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### ANALYSIS OF MANAGEMENT EFFICIENCY OF SELECTED PRIVATE SECTOR INDIAN BANKS

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## **ABSTRACT**

The present study is conducted to analyze the impact of management efficiency of selected private sector Indian banks namely ICICI Banking Corporation Ltd (ICICI), Indusind Bank Ltd (Indusind), AXIS Bank Ltd (AXIS) and HDFC Bank Ltd (HDFC) by using CAMEL Model ratios. The study is of analytical nature and therefore is based on the secondary data from the period of eleven years i.e. from 2000-01 to 2010-11 collected mainly from various Journals, Annual Reports and Performance Highlights of the Private Banks, Reports on Trends and Progress of Banking in India, etc. For the analysis of data collected, one-way ANOVA has been used to arrive at the conclusions. The results reveal that there is no significant difference in the ratio of total advances to total deposits in the selected banks; therefore, null hypothesis is accepted. However, business per employee and profits per employee reveal that there is significant difference in the management efficiency of the selected banks; therefore, null hypothesis is rejected.

#### **KEYWORDS**

Earning Quality, Total Advances, Total Deposits, Business per Employee, Profits per Employee.

#### INTRODUCTION

anks' ability to ameliorate informational asymmetries between borrowers and lenders and their ability to manage risks are the essence of bank production. These abilities are integral components of bank output and influence the managerial incentives to produce financial services prudently and efficiently. That banks' liabilities are demandable debt gives banks an incentive advantage over other intermediaries. The relatively high level of debt in a bank's capital structure disciplines managers' risk-taking and their diligence in producing financial services by exposing the bank to an increased risk of insolvency. The demandable feature of the debt, to the extent it is not fully insured, further heightens performance pressure and safety concerns by increasing liquidity risk. These incentives tend to make banks good monitors of their borrowers. Hence, the banking relationship can improve the financial performance of bank customers and increase access to credit for firms too informational opaque to borrow in public debt and equity markets. The uniqueness of bank's lending can be analysed in the form of types of lenders, the funding of informationally opaque assets with demand deposits. But banks' ability to perform efficiently - to obtain accurate information concerning its customers' financial prospects and to write effective contracts and to enforce them - depends in part on the property rights, legal, regulatory, and contracting environments in which they operate. Such an environment includes accounting practices, chartering rules, government regulations, and the market conditions (e.g., market power) under which banks operate. Differences in these features across political jurisdictions can lead to differences in the efficiency of banks across jurisdictions. The operating environment can also influence the external and internal mechanisms that discipline bank managers. Internal discipline might be induced or reduced by organizational form, ownership and capital structure, governing boards, and managerial compensation. External discipline might be induced or reduced by government regulation and the safety net, capital market discipline {takeovers, cost of funds, stakeholders' ability to sell stock (stock price)}, managerial labour market competition, outside block holders (equity and debt) and product market competition. The inter-temporal relationships between loan quality and cost efficiency may run in both directions. Increases in non-performing loans tend to be followed by decreases in measured cost efficiency, suggesting that high levels of problem loans cause banks to increase spending on monitoring, working out, and/or selling off these loans, and possibly become more diligent in administering the portion of their existing loan portfolio that is currently performing. For the industry as a whole, decreases in measured cost efficiency are generally followed by increases in non-performing loans, evidence that bad management practices are manifested not only in excess-expenditures, but also in subpar underwriting and monitoring practices that eventually lead to non-performing loans. However, increases in measured cost efficiency generally precede increases in non-performing loans, suggesting that these banks purposely trade short-run expense reductions for long-run reductions in loan quality. The bank failures are caused primarily by uncontrollable external events, and implies that prudential regulation and supervision could reduce the risk of failure by limiting banks' exposures to external shocks (e.g. limits on loan concentrations, allowing interregional diversification through inter-state mergers and loan sales, or encouraging low loan-to-asset ratios) or by better insulating banks from external shocks (e.g., requiring high levels of capital). In contrast, the bad management hypothesis implies that the major risks facing financial institutions are caused internally. This suggests that bank supervision and research should consider cost efficiency along with other traditional predictors of troubled banks such as loan losses and credit risk. This would help remove by statistical means the extra costs of dealing with nonperforming loans, which were caused by bad luck, not by managerial inefficiency, rather than erroneously counting these extra costs as inefficiency.

