

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION AND MANAGEMENT

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EFFICIENCY-PROFITABILITY RELATIONSHIP IN PUBLIC, PRIVATE AND FOREIGN SECTOR BANKS OPERATING IN INDIA

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ABSTRACT

In the present move where the focus is on competition, consolidation and efficiency in a banking sector, this paper attempts to measure the technical efficiency (TE) based on the cross sectional data of 69 banks-26 public sector, 18 private sector and 25 foreign sector banks. Data Envelopment Analysis (DEA) technique has been used to compute the T E scores of each bank for the year 2007-08 and 2008-09. Empirical results reveal that among the three groups of banks Public sector banks seem to be relatively efficient followed by Private sector and Foreign banks. To have a wider picture of banks' performance, the relationship between the efficiency and profitability has been explored. The efficiency-profitability matrix based on the efficiency scores and Return on Assets (ROA) reveals that out of total 69 banks covered under the study five Public Sector Banks, two Private Sector Banks and two Foreign Banks were able to maintain their star status for both years. These seven banks appear as ideal banks and a bench mark for laggards in terms of efficiency-profitability parameters.

KEYWORDS

Banks, DEA, Profitability, Technical Efficiency.

INTRODUCTION

he Asian financial crisis of 1997-98 and thereafter the global financial turmoil of sub prime crisis of 2008 has confirmed the fact that the well regulated financial system specifically a banking system is the most crucial for the macroeconomic stability and sustainability in the long run for overall economic growth. As visible by financial tsunami in 2008, that the crisis in a banking system in terms of insolvency of rock like investment banker had the potential to push the economy into a depression. That is what (as explained by Caprio & Honohan in 2002) is the most extreme form of credit driven macroeconomic cycle.

Indian banking sector is at a very exciting point of its development. The financial sector reforms have played a significant role in enhancing competitiveness and modernization. Indian banks have thrown in to the era of competition (from their foreign counterparts as well as challenges from within), productivity, product innovation, e-revolution, customer expectation i.e. delivering high quality service at the cheapest price and so on. At this juncture the performance of banks becomes a major concern for planners and policy makers in India. Reserve Bank of India and Government of India constituted Narasimham Committee (1991, 1998) and Verma Committee (1999) to make banking sector more efficient and viable.

In this dynamic and competitive banking system only robust banks having high level of technical efficiency and profitability can assure the reasonable returns to shareholders while minimizing the risk of bankruptcy. They can stand tall in any adversities. Financial distress is a curse and lead to wastage of resources and reduces the profitability, which dampens the banking sector growth and the whole economy as well. Hence it has become necessary to identify the robust and distressed banks and an appropriate strategy for restructuring these banks can be framed out. The present study is an attempt in this direction of examining the efficiency- profitability relationship in commercial banks operating in India.

LITERATURE REVIEW

During the last few decades various researches have been done on banking efficiency measurement. Researchers employed different kinds of measures to assess the efficiency of banks.

Angadi & Devraj (1983) considered total working funds credits & deposits as output indicators while the establishment expenses as the total input indicators in the use of DEA approach. They measured efficiency as total working funds per rupee of establishment expenses.

Wheelock and Wilson (1999) used non-parametric methods to measure the bank productivity. They estimated the Malmquist productivity index with the help of DFA.

Shanmugam & A. Das (2004), Kaparakis, Miller and Novlas (1994) adopted a flexible stochastic Frontier Approach to evaluate cost efficiency of commercial banks

Clark J (1984), Benston, Hanweck and Humphery (1982) adopted Generalized (translog) Cost Function Model to access scale economies of banking.

Rangkakulnuwat (2007) utilised DEA to estimate the technical efficiency of nine Thai Commercial Banks from 2000 to 2005. The result indicates that commercial banks in first tier had always produced at the production frontiers & had higher T E than the second and third tiers.

Halkos and Salamouris (2001) utilized the DEA technique to measure the efficiency of the Greek banking sector with the use of a number of suggested financial ratios for the period 1997-99.

Jemric and Vujcic (2002) used DEA to analyze bank efficiency in croatia. They attempted to measure the relative efficiency of banks in Croatin market according to size, ownership structure, date of establishment & quality of assets in the period from 1995-2000.

Wu (2002) conducted productivity and efficiency analysis of banks operating in Australia. Since, deregulation of the Australian financial system in early 1980s. DEA was employed in order to investigate the level of & the change in efficiency of Australian banks over the period from 1983-2001.

Ozkan-Genay & Tektas (2006) assessed the technical efficiency of non-public commercial banks in Turkey during 1990-2001 following the DEA model.

