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PERFORMANCE INDICATORS OF BANKING SECTOR IN BANGLADESH: A COMPARATIVE OVERVIEW OF NCBs, PCBs, SCBs & FCBs

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Abstract

The commercial banks like NCBs, PCBs, SCBs & FCBs have been playing a commendable role in achieving the economic growth of Bangladesh. Default culture in many of the banks is a chronic problem. The object of the study is to focus on the performance indicators of banking activities of Bangladesh through highlighting their profitability & productivity during 1996-2005. Two hypotheses based on the said objectives have been tested. The findings of the study reveal wide fluctuation in interest rates, recovery rates, stuck-up advances, cost of fund, profitability, productivity, earning rates etc. Reduction in stuck-up advances, extensive use of working fund, reducing costs, covering the cost of fund, raising earnings, productivity, implementation of recently developed FSRP of the Ministry of Finance, preventing money laundering activity etc. are demanded to maximize the role of commercial banks in economic advancement of Bangladesh. With the recent market economy concept, introduction of modern technology of banking sector, there is severe competition in the world-banking environment. This also requires prudent use of bank fund through developing strategic plans & policies based on modern information technology & global knowledge.

Introduction

The banking system, as it existed in preliberal period, suffered from a number of weaknesses and limitations. The shortcomings were duly recognized and clearly spelt out by the Credit Equity Commission (1959) and the Planning Commission (1970). A few business houses controlled the whole credit program to suit their needs and as a result the whole economy was mortgaged to 20 to 22 families, who controlled 66 percent of total industrial assets, 70 percent of insurance funds and 80 percent of bank assets.1 In the post-liberation period, the Government of Bangladesh inherited a large number of financial institutions which were abandoned by their Pakistani owners. In the financial sector of the economy, a vacuum was created by the departure of their owner entrepreneurs, leading to the take over of banks by the Government. Banks in Bangladesh were nationalized through the Bangladesh Bank (Nationalization Order) on 26th March 1972. The order of nationalization was passed by the parliament. Six new Nationalized Commercial Banks (NCBs) were created by reorganizing 12 banks, which were privately owned. In 1983, Bangladesh Government took a decision to denationalize two nationalized commercial banks (NCBs), namely, Uttara Bank (UB) and Public Bank (PB). These banks were converted into Public Limited Company in June 1983. Seven more private commercial banks started functioning out of which six were established during 1983 and another was established in May 1987. Since 1972, Banking sector has been playing a commendable role in achieving the economic growth of Bangladesh.

Objectives of the Study

The study is designed to achieve the following specific objectives:

- 1. To highlight the financial performance of NCBs, PCBs, SCBs & FCBs during 1996 to 2005.
- 2. To measure the profitability & the relevant factors of selected banks during 1996 to 2005.

3. To make suggestions for the banking development in Bangladesh.

Hypotheses of the Study

- There is no significant difference of influencing factors of profitability among the selected banks during 1996-2005.
- 2. There is no significant difference in explaining profitability among the selected banks during 1996-2005.

Methodological Issues Sample of the Study: NCBs

Four banks are selected for the study i.e. Sonali Bank (SB) 1972, Agrani Bank (AB)1972, Janata Bank (JB) 1972 & Rupali Bank (RB) 1972 under Nationalized Commercial Banks (NCBs). Only four banks are selected for the study out of 30 Private Commercial Banks (PCBs) i.e. National Bank Ltd. (NBL) 1983, City Bank Ltd. (CBL)1983, Islami Bank BD Bank Ltd. (IBBL) 1983 & United Commercial Bank Ltd. (UCBL)1983. Only four banks are selected for the study out of 5 Specialized Commercial Banks i.e. Bangladesh Krishi Bank (BKB) 1972, Bangladesh Shilpa Bank (BSB)1972, Bangladesh Shilpa Rin Shnagtha (BSRS) 1972 & Rajshahi Krishi Unnayan Bank (RAKUB) 1975. Only four banks are selected for the study out of 10 Foreign Commercial Banks (FCBs) i.e. American Express Bank Ltd. (AEBL) 1966, Standard Chartered Bank (SCB) 1965, Standard Bank of India (SBI)1972 & Habib Bank Ltd. (HBL)1976.

