They are:

- 1) deregulation or liberalization;
- 2) creation and implementation of financial innovations;
- 3) strengthening the integration of national banks into world financial markets, taking into account the process of globalization.

These trends are interrelated without denying each other. As a result of the removal of the limits on interest rates on deposits under the influence of liberalization of banks, variable interest rates are being introduced for new "financial innovative" deposits. Liberalization has also led to the development of domestic banking services of international banks.

II. ANALYSIS AND RESULTS

Interest rates on deposits are set higher than on loans due to the fact that the government of Uzbekistan reduces the tax burden on various funds on deposits or provides a general concession. This feature of the banking sector is taken into account in our model and deposits are considered as variable. In the analysis of the efficiency of the banking system of Uzbekistan, we obtained three costs and three performance indicators.

Cost A: Operating expenses

Cost B: Fixed capital

Cost C: Total deposits

Income: Total loan amount

Result 2: Gross income

Result 3: Income without other interest (after deducting commission income)

In order to show the costs incurred by the banks, their operating costs and the amount of fixed capital were obtained. The selection of results provided for the diversification of banks and the provision of various types of services.

Table 1 Performance indicators of commercial banks

Costs		Results			
Permanent capital		Total loans			
Operating expenses		net income			
Total deposits		Other interest-free income (Dividends from Forex transactions)			
Efficiency in a cost-effective econometric model					
No.	Name of banks	2013	2014	2015	Average amount
1.	Rural construction bank	0,58	0,64	0,83	0,71
2.	Aloqabank	0,86	0,72	0,65	0,70
3.	Microcredit bank	0,87	1,00	1,00	0,96
4.	Agrobank	0,96	0,87	0,81	0,84
5.	Silk Road Bank	0,82	0,74	0,76	0,77
6.	Ipotekabank	0,87	0,78	0,82	0,84
7.	Kapitalbank	0,9	0,75	0,73	0,75
8.	Hankorbank	0,67	0,91	0,93	0,91
9.	National Bank	0,82	0,95	0,96	0,96
10.	Soderat (Iran)	0,88	0,91	0,98	0,97
11.	Trustbank	0,75	0,71	0,77	0,75
12.	Turkiston	0,90	0,93	0,98	0,97
13.	Turonbank	0,78	0,74	0,87	0,81
14.	Universalbank	0,88	0,90	0,92	0,94
15.	UT bank	0,77	0,68	0,88	0,78
16.	O'zKDB	0,99	0,98	0,97	0,98
17.	Industrial construction bank	1,00	0,94	0,74	0,88
18.	Asaka bank	0,98	0,97	0,95	0,96
19.	Ravnaqbank	0,87	0,64	0,75	0,75
20.	Merchant	0,83	1,00	0,87	0,90
21.	Period bank	0,74	0,77	0,81	0,79
21.	Average amount	0,87	0,83	0,82	0,85

Source: author`s elaboration based on data for www.cbu.uz

At the same time, losses on repayment of possible loans were excluded from the total amount of loans. This shows the measurement of the level of risk in banks. Information on the activities of banks was obtained from the newspaper "Bank Information". We then used two categories of computer programs, DeaFrontier and DEAOs (online) to solve the model.

Findings from the study. We do not take into account the scale effect when we use the CCR model based on cost analysis, and only the bank efficiency scores are given in Table 6.

Banks with a score of less than 1 have the potential to increase revenue. For example, ABN-AMRO means that the bank's score is 0.81 and it can increase its income by 19% (1-0.81). According to 2013 data, it can be concluded that 6 out of 20 banks are highly efficient. It should be noted that the efficiency of Samarkand Bank is very low (score 0.55). As noted in the previous paragraphs, we used two different models in determining the efficiency of banks. As a result of a partial modification of the MKU model, we create a BCC model, which takes into account the scale of the banks. The effect evaluated as a result of this model is called the technical efficiency. In the CCR model, scale and technical efficiency are combined. In general, differences in their relative effectiveness can be observed when the results are close to each other in both models. Based on the results of both models, it can be said that the three banks (ABN AMRO, Ipotekabank and Uzpromstroybank) are technically efficient but do not take full advantage of the scale effect. In other words, their scale does not match the amount of work they do and the cost. Of the 23 banks we analyzed, 17 had a scale-down efficiency trend, and 6 had an effective growth trend.