Induced by the forgoing revelations, an attempt is made to analyze the management efficiency of selected private sector Indian banks, which is divided into four sections. First section includes a brief review of some of the earlier studies. Second section covers the scope, objectives, hypotheses and research methodology. In third section, an attempt is made to analyze the managerial efficiency of private sector Indian banks. Fourth section covers the conclusion and limitations of the study.

#### LITERATURE REVIEW

The articles published on different facets of Indian banking reforms are restrictive in nature and have been found wanting in terms of the assessment of the impact of the reforms on the managerial efficiency of banking sector. Luc (2000) used a linear programming technique called Data Envelopment Analysis to estimate the inefficiencies of banks in Indonesia, Korea, Malaysia, Philippines and Thailand to the pre-crisis period 1992-96. It is found that foreign-owned banks took little risk relative to other banks in the East Asian region, and that family-owned banks were among the most risky banks, together with company-owned banks. The risk measure helped to predict which banks were restructured after the crisis of 1997. Restructured banks had excessive credit growth, were mostly family-owned or company-owned and were almost never foreign owned. Das, Nag and Ray (2005) empirically estimated and analysed various efficiency scores of Indian banks during 1997-2003 using data envelopment analysis (DEA). In spite of gradual liberalisation aimed at strengthening the operational efficiency of the financial system in the 1990s, it is observed that Indian banks are still not much differentiated in terms of input- or output-oriented technical efficiency and cost efficiency. However, it differed sharply in respect of revenue and profit efficiencies. Bank size, ownership, and being listed on the stock exchange are some of the factors that had a positive impact on average profit efficiency, and to some extent, revenue efficiency scores. Finally, the median efficiency scores of Indian banks in general, and of bigger banks, in particular, have improved during the post-reform period. Karlo (2007) presented evidence on the impact of managers on cost efficiency in banking. Stochastic frontier analysis was applied to a unique Finnish data set and found that manager age and education had strong yet complicated effects. University education enhanced efficiency if the manager was running a large bank. Managing director changes were systematically followed by efficiency changes. Manager retirement typically caused an efficiency improvement, whereas other manager changes can either improve or weaken efficiency. Joseph and Loretta (2008) conducted a study on great strides have been made in the theory of bank technology in terms of explaining banks' comparative advantage in producing informationally intensive assets and financial services and in diversifying or offsetting a variety of risks. Great strides have also been made in explaining sub-par managerial performance in terms of agency theory and in applying these theories to analyze the particular environment of banking. In recent years, the empirical modeling of bank technology and the measurement of bank performance have begun to incorporate these theoretical developments and yield interesting insights that reflect the unique nature and role of banking in modern economies. This study gave an overview of two general empirical approaches to measuring bank performance and discussed some of the applications of these approaches found in the literature. Fred, Stephen and Arthur (2009) studied a multivariate discriminant model to differentiate between low efficiency and high efficiency community banks (less than \$1 billion in total assets) based upon the efficiency ratio, a commonly used financial performance measure that relates non-interest expenses to total operating income. The model included proxies for the banking regulatory CAMELS rating variables including: the equity capital to total asset ratio, net charge-offs to loans, salaries to average assets, return on average assets, the liquidity ratio and the one year GAP ratio. The discriminant model was tested using data for 2006, 2007 and 2008. This included periods of high performance as well as deteriorating industry conditions associated with the current financial crisis. The model's classification accuracy ranged from approximately 88 percent to 96 percent for both original and cross-validation datasets. Franco, David and Phil (2010) analyzed the impact of efficiency on bank risk and also consider whether bank capital has an effect on this relationship. The model showing intertemporal relationships among efficiency, capital and risk for a large sample of commercial banks operating in the European Union was formulated. It found that reductions in cost and revenue efficiencies increase banks' future risks thus supporting the bad management and efficiency version of the moral hazard hypotheses. In contrast, bank efficiency improvements contributed to shore up bank capital levels. The findings suggested that banks lagging behind in their efficiency levels might expect higher risk and subdued capital positions in the near future. Dwivedi and Charyulu (2011) aimed to determine the impact of various market and regulatory initiatives on efficiency improvements of Indian banks. Efficiency of firm was measured in terms of its relative performance that is, efficiency of a firm relative to the efficiencies of firms in a sample. Data Envelopment Analysis (DEA) has used to identify banks that are on the output frontier given the various inputs at their disposal. This study was confined only to the Constant-Return-to-Scale (CRS) assumption of decision making units (DMUs). It was found from the results that national banks, new private banks and foreign banks have showed high efficiency over a period time than remaining banks. Uppal (2011) analyzed the performance of major banks in terms of productivity and profitability in the pre and post e-banking period and found that the performance of all the banks under study is much better in post-e-banking period and further foreign banks are at the top position, whereas the performance of the public sector banks is comparatively very poor. The paper also suggested some measures to tackle the challenges faced by the banks particularly public sector banks and how the public sector banks can convert the emerging challenges into opportunities. Omotola and Roya (2011) found that recent global economic meltdown triggered by the subprime mortgage crisis of United States in 2007 and its adverse effect on financial markets and participants in the financial industry worldwide have resulted in a capital management crisis in most financial institutions especially banks. This study was a case for the Nigerian banking industry, focusing on factors affecting risk management efficiency in banks. For empirical investigation, it employed Panel regression analysis taking a stratum of time series data and cross-sectional variants of macro and bank-specific factors for period covering 2003 to 2009. Result for panel regression indicated that risk management efficiency in Nigerian banks was not just affected by bank-specific factors but also by macroeconomic variables.