Sources of Data

The study is based on secondary data. Main emphasis was given to secondary data collected from the Economic Trends in Bangladesh, resume of the activities of Financial Institutions in Bangladesh, annual reports, Bangladesh Bank Bulletin, Statistical Year Books, Bangladesh Economic Survey, Bangladesh Bank Nationalization Order 1972, Banking Companies Act, 1991 etc.

Period of Study

This study covers a selected period of ten years i.e. 1996-2005.

Techniques of Analysis

For analysis and interpretation of the available data of the banks, techniques like Mean, SD, CV, AGR, AAGR, EGR, TREND, BUSINESS FORECASTING, Maximum level, & Minimum level, Regression, ANOVA, Smoothing Exponential Growth Forecasting Methods & Factor analysis etc have been employed.

Analysis and Interpretation of Data

Table-1: The banking sector of Bangladesh comprises of four categories of scheduled banks. 49 scheduled banks are operating in Bangladesh with a network of 6236 branches. Four nationalized commercial banks (NCBs), five Specialized Commercial Bank (SCBs), 30 Private Commercial Banks (PCBs) and 10 Foreign Commercial Banks (FCBs) constitute these 49 Scheduled Banks. There are also 6 Islamic banks, 5 private banks and I foreign commercial bank. The scheduled banks have 3699 branches in the suburban or rural areas, which is 59.32 percent of the total number. In addition, one national co-operative bank, one Ansar VDP Bank, Karmasangsthan Bank and one Grameen Bank are also in operation. Although the foreign banks show better performance according to different criteria such as the capital adequacy, quality of assets and expenditure-income ratio, the location of branches, the common people throughout the country have far better access to the NCBs and SCBs. Foreign banks do not have a single branch in any rural area or suburban areas of Bangladesh. Besides, though PCBs have branches outside the urban area, it is only 26 percent of their total number of branches. On the contrary, 63 percent and 89 percent of the total branches of the NCBs and SCBs are located in different suburban and rural areas of Bangladesh.

Testing of Hypotheses : H_1 : Factor Analysis

The general purpose of factor analysis is to minimize the information contained in a large number of variables into a smaller number of factors. Each variable is expressed as a linear combination of the underlying factors. The following variables are used for the factor analysis;

- Vi Total Advance to Total Deposits (TADVtTD)
- V₂ Total Investment to Total Deposits (TINVtTD)
- V₃ Total Income to Total Deposits (TItTD)
- V₄ Total Income to Total Advance (TItADV)
- V₅ Total Income to Total Investment (TItTINV)
- V₆ Total Income to Total Assets (TItTAsst)
- V₇ Net Profit to Total Deposits (NptTD)
- V₈ Net Profit to Total Advance (NptTAdv)
- V₉ Net Profit to Total Income (NptTI)
- V₁₀ Net Profit to Total Assets (NptTAsst)

Table-2: This shows the results of Kaiser – Meyer - Olkin (KMO) & Bartlett's Test of profitability of NCBs, PCBS, SCBs & FCBs, based on the information of selected banks during 1996 -2005. High values (between 0.50 and 1.00) indicate that factor analysis is appropriate. Values below 0.50 imply that factor analysis may not be appropriate. KMO measures the sphericity of sampling adequacy as an index used to examine the appropriateness of factor analysis. In this case, KMO reveals the sampling adequacy indicating (Value of .0.50 < KMO < 1.00) i.e. 0.503, 0.661, 0.701 & 0.576 for NCBs, PCBS, SCBs & FCBs respectively i.e. appropriate for the same. Bartlett's Test of sphericity is a test of statistics used to test the hypothesis that the variables are uncorrelated in the population. The population correlation matrix is an identity matrix where each variable correlates perfectly with itself (r=1) but has no correlation with other variables (r=0). Bartlett's Test of Sphericity indicates that the approximate chi-squire values are 529.294, 541.633, 597.998 & 563.394 for NCBs, PCBS, SCBs & FCBs respectively with 36 (df) for NCBs & PCBS, 45 (df) for SCBs & FCBs at 0.05 levels of significance. Hence the factor analysis is considered as an appropriate technique. The EIGEN VALUES are greater than one and these three factors are being extracted for NCBs, PCBS, SCBs & FCBs. These imply that profitability of all the selected banks depend on three major factors. Cumulative percentage rates i.e. 83.611, 92.612, 88.580 & 86.006 percent for NCBs, PCBS, SCBs & FCBs respectively and the remaining variables collectively explain the 19.39, 7.388, 11.44 & 13.994 percent of total variance. Hence we can reduce the number of variables to 3 out of 10 for the selected banks under the study.