Luciano (2007) illustrated the efficiency features of Italian banking system through the review of the most important empirical studies over the last 15 years. Particular emphasis is giver to DEA studies by Oral & Yolalan (1990); Vassiloglou & Giokas (1990); Giokas (1991); Haag & Jaska (1995); Yeh (1996); Avkiran 1997,

1999a & 1999b; Katib & Matthews (1999); Liu & Tripe (2002); Darrat et al (2002); Batchelor & Wadud (2003); Wadud & Yasmeen (2004).

A large number of studies have been done in Europe & USA but it has been limited in Indian contest.

In India the Verma committee (Verma 1999) was assigned the task of identifying and restructuring weak PSBs. Seven financial ratios were used for the study. Some remarkable attempts have been made by researchers & analyse the efficiency of Indian banking sector. used nine variables and seven output variables in order to examine the relative efficiency of commercial banks over the period 1997-2004.

Some other studies include- Noulas & Katkar 1996; Bhattacharya 1997; Das 1997, 1999; Mukherjee et al 2002; Sathye 2003; Kumar & Verma 2003; Saha & Ravisankar 2002; Shanmugam and Lakshmanasamy 2001.

The main purpose of the study is to apply methodology framework of DEA analysis along with profitability ratio to establish the efficiency-profitability matrix.

METHODOLOGY

A variety of techniques have been used to study the efficiency of commercial banks. The estimates of efficiency are sensitive to the choice of technique. The efficiency is a broader concept; it involves optimally choosing the levels and the mixes of input and/or outputs. The overall bank efficiency can be divided in to scale, scope, pure technical and allocative efficiency. The bank has the scale efficiency when it operates in the range of CRS. Charnes, Cooper and Rhodes (CCR) (1978) proposed this model with assumption of constant returns to scale. Hence this model was named after the researches and called as the CCR model. Ferrell (1957) defined the technical efficiency as the producers' ability to produce as much output as input usage allows avoiding the waste of resources. Technical efficiency is defined as a ratio of minimum costs that could have expended to produce a given output bundle to the actual costs expended. There are four types of technical efficiency estimations based on different assumptions. They are-Data Envelopment Analysis (DEA), Stochastic Frontier Approach (SFA),

Thick Frontier Approach (TFA) and Distribution Free Approach (DFA). They can be categorised in to two categories- Parametric Approaches-SFA, TFA, DFA and Non-Parametric Approaches-DEA. For the present study we have used non-parametric approach i.e. DEA covering 69 banks operating in India along with the profitability ratios (ROA) to form an efficiency-profitability matrix.

Data envelopment analysis (DEA) is a non-stochastic, non-parametric, linear programming to measure the relative efficiency of similar Decision Making Units (DMUs) with common inputs and outputs. The DEA technique has been used to compute the T E scores of the banks. The DEA estimate compares each of the banks in the sample with the one that is the best practice observation or Decision Making Unit (DMU) in the sample. It separates efficient DMUs from non-efficient DMUs. As survey of literature suggests, DEA has gained more and more acceptability as a tool for efficiency analysis of financial institutions.

The current study states that banks use certain inputs to produce certain outputs. Thus the efficiency of the banks will be measured as to how efficiently they are able to utilize their inputs given their outputs. In this model, the efficiency is measured by the ratio of weighted outputs to weighted inputs. The ratio is of the form-

u1 y1 + u2 y2 +un yn -----v1 x1 +v2 x2+.....vn xn

Where, u and v are the weights for the outputs, (y1,.......n) and inputs, x (x1......n) respectively. Assume that for each of the N firms there are data on K inputs and M outputs and represented by the column vectors xi and yi respectively for the i th firm. This may be expressed as (u' yi/ v' xi), where u is an MX1 vector of output weights and v is a KX1 vector of input weights. To arrive at the optimal weights, we define the following linear programming problem as

Maxu,v (u' yi/ v' xj)

Subject to $u' \ y \ j' \ v' \ x \ j < 1, \qquad j=1, 2,.....n$ u, v > 0(1)

Solving (1) values for u and v may be obtained such that the efficiency measure for each firm is maximized. A pertinent constraint with this particular model formulation is that it can have an infinite number of solutions. Thus an additional constraint is added, v' xi=1 so that this problem can be removed. The new model, known as the transformation model, thus becomes.

Max μ, ν (μ' yi) Subject to ν' xi=1 μ' yj - ν' xj < 0, j=1,2,.....n $\mu, \nu > 0$ (2)

To reflect the transformation, u has been replaced by μ and v has been replaced by ν .