Table 2 Level of efficiency of commercial banks of the Republic of Uzbekistan

№.	Name of banks	Efficiency coefficient.	Back to the scale
1	Rural construction bank	0.83	decline
2	Aloqabank	0,70	decline
3	Microcredit bank	1,00	decline
4	Agrobank	1,00	decline
5	Silk Road Bank	0,70	decline
6	Ipotekabank	1,00	decline
7	Kapitalbank	0,65	decline
8	Hamkorbank	1,00	decline
9	National Bank	1,00	decline
10	Soderat (Iran)	1,00	decline
11	Trustbank	0,59	increasing
12	Turkiston	1,00	increasing
13	Turonbank	0,87	decline
14	Universalbank	0,95	decline
15	UT bank	0,91	increasing
16	O'zKDB	1,00	decline
17	Industrial construction bank	1,00	decline
18	Asaka bank	0,87	increasing
19	Ravnaqbank	0,58	decline
20	Sabdogar bank	0,82	decline
21	Davr bank	0.82	increasing

Source: author's elaboration

The results of the study show that in 2013-2015, the average efficiency ratio for private banks (equal to 0.92) was 5% lower than for joint-stock banks, while in foreign banks it was 6% lower than for joint-stock banks. However, as a result, the probability coefficients are less clear. Therefore, it is difficult to assess the relative efficiency of banks using the above model. According to the results of the model, it can be said that the efficiency of banks depends on their size. In particular, the difference between the efficiency ratios of medium and large banks is large. This means that the efficiency of large banks is much higher than that of small and medium banks and there is a positive correlation between efficiency and scale. This is consistent with other studies in the banking sector.

In developed countries, the CAMEL (Capital-Assets-Management-Earnings-Liquidity) method is widely used to determine and rate the efficiency of banks. The essence of this method is that in the management and development of commercial banks it is recommended to pay special attention to the level of capitalization and suitability of existing banks, the amount and composition of assets, quality of management, level of income (profit) and liquidity. Hence, the efficiency of banks depends on the ordering of financial divisions in their assets

and liabilities, risk reduction, the introduction of competitive strategies. In this regard, if the purpose of a commercial bank (Θ) (profit) is to alternate, it depends on several factors and can be described mathematically as follows:

$$(\Theta) = f(BC, BA, BM, BE, BL)$$

Here: BC - bank capitalization level management; VA - bank asset management; VM - quality of bank management; BE- bank income management; BL - bank liquidity management. [1]

To determine the development of commercial banks of the Republic of Uzbekistan for the next fifteen years (2002 - 2016) and the effectiveness of operations management, a linear regression equation was developed. [2]

$$\text{Linear (BM)} = \alpha + \alpha_1 BC + \alpha_2 BA + \alpha_3 BE + \alpha_4 BL$$

here $\alpha_0, \alpha_1, \alpha_2, \alpha_3, \alpha_4, \alpha_5$ s are the parameters of the model and they are calculated using the least squares method.

$$(\text{BM}) = 0.443 + 0.123*BC + 0.267*BA + 0.195*BE + 0.112*BL$$

$$R^2 = 0.766 \quad F=55.4$$

The above model shows that the efficiency of commercial banks of the Republic of Uzbekistan depends on the four factors listed above. Therefore, if we increase the level of capitalization in commercial banks by one percent without increasing other factors, the management rating increases by 0.123 units, bank assets by one unit (million soums) by 0.267 units. if we increase the net income by one unit, it will increase by 0.195 units, and if we increase the liquidity level by one unit, it will increase by 0.112 units.

III. DISCUSSION OF RESULTS

The results of the study also show that the net income of the banks under study has a positive impact on the issuance of securities, the level of intangible assets and the amount of liquid assets of the bank, but the amount of receivables has a negative impact, including if the banks issue securities for one million soums. Without changing other factors, the increase in banks' income by 1.6 million soums, an increase in intangible assets by 87,000 soums, an increase in liquid assets by 191,000 soums will lead to an increase in profits. Also, according to the second line model, the structure of capital investment of commercial banks, interest payments on securities positive but had a negative impact on the amount of bank loans. This means that the management of receivables and bank credit management in the analyzed banks is not well established. It is important to increase the level of capitalization in commercial banks, to invest in real sector enterprises and the introduction of advanced technologies, to support innovative development, to formulate credit policy in line with structural changes in the economy. At the same time, it is necessary to strengthen banks with highly qualified personnel, strengthen their material and moral incentives, differentiate and diversify the content of the bank's products and services, improve the quality of customer service, reduce costs through efficient use of internal resources.

Speaking of innovation activity, it should be noted that it is, first of all, any positive innovation and change in the production process and its management. These changes are aimed at production, first of all, the introduction of advanced technologies, new scientific advances, improving farm management, reducing direct and indirect costs per unit of output.