Table-3 illustrates that *EIGEN Values* are greater than one (>1) and three factors are being extracted for the same Banks i.e. 1.248, 2.411 & 3.866, which indicate that the profitability indicators of the NCBs depended on major three reasons (Factor # 1 NP t TI, 0.975, Factor # 2 TI t TD, 0.876 & Factor # 3 TI t T Adv. 0.905) respectively. **Table-4** establishes that (PCBs) EIGEN Values are greater than one (>1) and three factors are being extracted for the same banks i.e. 1.511, 2.047 & 4.777, which indicate that the profitability indicators of the PCBs depended on major three reasons i.e. (Factor # 1 TI t TD i.e. 0.960, Factor # 2 NP t TI 0.964 & Factor # 3 TAdv. t TD 0.823) respectively. **Table-5** asserts that EIGEN Values are greater than one (>1) and three factors are being extracted for the same banks i.e. 1.454, 2.787 & 4.617 and these indicate the profitability indicators of the SCBs depended on major three reasons i.e. (Factor # 1 NP t TAdv. 0.936, Factor # 2 TI t TAdv. 0.963 & Factor # 3 NP t TI 0.893) respectively. **Table-6** establishes that (FCBs) EIGEN Values show the selected profitability indicators of the FCBs depended on major three reasons i.e. (Factor # 1 TI t TASST 0.855, Factor # 2 TAdv. t TD 0.971 & Factor # 3 TI t TAdv. 0.485) respectively (**Table 7 & 8**).

On the basis of 'Factor Loading Plot' (SPSS) shown in **Table-9**, we have selected V_9 (Net Profit to Total Income), V_2 Total Investment to Total Deposit & V_5 Total Income to Total Investment, to explain the profitability indicators of the selected NCB banks for the study period. The three selected variables collectively explained i.e. R=0.786 percent of variations in the profitability. The adjusted Ra^2 is 0.587 percent. The range of VIF is from the lower of 1.254 to the higher of 1.277. This model may be applicable to enhance the profitability of the banks in Bangladesh under the study.

According to the above table, we have selected V₈ (Net Profit to Total Advance), V₉ Net Profit to Total Income, & V₁ Total Advance to Total Deposits, to explain the profitability indicators of the selected PCB banks for the study period. The three selected variables collectively explained i.e. R= 0.967 percent of variations in profitability. The adjusted Ra² is 0.930 percent. The range of VIF is from the lower of 1.067 to the higher of 1.106. This model is properly used to enhance the profitability of the banks in Bangladesh under the study.

From the Factor Loading Plot' (SPSS), we have selected V_8 (Net Profit to Total Advance), V_4 Total Income to Total Advance & V9 Net Profit to Total Income, to explain the profitability indicator of the selected SCB banks for the study period. The three selected variables collectively explained i.e. R=0.996 percent of variations in profitability. The adjusted Ra^2 is 0.992 percent. The range of VIF is from the lower of 1.084 to the higher of 1.324. This model is used to enhance the profitability of the Banks in Bangladesh under the study.