This form in equation (2) is known as the multiplier form of the DEA linear programming problem.

Using duality in linear programming, an equivalent envelopment form of this problem may be obtained:

Min θ , $\lambda\theta$

Subject to

-yi +Y $\lambda > 0$

 $\theta \text{ xi} - X \lambda > 0$

 λ >0, where θ is a scalar and λ is a NX1 vector of constant.(3)

The efficiency for the j-th Decision Making Unit (DMU) is reflected by the value of θ. For each DMU taken in the study, a separate linear programming problem would be solved.

The technically efficient DMU will have θ =1 and all other DMUs would have θ < 1, implying that the efficiency scores of all other DMU will be measured relative to the technically efficient units that have a score of θ =1. In this study each bank under observation will be considered as a DMU.

EFFICIENCY-PROFITABILITY RELATIONSHIP

To have a wider picture of banks' performance, the relationship between efficiency and profitability has been explored. To achieve this DEA based TE scores have been plotted against ROA. This resultantly formed an 'Efficiency-Profitability Matrix' containing four distinct quadrants (see figure 1). These quadrants are separated from each other on the basis of arithmetic average (mean values) of TE score and ROA figures.

On the basis of this matrix banks are divided into four categories they are Ace/Stars, Lucky/Sleepers, Underdogs/Question mark "?" and Unlucky/Dogs.

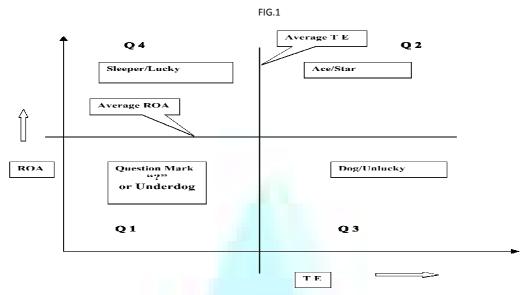
Basically this matrix is a plot between the ROA as profitability indicator and TE score obtained from DEA as efficiency indicator. On the basis of the average ROA and TE four quadrants are marked. These four quadrants represent respective category of the bank.

The first quadrant i.e. **Q 1** is labelled as '? /Underdog'. The banks positioned in this quadrant are below the average in terms of efficiency as well as profitability. These banks are considered as 'weak' banks and are target for potential mergers.

The units fall in the second quadrant i.e. **Q 2** are 'Star/Ace' banks. They are the top performers and having high level of efficiency and profitability. They are the benchmarks and the role models for inefficient banks in the industry.

The third quadrant i.e. **Q 3** contains '**Unlucky/Dog'** banks who operate at high of efficiency as compared to their counter-parts but lack in profitability. The observation and analysis of the environmental factors can help these units to achieve the high profitability levels.

The fourth quadrant i.e. **Q 4** labelled as **'Sleeper/Lucky'** contains those banks whose TE scores are below average and ROA is above average. These banks can minimise waste of resources. The reason for high profits can be attributed to favourable economic environment. If they start working efficiently they can generate more profits with proper use of resources or can reduce their operating cost and reach to the level attained by 'star' units.



Efficiency- Profitability Matrix

CHOICE OF INPUTS AND OUTPUTS

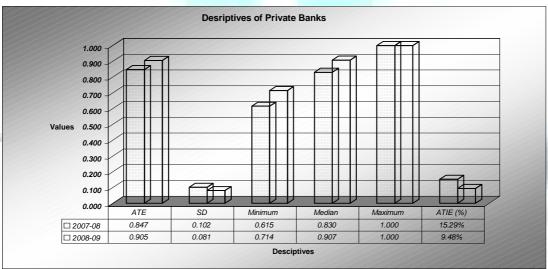
It has been a matter of constant debate when it comes to defining the inputs and outputs. There are mainly two approaches that have been discussed in the existing literature. The first is the *Intermediation approach*. Here banks are viewed as intermediaries between the provider of funds and users of funds. In this approach, deposits are regarded as being converted into loans (Mester, 1987). This approach takes the interest expense into account, which accounts for a large proportion of a bank's cost (Elyasiani and Mehdian, 1990; Berger and Humphrey, 1991). In this approach, output may be taken as the money value of deposits and loans and the inputs considered include money value of labour, fixed assets and equipment and loanable funds. In contrast, the latter approach is the *Production approach*, where banks are considered to be producing deposits and loans (outputs) using capital and labour (inputs). This approach takes into account physical quantities of inputs and outputs, and does not assign a monetary value to inputs or outputs. This approach does not take into account the interest costs (which comprise a major proportion of expenses of the expenses in most countries), hence the criticism.