#### **SCOPE OF STUDY**

This study covers the four private sector Indian banks namely ICICI Banking Corporation Ltd (ICICI), Indusind Bank Ltd (Indusind), AXIS Bank Ltd (AXIS) and HDFC Bank Ltd (HDFC).

## **OBJECTIVES OF THE STUDY**

The present study aims to analyze the managerial efficiency of selected private sector Indian banks.

### **RESEARCH HYPOTHESES**

To achieve the objective of the study, the following null hypotheses have been formulated and tested:

- 1. There is no significant difference in the ratio of total advances to total deposits in the selected banks
- 2. There is no significant difference in the ratio of business per employee in the selected banks.
- 3. There is no significant difference in the ratio of business per employee in the selected banks.

#### **RESEARCH METHODOLOGY**

The present study is of analytical nature and therefore, use is made of secondary data for the period of eleven years i.e. from 2000-2001 to 2010-11, collected mainly from various Journals, Annual Reports and Performance Highlights of the Private Sector Banks, Reports on Trends and Progress of Banking in India, etc. For the analysis of data collected, one-way ANOVA has been used to arrive at the conclusions

## **RESULTS AND DISCUSSIONS**

Management efficiency is important element of the CAMEL Model. The ratios in this segment involve subjective analysis to measure the efficiency and effectiveness of management. The management of the bank takes crucial decisions depending upon its risk perception. It sets vision and goals for the organization and sees that it achieves them. This parameter is used to evaluate management efficiency as to assign premium to better quality banks and discount poorly managed ones. The ratios used to examine the management efficiency are as under:

## 1. TOTAL ADVANCES TO TOTAL DEPOSITS

This ratio measures the efficiency and ability of the bank's management in converting the deposits available with the bank (excluding other funds like equity capital, etc.) into high earning advances. Total deposits include demand deposits, saving deposits, term deposits and deposits of other banks. Total advances also include the receivables.