From the 'Factor Loading Plot' (SPSS), we have selected V_6 (Total Income to Total Assets), V_1 Total Advance to Total Deposits & V_3 Total

Income to Total Investment, to explain the profitability indicators of the selected FCB banks for the study period. The three selected variables collectively explained i.e. R= 0.797 percent of variations in profitability. The adjusted Ra² is 0.605 percent. The range of VIF is from the lower of 1.537 to the higher of 2.060. This model may be applicable to enhance the profitability of the banks in Bangladesh under the study.

Major Causes of Low Profitability & Productivity

The major causes of low profitability & productivity of the banking sector are as follows. These are divided into two heads i.e. controllable factors & uncontrollable factors.

Controllable Factors

Lengthy procedures for providing loans & advances, lack of proper customer services, lack of manpower in the branch levels, improper distribution of works, lack of appreciation for better service & punishment for malpractices, poor recovery, heavy outstanding classified advances & bad loan etc., lack of legal rules for recovery of classified advances, sale of mortgaged property, improper system for valuation of mortgaged property, weakness for valuation of assets for mortgaged property, dishonesty of the branch manager, honesty & sincerity of the officers not being properly considered at the time of posting of the manager in the branch level, lack of actual job satisfaction regarding promotion & transfer systems, poor reliability, insincerity & non-cooperation of Sonali Bank in the absence of Bangladesh Bank regarding clearing service& other activities, heavy trade union pressure, simple / poor salary systems, lack of modern tools & technology, administrative weakness, lengthy legal action systems, job discrimination etc.

Uncontrollable Factors

Political unrest, government decision, natural disturbance, national policies, technological changes, logistics support, two days weekly holiday (Friday & Saturday) for Bangladesh, one day weekly holiday (Sunday) for foreign country i.e. three days create a gap in global communication etc.

Conclusion

All types of commercial banks in Bangladesh show great fluctuation in profitability & productivity during 1996-2005. Although they had increasing trend of the same during 1996-2005, the average profitability of the banks deteriorated during 2000-2001 due to absence of interest on classified advances. The major causes of decline in profit are high cost of fund, increasing idle fund, lack of opportunity for profitable investment of available fund, unorganized security market, more dependence on non-interest income, lack of good entrepreneurs and rapid industrial sickness etc. The causes of changes in productivity are mainly decreased deposits to investment, lack of training and motivation of its own manpower, lack of welfare facilities and rationalization of cost etc. To enhance the profit of all the banks, World Bank urged the use of a modified formula of loan classification in 1989 and another formula for appraising credit worthiness of a borrower in a specific format namely "Lending Risk Analysis" in 1993. These facilitated the productive uses of available funds leading to increased productivity and profitability of the banks. In contrast, there is alleged to be a very high incidence of corruption in the rural lending operations of the NCBs and the BKB and the repayment rates of such loans are also extremely low. Here, the formal banking system can perhaps learn something from the success of micro-credit. The loan transactions, for instance, can be made more transparent through some form of community involvement. Repayments could be made monthly, rather than six-monthly as at present, in order to avoid building up of repayment obligations and facilitate tighter monitoring. Following steps should be taken to facilitate increased earnings of the selected banks:

- 1. More profitability may be ensured by investing unutilized fund and at the same time maintaining optimum liquidity of the bank.
- 2. To avoid fraud and forgery, all banks should be more vigilant and rationalize their services.
- Practically, management needs to be more cost conscious, alert in granting advances to viable projects and prompt in recovery of funds.
- Monitoring and follow-up of loans should be strengthened and borrowers should be given early signals before the problem goes out of hands.
- 5. Advisory Services: The banks may provide advisory services related to foreign exchange, technical side i.e. related to choice of production process, marketing strategies, accounting standard, capital budgeting and latest technology etc.
- 6. Customers' Information Services: All banks should establish an information cell. This cell will collect important information as demanded by the customers.
- 7. Credit Card Services: In the modern banking concept, the credit card service is the most significant method. It comprises of two important aspects the transfer of payment and the granting of credit. This method helps the purchase goods or services without cash within the credit limit.
- 8. e-Commerce: The recent change in the global financial areas necessitates the introduction of electronic devices used in international banking operations i.e. e-commerce which represents paperless method of undertaking commercial transactions over the computer network. This has vast potential and will revolutionize the economy & trade.