The financial performance of a bank is highly influenced by the amount it spends in various operating and non-operating activities. Thus, the Total income, the main measure of performance for the banks, is chosen as the output. Fund based financial services expenses, Compensation to employees and Provisions & contingencies the main expenditure of banks is taken as inputs. Hence it is being assumed that for increasing output by the banks to have balanced inputs. Thus, in this model Total income (y) is being taken as output while Fund based financial services expenses (x1), Compensation to employees (x2) and Provisions & contingencies (x3) are taken as the inputs. As these three expenses constitute the major proportion of the expenses in banks, so these are being considered as inputs. Anand (1993) observed that for the year 1991, banks expended approximately 25% of the operating costs on deposit mobilization.

EMPIRICAL FINDINGS

Technical Efficiency: Each category of banks have been divided into three sub categories i.e. all banks, efficient banks and inefficient banks. On the basis of the DEA output following results was obtained.

PRIVATE BANKS



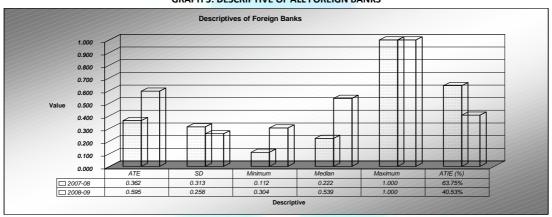
GRAPH 1: DESCRIPTIVE OF ALL PRIVATE BANKS

As evident from graph 1 (see table 1 and 2), the mean technical efficiency of private sector banks have shown the improvement in efficiency frontier in the year 2008-09 as compared to 2007-08 (ATE improved from 84.7% to 90.5%). Still there is a scope for improvement, as they can produce 1.10 times more output than the current level with the same input. Another interesting observation is that the standard deviation has reduced for the year 2008-09 which is an indication of more competitive environment within this sector.

Descriptives of Inefficient Private Banks 1.000 0.900 0.800 0.700 0.600 Values 0.500 0.400 0.300 0.200 0.100 0.000 ATE SD 0.828 0.091 0.615 0.823 0.978 17.21% ☐ Series1 0.878 ☐ Series2 0.071 0.714 0.898 0.962 12.19% Descriptives

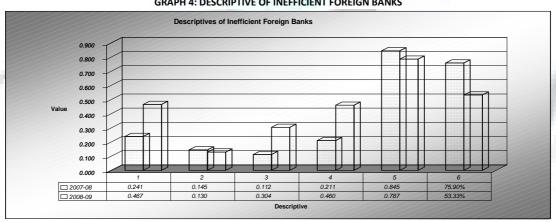
GRAPH 2: DESCRIPTIVE OF INEFFICIENT PRIVATE BANKS

On analyzing graph - 2 (see annex.- Table 1 and 2)it is found that the overall level of technical inefficiency in the private sector banks has been found at 17.21% in 2007-08 which has improved to 12.19% in 2008-09. These banks have reduced their inputs by 5.02% but still to be efficient banks they can further reduce their input by 12.19. Putting it differently, these banks had the scope of producing 1.14 times more output from the same level of input. **FOREIGN BANKS**



GRAPH 3: DESCRIPTIVE OF ALL FOREIGN BANKS

As evident from graph - 3 (see annex. - Table 1 and 2) in case of ATE, which was 36.2% in 2007-08 has improved considerably to 59.5% in 2008-09. This shows that these banks either reduced their inputs by 23.22% or produced more output with the same input than the previous year. But still they can improve their efficiency by reducing their inputs by 40.53%. In other words they can produce 1.68 times more output than the current level or observed output with the same inputs.



GRAPH 4: DESCRIPTIVE OF INEFFICIENT FOREIGN BANKS

On analyzing graph - 4 (see table 1 and 2) it is found that the overall level of technical inefficiency in the foreign banks has been found at 75.90% in 2007-08 which has been improved to 53.33% in 2008-09 But still there is a scope to produce 2.14 times more output than the current observed outputs with the same level of inputs. The improvement in the SD shows that the efficiencies of these banks are more close to the mean. **PUBLIC SECTOR BANKS**