#### TABLE 1: TOTAL ADVANCES TO TOTAL DEPOSITS

Years	ICICI	Indusind	AXIS	HDFC
2000-2001	42.93	58.95	53.02	39.77
2001-2002	146.59	66.36	43.56	38.60
2002-2003	110.61	62.20	42.32	52.53
2003-2004	91.17	69.75	44.68	58.35
2004-2005	91.57	68.63	49.2	70.33
2005-2006	88.54	62.04	55.63	62.84
2006-2007	84.97	62.82	62.73	68.74
2007-2008	92.3	67.21	68.09	62.94
2008-2009	99.98	71.33	69.48	69.24
2009-2010	89.70	76.94	73.84	75.17
2010-2011	95.91	76.14	75.25	76.70
ANOVA Value F- 12.48 P-value-6.65			df-3	

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from Table-1, the ratio of total advances to total deposits ranges from 42.93 to 146.59 in case of ICICI, from 58.95 to 76.94 in case of Indusind, from 42.32 to 75.25 in case of AXIS and from 38.60 to 76.70 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is no significant difference in the ratio of total advances to total deposits in the selected banks; therefore, null hypothesis is accepted.

#### 2. BUSINESS PER EMPLOYEE

This ratio measures the productivity of human sources of the bank. It is used as a tool to measure the efficiency of all the employees of a bank in generating business for the bank. Dividing the total business by total number of employees determines this ratio. Higher the ratio better it is for the bank. By business we mean the sum of total deposits and total advances in a particular year.

TABLE 2: BUSINESS PER EMPLOYEE (Rs. in thousands)

Years	ICICI	Indusind	AXIS	HDFC	;
2000-2001	815	1582	959	643	
2001-2002	487	1588	896	778	
2002-2003	1120	1284	926	865	
2003-2004	1010	1080	808	866	
2004-2005	880	926	895	806	
2005-2006	905	880	1020	758	
2006-2007	1027	1040	1024	607	
2007-2008	1008	1063	1117	506	
2008-2009	1154	836	1060	446	
2009-2010	765	837	1111	590	
2010-2011	735	844	1366	653	
ANOVA Value F-8.60		P-value-0.00		df-3	

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from Table-2, business per employee ranges from 735 to 1154 in case of ICICI, from 836 to 1588 in case of Indusind, from 808 to 1366 in case of AXIS and from 466 to 866 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is a significant difference in business per employee in the selected banks; therefore, null hypothesis is rejected.

#### 3. PROFITS PER EMPLOYEE

This ratio measures the surplus earned per employee. It is arrived by dividing the profits after taxes earned by the bank by total number of employees. Higher the ratio, better is the efficiency of management.

TABLE 3: PROFITS PER EMPLOYEE (Rs. in thousands)

Years	ICICI	Indusind	AXIS	HDFC
2000-2001	10.45	6.98	7.27	8.61
2001-2002	5.00	6.88	7.79	9.75
2002-2003	11.00	9.50	8.22	10.09
2003-2004	12.00	14.98	8.07	9.39
2004-2005	11.00	10.12	7.03	8.80
2005-2006	10.00	1.56	8.69	7.39
2006-2007	9.00	2.61	7.59	6.13
2007-2008	10.00	2.62	8.39	4.97
2008-2009	11.00	3.49	10.02	4.18
2009-2010	9.00	6.51	12.00	5.98
2010-2011	10.00	8.24	14.00	7.37
ANOVA Value	F- 3.20	P-value-0.03		

Source: Performance Highlights of Private Sector Banks, IBA, Mumbai.

As is evident from Table-3, profits per employee ranges from 5.00 to 12.00 in case of ICICI, from 1.56 to 14.98 in case of Indusind, from 7.03 to 14.00 in case of AXIS and from 4.18 to 10.09 in case of HDFC during the period under study. The results of one-way ANOVA reveal that there is a significant difference in profits per employee in the selected banks; therefore, null hypothesis is rejected.

#### CONCLUSION AND FURTHER SCOPE OF RESEARCH

To sum up, there is no significant difference in the ratio of total advances to total deposits. However, a significant difference is found in case of business per employee and profits per employee, which signifies that there is a significant difference is the managerial efficiency of the selected banks during the period under study. The present study can be extended further by including more banks of private sector and their performance can be compared with foreign and public sector banks to arrive at some concrete conclusions regarding the efficiency of private sector banks in particular and Indian banking sector in general.

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