

A Study on Risk and Return Analysis of Selected Private Sector Banks in India

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ABSTRACT

The study examines determinants of risk and growth for five commercial banks in the period 2018-2022. A bank's growth depends on its profitability and other variables of size, asset type, financial structure, earnings dispersion and other independent variables. These variables may require finer-grained control to maximize profits or minimize costs. Well-capitalized banks are perceived as less risky, and such advantages lead to higher profitability. On the other hand, asset quality as measured by loan loss reserves has a negative impact on a bank's performance. Furthermore, banks with large retail deposit-taking networks have not achieved higher levels of profitability than banks with smaller networks. This study examines the impact of these characteristics and financial structure variables on the importance of the performance and profitability of the Indian banking industry. This paper presents a portion that quantifies how internal determinants and external factors contribute to the performance of selected private Indian banks. Finally, size and asset structure are two variables that show significant correlations with bank profitability.

INTRODUCTION

The banking sector is responsible for providing most of the finance for trade and commerce. Banking has always been a highly profitable and focused activity, but now banks are differentiating their products and services for better growth and sustainability. To grow, banks must constantly innovate and update to maintain demand and discerning customers and to provide convenient, reliable and convenient services. Driven by the challenge of expanding the banking market and capturing a larger share, some banks have invested in more branches and created aggressive marketing policies to expand their geographic and market reach. Other banks are looking at more innovative approaches to offering banking services over the Internet. After India's independence, financial reforms laid the foundation for a strong and healthy banking system. And with great progress in the implementation of reforms, the banking system is now entering its second phase., the Indian banking sector faces several challenges that require the development of new standards and strategies by Indian banks. The purpose of this study is to examine the main factors affecting the financial risk of several private sector banks in India.

REVIEW OF LITERATURE

Petria, N., Capraru, B. and Ihnatov, (2015) discusses various relationships between bank profitability. Cost ratio, return/dividend ratio and spread ratio are three categories in which the author classifies different ratios. These ratios can be used to understand a bank's financial position, operations and investment attractiveness. By using such ratio analysis, he explained, comparisons can be made between branches and the strengths and weaknesses of individual banks can be explored to make strategic decisions and take the necessary corrective actions.

Goddard (2014) using cross-sectional, pooled cross-sectional time series and dynamic panel models. Their model of profitability determinants incorporates size, diversification, risk, ownership type, and dynamic effects. They found that despite increasing competition, there are significant decisions of unusual interest each year. Evidence for a consistent or systematic relationship between size and profitability is relatively weak. The relationship between reputation and profitability for off-balance sheet businesses in bank portfolios is positive in the UK, but neutral or negative in other countries. The correlation between capital adequacy and profitability is positive.

Javaid (2011) analysed the determinants of efficiency of top 10 banks in Pakistan during the period 2004-2008. They only focused on internal factors. Javaid et al. (2011) used pooled ordinary least squares (POLS) to estimate the impact of assets, loans, stocks and deposits on return on assets (ROA), one of the key profitability measures for banks. I investigated. Empirical results have found strong evidence that these variables have a strong impact on profitability. However, the results show that higher returns do not always come from higher total assets due to economies of scale. Higher borrowings also contribute to profitability, but the effect is negligible. Shares and deposits have a significant influence on profitability.

STATEMENT OF THE PROBLEM

The banks currently work in three formats in India viz. public sector banks, private sector banks and foreign banks who are not aware of the growth factors which must be different in different places and therefore the banks working in India will learn the factors. responsible for their growth.

RESEARCH METHODOLOGY

According to the RBI and CMIE (Centre for Economic Monitoring of India) business databases, there are 22 private banks in India, all of which are listed on the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE). The top 5 commercial banks based on total assets were selected for study, and data for all 10 banks over the last 5 years are available. As a result, they were selected as the sampling unit for the study. Below are the sample banks considering in this study.

LIST OF SELECTED PRIVATE SECTOR BANKS FOR THE STUDY.

SL. No	BANK NAME	Total Assets in crores
1	ICICI Bank Ltd	1,411,297.74
2	HDFC Bank Ltd	2,068,535.05
3	Axis Bank Ltd	1,175,178.11
4	Yes bank	318,220.23
5	IDBI bank	301,419.36

OBJECTIVES OF THE STUDY:

- The purpose of conducting this research paper is to examine the determinants of profitability (growth) of banks operating in the Indian private sector.
- To evaluate the risk and returns factors for the selected private banks in India

RESEARCH HYPOTHESIS:

H1: The characteristics that make up a bank's profitability in the key figures you choose have great significance for the bank's earnings.

RESEARCH METHODOLOGY**❖ Sample Size**

For data analysis purposes, data from 5 banks, are the private sector banks (HDFC, ICICI, Federal, Yes Bank, Axis Bank) were taken into profitability terms. selected based on.

❖ Data Source and Data Analysis

Data source:

Data for the purpose of this study was obtained from secondary sources. This includes bank annual reports and other data published by RBI and other reliable sources.

Data analysis tools:

Bank data was used to analyse the dependence of bank profitability therefore ratio analysis was used to analyse the data using profitability as the dependent variable and the other independent variable.