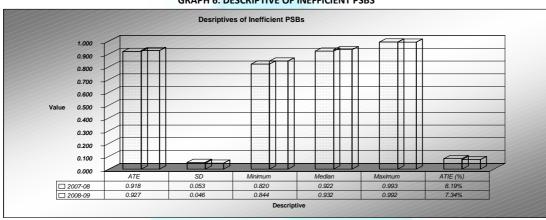
0.100

2007-08

Descriptives of PSBs 0.700 0.400 0.200

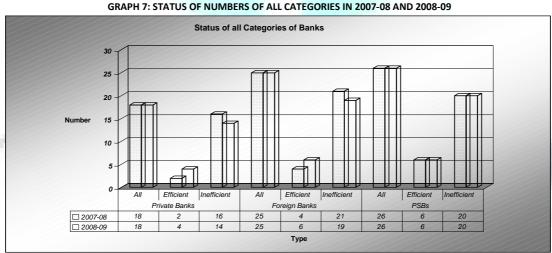
GRAPH 5: DESCRIPTIVE OF ALL PSBS

As evident from graph-5(see annex.-Table 1 and 2) there is slight improvement in the ATE of Public sector banks (from 93.7% to 94.4%) due to the reduction in the inputs by 0.65%. Further efficiency can be achieved by reducing current level of inputs by 5.65% to produce same output or by improving 1.06 times the current level of output with the same level of inputs. Decrease in SD shows that current scores are more close to the mean score. While decrease in median shows the shift in positional mean towards lower efficient banks.



GRAPH 6: DESCRIPTIVE OF INEFFICIENT PSBS

As evident from graph-6 (see table 1 and 2) the improvement in ATE is due to the reduction in the input by 0.85%. Still there could be some improvement by reducing inputs by 7.34% to produce same output or can improve output by 1.08 times from the current observed level of output with the same level of inputs. On analyzing graph - 6 (see annex.- Table 1 and 2) it is found that the overall level of technical inefficiency in the public sector banks has been found at 8.19% in 2007-08 which has improved to 7.34% in 2008-09. These banks have reduced their inputs by 0.85%. These banks had the scope of producing 1.08 times more output from the same level of input.



GRAPH 7: STATUS OF NUMBERS OF ALL CATEGORIES IN 2007-08 AND 2008-09

On analyzing Graph-7 it is found that during the study period number of efficient banks increased in case of Private Banks and Foreign banks from 2 to 4 and from 4 to 6 respectively. There is no change in number of the efficient banks in PSBs.

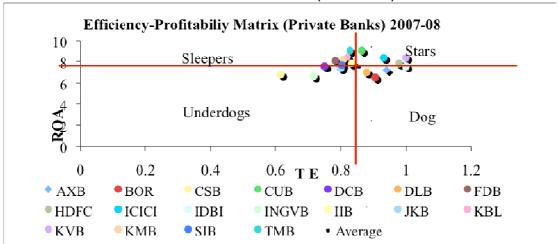
EFFICIENCY PROFITABILITY RELATIONSHIP

Return on Assets (ROA) has been taken as the main indicator of Profitability. In case of profitability it is found that the mean profitability of all the three types of banks has improved over the study period 2007-08 to 2008-09 (see table 3 & table 4). In case of foreign sector banks remarkable improvement is visible. While the SD showed the mixed trend i.e. there is no pattern of SD in case of efficient and inefficient banks either as individual groups or as combined group.