- 9. Telex, mobile, telephone, fax, AC cost, internet bills should be logical and properly controlled by the higher authority.
- 10. Establishing of "Research Cell" in each of the banks is more important to evaluate the productivity level of banks along with limiting factors and corrective measures.

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Table - 1 Statement of the Structure of the Banking System in Bangladesh during 2005

Banks	Total Numbers	Number of Branches			As %	of No. of 'Branches	Total
		Urban	Rural	Total	Urban	Rural	Total
NCBs	04	1241	2147	3388	36.69	63.37	100 %
PCBs	30	1155	402	1494	74.18	25.24	100 %
SCBs	05	151	1183	1334	11.32	88.68	100 %
FCBs	10	39	0.00	36	100.00	0.00	100 %
Total	49	2586	3699	6252	221.19	177.29	100 %

Source: Bangladesh Economic Review-2005, p. 47.

Table - 2 KMO and Bartlett's Test (a) for NCBs, PCBS, SCBs & FCBs

Name of the Parameters	NCBs	PCBs	SCBs	FCBs
Kaiser-Meyer-Olkin Measure Measure of Sampling Adequacy. Bartlett's Test of Sphericity	0.503	0.661	0.701	0.576
Approx. Chi-Square	529.294	541.633	597.998	563.394
df	36	36	45	45
Sig.	.000	0.00	0.00	0.00

Only cases for which BGROUP = **NCBs**, **PCBS**, **SCBs & FCBs** are used in the analysis phase. Source: Calculation through the Statistical Package for Social Science (SPSS) from the secondary information of selected banks during 1996-2005.

Table - 3 Total Variance Explained (a)

C. No.		Initial Eigen	values	Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	3.866	42.954	42.954	3.775	41.948	41.948	
2	2.411	26.788	69.742	2.235	24.834	66.782	
3	1.248	13.869	83.611	1.515	16.829	83.611	
4	.736	8.173	91.784				
5	.537	5.971	97.755				
6	.178	1.973	99.728				
7	.012	.133	99.861				
8	.009	.103	99.964				
9	.003	.036	100.000				

Extraction Method: Principal Component Analysis.

Table - 4 Total Variance Explained (a)

Com. No.		Initial Eiger	ıvalues	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.777	53.075	53.075	4.558	50.640	50.640
2	2.047	22.745	75.820	2.137	23.746	74.386
3	1.511	16.792	92.612	1.640	18.226	92.612
4	.332	3.687	96.299			
5	.213	2.364	98.663			
6	.075	.832	99.494			
7	.021	.235	99.729			
8	.017	.190	99.920			
9	.007	.080	100.000			

Extraction Method: Principal Component Analysis

Source: Calculation through the Statistical Package for Social Science (SPSS) from the secondary information of selected banks during 1996-2005.

a Only cases for which BGROUP = **NCBs** are used in the analysis phase.

a Only cases for which BGROUP = **PCBs** are used in the analysis phase.

Table - 5 : Total Variance Explained (a)

Com.No.	I	nitial Eigen	values	Rotation Sums of Squared Loadings			
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	4.617	46.173	46.173	4.528	45.282	45.282	
2	2.787	27.872	74.045	2.551	25.511	70.793	
3	1.454	14.535	88.580	1.779	17.787	88.580	
4	.461	4.612	93.193				
5	.312	3.119	96.311				
6	.147	1.469	97.780				
7	.122	1.218	98.998				
8	.077	.773	99.771				
9	.021	.210	99.981				
10	.002	.019	100.000				

Extraction Method: Principal Component Analysis.

Source: Calculation through the Statistical Package for Social Science (SPSS) from the sceondary information of selected banks during 1996-2005.