In our opinion, in order to have the most complete picture of innovation activity, to determine its level, it is necessary to conduct a comprehensive analysis of innovation process indicators, innovation process quality indicators and indicators that encourage employees to innovate. It is important to select and analyze this group of indicators to characterize the level of innovative activity.

The application of modern management methods in the development and implementation of government programs aimed at the management of sectors of the economy on the basis of innovative activities is very effective. In our opinion, this management should consist of several stages and be completed by selecting the most optimal option. For effective management of innovation it is necessary to solve the following tasks: to combine the purpose of innovation management with the purpose of small business management, to identify the competitiveness and strengths and weaknesses of the enterprise, analytical, experimental, forecasting, economic, administrative, socio-psychological methods of innovation management should be widely used in management.

The main purpose of the state support of innovative activities is to encourage progressive innovations in the real sector and services, as well as in the activities of banking and financial enterprises, to increase the competitiveness of industries and enterprises.

The main functions of the banking system in the field of innovation include the accumulation of funds for research and innovation, coordination of innovation activities, promotion of innovation and competition, insurance of innovation risks, sanctions for obsolete or substandard products, development of legal framework for innovation processes, copyright protection, innovation activities. staffing, the formation of innovation infrastructure, the creation of institutional support for innovation processes in the industry, ensuring the social orientation of innovation, increasing the status of innovation in society, etc. Such innovative technological tools in banking include the CASH BACK program.

Its function is often similar to the functional obligation of co-branding cards. CASH BACK is a banking program used in the field of e-commerce to attract new customers.

Global and local experience shows that the priorities of state support include the development of scientific research, copyright protection, the creation of a competitive environment, the promotion of innovation investment and the improvement of the information base. In our country, the state pays high attention to these aspects and all conditions are created in the industry for the development of innovative activities. [8]

We have chosen the principle of innovative openness and technological comparability of all sectors of the national economy as a strategic principle of innovation policy formation. Long-term sustainable economic development can only be achieved in systems that are internally integrated and balanced, characterized by a wide range of innovations, from high-tech manufacturing to the provision of traditional services.

IV. CONCLUSIONS AND RECOMMENDATIONS

1. Increasing the level of capitalization and liquidity of joint-stock companies, in particular, the sustainable development of the banking system, improving the lending mechanism, reducing the level of risk in all categories. This problem also applies to banks operating in the Republic of Uzbekistan, including commercial banks. An in-depth study of the activities of commercial banks in developed countries has identified opportunities for further development of "contract banks", the creation of new types of banking services and their diversification. In particular, using the positive experience of European banks, it is expedient to introduce new services in commercial banks of the country to meet customer requirements, such as "repurchase agreements", "credit line review", "bank guarantees". The introduction of "sale of debt participation", "syndicate debt agency", "brokerage / agency" and "payment services" would create great opportunities for the development of small business and private entrepreneurship.

2. Application of innovative management technologies in commercial banks operating in the banking market of the country, introduction of principles such as "seven es", "business wheel", which are among the new effective concepts of management to improve the management system of a commercial bank on the basis of management development. clearly define the future, goals, objectives, strategies and tactics and convey that information to the customers.

3. Along with the reforms being carried out by banks in the economy, practical work should be continued to ensure that their modern management system is in line with the requirements of the time and fully meets the requirements of world standards. In attracting free funds of the population to banks, investing in effective projects, managing bank assets, improving banking operations:

- Improving the system of regulation and supervision of commercial banks on the basis of international standards and norms, including new recommendations of the Basel Committee on Banking Supervision (Basel III);

- strengthening the financial stability of the banking system by further increasing the level of capitalization and liquidity of banks, expanding and diversifying the deposit base, further improving the quality of assets, including the loan portfolio;

- implementation of off-balance sheet operations, diversification of business activities, along with on-balance sheet operations of commercial banks;

- further strengthening the role of banks in economic development, expanding their participation in investment processes;

- further intensification of operations to provide financial support to small business and private entrepreneurship and reduce business risk;

- Differentiation and diversification of banking services based on the experience of world banks and further improvement of service quality, in particular, development of banking infrastructure, especially in rural areas, further expansion of remote banking services with the widespread use of information and communication technologies. In particular, innovative technological tools in banking: extensive use of programs such as Cash Back, Personal manager, Cobranding; experience of developed countries, including the optimization of the business portfolio of banks, the formation of internal rankings, the widespread use of economic mathematical methods in assessing the effectiveness of banking operations, the introduction of information communications, the use of computer programs;

- It is recommended that commercial banks of the country further improve the legal framework of the financial and banking system on the basis of international standards and principles in order to obtain high ratings from leading international rating agencies.

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