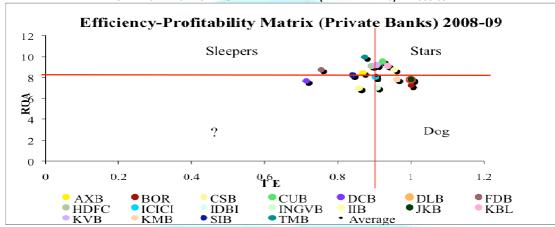
PROFITABILITY-EFFICIENCY MATRIX

1. PRIVATE BANKS

GRAPH 8: EFFICIENCY-PROFITABILITY MATRIX (PRIVATE BANKS) FY 2007-08



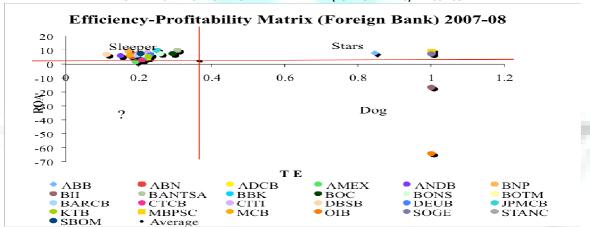
GRAPH 9: EFFICIENCY-PROFITABILITY MATRIX (PRIVATE BANKS) FY 2008-09

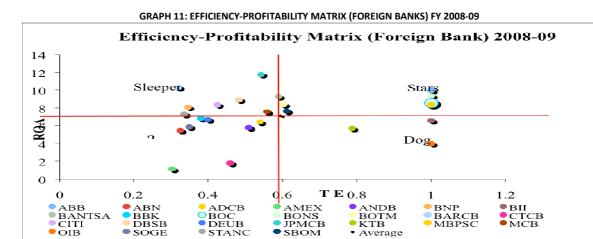


"Efficiency-profitability matrix" of Private Banks reveals the considerable wastage of resources in 56% banks (10 banks) in the year 2007-08 and 45% banks (8 banks) in the year 2008-09, which fall in the category of 'sleeper and 'underdog' (See table 5&6). These banks have the potential for increase in profitability thru operating efficiency. In both the period 22% banks (4 banks) occupied a place in 'star quadrant'. Out of 4 banks only two banks viz. KVB and CUB are able to maintain the star status in both the years. There are 2 new entrants viz. IIB and KBI in the year 2009-09.

2. FOREIGN BANKS

GRAPH 10: EFFICIENCY-PROFITABILITY MATRIX (FOREIGN BANKS) FY 2007-08

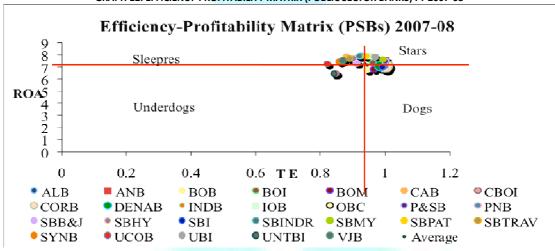


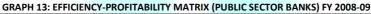


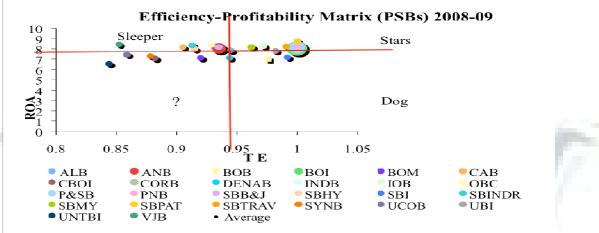
"Efficiency-profitability matrix" of Foreign Banks reveals the considerable wastage of resources in 76% banks (19 banks) in the year 2007-08 and 64% banks (16 banks) in the year 2008-09, which fall in the category of 'sleeper and 'underdog' (See table 5&6). These banks have the potential for increase in profitability thru operating efficiency. In both the period 12% banks (3 banks) and 24% banks (6 banks) respectively in 07-08 and 08-09 occupied a place in 'star quadrant'. Out of 3 banks two bank viz. ABB and MBPSC are able to maintain the star status in both the years. There are 4 new entrants viz. BOC, BONS, BOTM and SBOM in the year 2009-09.

3. PUBLIC SECTOR BANKS









"Efficiency-profitability matrix" of Public Sector Banks reveals the considerable wastage of resources in 42% banks (11 banks) in the year 2007-08 and 46% banks (12 banks) in the year 2008-09, which fall in the category of 'sleeper and 'underdog' (See table 5&6). These banks have the potential for increase in profitability thru operating efficiency. In both the period 35% banks (9 banks) and 39% (10 banks) respectively occupied a place in 'star quadrant'. Out of 9 banks only 5 banks viz. BOI, IOB, P&SB, SBMY and SBPAT are able to maintain the star status in both the years. There are 5 new entrants viz. ALB, SYNB, CORB, INDB & PNB in the year 2009-09.

CONCLUSION

The study reveals that Public Sector Banks are having high technical efficiency during the study period. On the basis of profitability, Private Sector Banks are the best performers. While efficiency-profitability matrix reveals that large number of Public Sector Banks (5) are able to maintain their star status in both the years

(2007-08 and 2008-09, the period under study) followed by two each in Private and Foreign Banks. The low performance of Foreign Banks is an indicative of the after effects of subprime crisis.

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ANNEXURE

TABLE 1: DETAILS OF TE SCORE IN DIFFERENT CATEGORIES IN 2007-08

Year 2007-08									
Private Banks			Foreign E	Foreign Banks			PSBs		
Statistics	All	Efficient	Inefficient	All	Efficient	Inefficient	All	Efficient	Inefficient
n	18	2	16	25	4	21	26	6	20
ATE	0.847	1	0.828	0.362	1	0.241	0.937	1	0.918
SD	0.102	0	0.091	0.313	0	0.145	0.058	0	0.053
Minimum	0.615	1	0.615	0.112	1	0.112	0.820	1	0.820
Median	0.830	1	0.823	0.222	1	0.211	0.949	1	0.922
Maximum	1.000	1	0.978	1.000	1	0.845	1.000	1	0.993
ATIE (%)	15.29%	0.00%	17.21%	63.75%	0.00%	75.90%	6.30%	0.00%	8.19%