Table - 6: Total Variance Explained (a)

Component	Initial Eigenvalues			Rotatio	Rotation Sums of Squared Loadings		
	Total	% of Variance			% of Variance	Cumulative %	
1	4.926	49.261	49.261	3.707	37.069	37.069	
2	2.635	26.351	75.612	3.312	33.121	70.190	
3	1.039	10.394	86.006	1.582	15.816	86.006	
4	.683	6.832	92.838				
5	.394	3.944	96.782				
6	.146	1.457	98.239				
7	.130	1.297	99.537				
8	.033	.333	99.870				
9	.007	.075	99.945				
10	.006	.055	100.000				

Extraction Method: Principal Component Analysis.

a Only cases for which BGROUP = **FCBs** are used in the analysis phase.

a Only cases for which BGROUP = **SCBs** are used in the analysis phase.

Table - 7: Rotated Component Matrix (a, b)

		Com. of NCBs				Com. of PCBs	
	1	2	3		1	2	3
INVTTD	-0.295	0.863	-0.064	INVTTD	0.846	-0.491	0.085
TITTD	0.007	0.876	0.394	TITTD	0.960	0.045	0.095
TITTADV	-0.183	0.119	0.905	TITTADV	0.126	-0.018	-0.925
TITTINV	0.431	-0.012	0.632	TITTINV	-0.123	0.963	0.037
TITTASS	0.233	0.598	0.261	NPTTD	0.956	-0.132	0.207
NPTTD	0.956	0.137	-0.057	NPTTADV	0.946	0.018	-0.143
NPTTADV	0.962	-0.123	-0.009	NPTTI	0.048	0.964	-0.134
NPTTI	0.975	-0.151	-0.030	NPTTASST	0.973	0.029	0.090
NPTTASST	0.824	0.237	0.234	ADVTTD	0.360	-0.140	0.823
ADVTTD	0.125	0.811	-0.413				

Source : Calculation through the Statistical Package for Social Science (SPSS) from the secondary information of selected banks during 1996-2005.

Table - 8: Rotated Component Matrix (a, b)

	Component of SCBs				Component of FCBs		
	1	2	3		1	2	3
INVTTD	0.874	-0.205	-0.152	INVTTD	-0.280	0.014	-0.921
TITTD	0.911	-0.137	-0.110	TITTD	0.398	0.704	-0.386
TITTADV	0.065	0.953	0.157	TITTADV	0.068	-0.864	-0.144
TITTINV	-0.190	0.149	0.885	TITTINV	0.575	0.500	0.485
NPTTD	0.930	-0.157	-0.040	NPTTD	0.755	0.576	0.143
NPTTADV	0.936	0.193	0.250	NPTTADV	0.769	-0.528	0.147
NPTTI	0.249	0.039	0.893	NPTTI	0.738	0.452	0.445
NPTTASST	0.935	0.128	0.256	NPTTASST	0.836	0.216	0.288
ADVTTD	0.463	-0.729	0.026	ADVTTD	0.026	0.971	0.066
TITTASST	0.048	0.974	0.094	TITTASST	0.855	-0.128	0.044

Hypothesis # 2:

Table - 9: Model Summary of Regression

Model	Indicators	R	\mathbb{R}^2	R_a^2	F	Sig	VIF
NCBs	$\begin{array}{ccc} NP \ t \ TI- & V_9 \\ TInv. \ t \ TD- & V_2 \\ TI \ t \ TInv & V_5 \end{array}$	0.786	0.619	0.587	19.458	0.00	1.254 1.277 1.276
PCBs	NP t TAdv V ₈ NP t TI - V ₉ Adv. t TD - V ₁	0.967	0.936	0.930	174.724	0.00	1.068 1.067 1.106
SCBs	NP t TAdv V ₈ TI t TAdv V ₄ NP t TI - V ₉	0.996	0.993	0.992	1630.717	0.00	1.324 1.084 1.278
FCBs	$ \begin{array}{cccc} TI\ t\ TAsst & -\ V_6 \\ Adv.\ t\ TD -\ V_1 \\ TI\ t\ Tinv. & -\ V_3 \end{array} $	0.797	0.635	0.605	20.903	0.00	1.537 1.646 2.060

Source : Calculation through the Statistical Package for Social Science (SPSS) from the Secondary information of selected banks during 1996-2005.