TABLE 2: DETAILS OF TE SCORE IN DIFFERENT CATEGORIES IN 2008-09

Year 2008-09										
	Private Banks			Foreign I	Foreign Banks			PSBs		
Statistics	All	Efficient	Inefficient	All	Efficient	Inefficient	All	Efficient	Inefficient	
n	18	4	14	25	6	19	26	6	16	
ATE	0.905	1	0.878	0.595	1	0.467	0.944	1	0.927	
SD	0.081	0	0.071	0.258	0	0.130	0.051	0	0.046	
Minimum	0.714	1	0.714	0.304	1	0.304	0.844	1	0.844	
Median	0.907	1	0.898	0.539	1	0.460	0.945	1	0.932	
Maximum	1.000	1	0.962	1.000	1	0.787	1.000	1	0.992	
ATIE (%)	9.48%	0.00%	12.19%	40.53%	0.00%	53.33%	5.65%	0.00%	7.34%	

TABLE 3: DETAILS OF ROA IN DIFFERENT CATEGORIES IN 2007-08

ROA (2007-08)					
Mean	SD	Minimum	Median	Maximum	
7.77	0.76	6.53	7.76	9.07	
2.97	14.87	-64.05	6.86	10.05	
7.37	0.44	6.46	7.44	7.94	
7.98	0.58	7.57	7.98	8.39	
-16.13	34.02	-64.05	-4.71	8.93	
7.28	0.23	7.03	7.28	7.54	
7.74	0.79	6.53	7.76	9.07	
6.61	2.18	1.75	6.86	10.05	
7.39	0.49	6.46	7.49	7.94	
	Mean 7.77 2.97 7.37 7.98 -16.13 7.28 7.74 6.61	Mean SD 7.77 0.76 2.97 14.87 7.37 0.44 7.98 0.58 -16.13 34.02 7.28 0.23 7.74 0.79 6.61 2.18	Mean SD Minimum 7.77 0.76 6.53 2.97 14.87 -64.05 7.37 0.44 6.46 7.98 0.58 7.57 -16.13 34.02 -64.05 7.28 0.23 7.03 7.74 0.79 6.53 6.61 2.18 1.75	Mean SD Minimum Median 7.77 0.76 6.53 7.76 2.97 14.87 -64.05 6.86 7.37 0.44 6.46 7.44 7.98 0.58 7.57 7.98 -16.13 34.02 -64.05 -4.71 7.28 0.23 7.03 7.28 7.74 0.79 6.53 7.76 6.61 2.18 1.75 6.86	

TABLE 4: DETAILS OF ROA IN DIFFERENT CATEGORIES IN 2008-09

	ROA (20	ROA (2008-09)				
	Mean	SD	Minimum	Median	Maximum	
All Private	8.27	0.86	6.95	8.12	9.92	
All Foreign Banks	7.21	2.45	1.12	7.57	11.77	
All PSBs	7.85	0.55	6.58	8.03	8.77	
Efficient Private Banks	7.65	0.29	7.22	7.79	7.81	
Efficient Foreign Banks	7.82	2.20	3.99	8.49	9.98	
Efficient PSBs	8.18	0.31	7.88	8.12	8.77	
Inefficient Private Banks	8.45	0.89	6.95	8.57	9.92	
Inefficient Foreign Banks	7.02	2.55	1.12	7.31	11.77	
Inefficient PSBs	7.75	0.57	6.58	7.94	8.45	

TABLE 5: PROGRESS CHART OF PRIVATE BANKS

Private Bank Progress							
Bank Name	Code	2007-08	2008-09				
Axis Bank Ltd.	AXB	Dog	Sleeper				
Bank Of Rajasthan Ltd.	BOR	Dog	Dog				
Catholic Syrian Bank Ltd.	CSB	?	?				
City Union Bank Ltd.	CUB	Star	Star				
Development Credit Bank Ltd.	DCB	?	?				
Dhanalakshmi Bank Ltd.	DLB	Dog	Dog				
Federal Bank Ltd.	FDB	Sleeper	Sleeper				
H D F C Bank Ltd.	HDFC	Star	Sleeper				
ICICI Bank Ltd.	ICICI	Star	?				
IDBIBank Ltd. [Merged]	IDBI	Dog	Dog				
I N G Vysya Bank Ltd.	INGVB	?	Dog				
Indusind Bank Ltd.	IIB	Sleeper	Star				
Jammu & Kashmir Bank Ltd.	JKB	?	Dog				
Karnataka Bank Ltd.	KBL	Sleeper	Star				
Karur Vysya Bank Ltd.	KVB	Star	Star				
Kotak Mahindra Bank Ltd.	KMB	Sleeper	Dog				
South Indian Bank Ltd.	SIB	?	?				
Tamilnad Mercantile Bank Ltd.	TMB	Sleeper	Sleeper				

TABLE 6: QUADRANT WISE STATUS OF PRIVATE BANKS

	Star	Sleeper	Underdog	Dogs
2007-08	4	5	5	4
2008-09	4	4	4	6

TABLE 7: PROGRESS CHART OF FOREIGN BANKS

Foreign Bank Progress							
Bank Name	Code	2007-08	2008-09				
A B Bank Ltd.	ABB	Star	Star				
A B N-Amro Bank N.V.	ABN	Sleeper	?				
Abu Dhabi Commercial Bank	ADCB	Sleeper	?				
American Express Bank Ltd.	AMEX	?	?				
Antwerp Diamond Bank N V	ANDB	Sleeper	?				
B N P Paribas	BNP	Sleeper	Sleeper				
Bank International Indonesia	BII	Dog	Dog				
Bank Of America National Trust & Savings Association	BANTSA	Sleeper	Sleeper				
Bank Of Bahrain & Kuwait Bsc	BBK	Sleeper	?				
Bank Of Ceylon	BOC	Sleeper	Star				
Bank Of Nova Scotia	BONS	Sleeper	Star				
Bank Of Tokyo-Mitsubishi U F J Ltd.	BOTM	Sleeper	Star				
Barclays Bank Plc.	BARCB	Sleeper	Sleeper				
Chinatrust Commercial Bank	CTCB	Dog	3				
Citibank N A.	CITI	Sleeper	Sleeper				
D B S Bank Ltd.	DBSB	Sleeper	Sleeper				
Deutsche Bank A G	DEUB	Sleeper	?				
J P Morgan Chase Bank, National Association	JPMCB	Sleeper	Sleeper				
Krung Thai Bank Public Co. Ltd.	KTB	Sleeper	Dog				
Mashreq bank P S C	MBPSC	Star	Star				
Mizuho Corporate Bank Ltd.	MCB	Sleeper	Sleeper				
Oman International Bank	OIB	Dog	Dog				
Societe Generale	SOGE	Star	?				
Standard Chartered Bank	STANC	Sleeper	Sleeper				
State Bank Of Mauritius Ltd.	SBOM	Sleeper	Star				

TABLE 8: QUADRANT WISE STATUS OF FOREIGN BANKS

	Star	Sleeper	Underdog	Dogs
2007-08	3	18	1	3
2008-09	6	8	8	3

TABLE 9: PROGRESS CHART OF PUBLIC SECTOR BANKS

PSBs Progress			
Bank Name	Code	2007-08	2008-09
Allahabad Bank	ALB	Sleeper	Star
Andhra Bank	ANB	Star	Sleeper
Bank Of Baroda	BOB	Dog	Dog
Bank Of India	BOI	Star	Star
Bank Of Maharashtra	BOM	Dog	?
Canara Bank	CAB	Sleeper	Sleeper
Central Bank Of India	CBOI	?	?
Corporation Bank	CORB	Dog	Star
Dena Bank	DENAB	Dog	Dog
Indian Bank	INDB	Dog	Star
Indian Overseas Bank	IOB	Star	Star
Oriental Bank Of Commerce	OBC	Star	Sleeper
Punjab & Sind Bank	P&SB	Star	Star
Punjab National Bank	PNB	Dog	Star
State Bank Of Bikaner & Jaipur	SBB&J	?	Sleeper
State Bank Of Hyderabad	SBHY	Sleeper	Sleeper
State Bank Of India	SBI	Star	Dog
State Bank Of Indore	SBINDR	Sleeper	Sleeper
State Bank Of Mysore	SBMY	Star	Star
State Bank Of Patiala	SBPAT	Star	Star
State Bank Of Travancore	SBTRAV	Sleeper	Star
Syndicate Bank	SYNB	Sleeper	?
Uco Bank	UCOB	?	3
Union Bank Of India	UBI	Star	Dog
United Bank Of India	UNTBI	?	?
Vijaya Bank	VJB	Sleeper	Sleeper

TABLE 10: QUADRANT WISE STATUS OF PUBLIC SECTOR BANKS

	Star	Sleeper	Underdog	Dogs
2007-08	9	7	4	6
2008-09	10	7	5	4



REQUEST FOR FEEDBACK

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Hoping an appropriate consideration.

With sincere regards

Thanking you profoundly

Academically yours

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