DATA ANALYSIS AND INTERPRETATION:

For data analysis purposes of the data from five private sectors from 2018 to 2022 were selected from annual reports. Data were analysed using ratio analysis of risk and returns factors and profitability ratios as the dependent variable and other ratios as the independent variable. The collected data is shown below.

Factors

- **Bank size:** Uses the bank's total assets (log). In general, the effect of increased scale on profitability has been found to be positive to some extent. However, for banks that grow very large, size may be negative for bureaucratic and other reasons. The effect is not clear. On the one hand, large banks can

reduce costs through economies of scale and economies of scale. On the other hand, some argue that smaller banks can achieve economies of scale by scaling up to a certain point where further expansion leads to economies of scale. Therefore, there is no a priori forecast of the impact of this variable on banks' profitability.

- **Bank Ownership:** There is no clear empirical evidence to support a positive relationship between ownership and profitability, which is peculiar to the Indian banking sector. To capture this relationship, we use dummy variable 1 for public banks and dummy variable 0 for private and foreign banks, according to the literature.
- **Equity capital to Total Assets (EC TA):** Use the ratio of Equity to Total Assets as a proxy.
- **Operating Efficiency (OE):** We use the bank's operating expenses to total assets as a proxy for operating efficiency. This measurement is widely used in the literature.
- **Credit risk (CR):** Uses the ratio of a bank's total loss reserve to total loans (TL). It indicates the probability of a loss due to the debtor's failure to fulfil its obligations to the bank.
- **NPA Ratio:** Uses the ratio of non-performing assets to total assets as a proxy. This ratio directly affects the bank's profitability.
- **PSL Ratio:** Uses the ratio of preferred branch advances to total bank branch advances. In India, banks are required to earmark a percentage of loans in priority sectors such as agriculture, housing, education, SMEs and export-oriented units. Therefore, there is no a priori expected value for this variable in terms of profitability.
- **Interest Income Ratio (RII):** This variable is measured using the ratio of interest income to total income. In addition, banks with more diversified activities have the opportunity to reduce costs based on economies of scale. But before banks become less profitable, competition in the fee-generating business is heating up. Therefore, there are no prior expectations for this variable.
- **Labour Productivity (LP):** Uses the ratio of total sales to total number of employees. This variable is widely used to examine the impact on bank profitability. Improving labour productivity not only reflects effective bank management, but also increases bank efficiency and further increases bank profitability. To investigate whether the observed productivity gains contributed to the bank's profits, we include the rate of change in labour productivity (measured by total real sales to number of employees) in the model.
- **Cost of Funds (KF):** This ratio is calculated as the total cost of funds. That is, interest paid on bank deposits and other borrowed money. Use this ratio as a proxy for the cost of funds. Higher cost of funds and lower bank profitability.
- **Banking Sector Development to GDP (DPGDP):** Uses the ratio of total banking sector deposits to a country's GDP. It reflects the overall level of development in the banking sector and measures the importance of bank mobilization of savings in the economy.
- **Stock Market Movement to GDP (MCAPGDP):** Uses the ratio of stock market value to GDP. This variable serves as a proxy for the relationship between financial developments and bank and capital market funding and developments. As the stock market develops, more companies will raise funds from the stock market rather than from banks. This not only reduces the volume of lending by banks, but also reduces the risk of loan default.
- **GDP Growth Rate:** Economic growth, expressed as GDP growth rate, has several effects, such as increased banking activity. Researchers argue that an upturn in the economy will have a positive impact on banks' profitability as demand for loans increases. Increases in bank deposits and lending

have a positive impact on bank profitability. When economic activity slows down, demand for loans and deposits declines, adversely affecting profit margins.

STATEMENT OF RETURNS OF SELECTED PRIVATE BANKS

In this table shows about the statistical details of assets, the period of capital gain, revenue and efficiency of 2018 to2022

STATEMENT OF RETURN OF ICICI BANK

Year	2018	2019	2020	2021	2022
ASSET	879189.16	964459.15	1098365.15	1,230,432.68	1,411,297.74
REVENUE	72,385.52	77,913.36	91,246.94	98,086.80	104,892.08
ASSET STRUCTURE	0.77	0.34	0.72	1.31	1.65
CAPITAL STRUCTURE	6.63	3.19	6.99	11.21	13.94
REVENUE STRUCTURE	-1.21	-1.15	-0.77	-0.22	0.34
EFFICIENCY STRUCTURE	0.04	0.04	0.04	0.04	0.05

INTERPRETATIONS

The above table shows the clear view of the asset, revenue and other ratios of the ICICI Bank. The value of asset of the ICICI Bank goes on increasing from the period of 2018 to2022. From 879189.16 to 1,411,297.74. the revenue of the ICICI Bank also same for the increasing value at the five years. The capital and asset structure of the bank was increased for the last five years (2018 to 2022). Even though the value of returns increases, due to covid the earnings of the bank was in stagnant level.

STATEMENT OF RETURN OF HDFC BANK

Year	2018	2019	2020	2021	2022
ASSET	1,063,934.32	1,244,540.69	1,530,511.26	1,746,870.52	2,068,535.05
REVENUE	95,461.66	116,597.94	138,073.47	146,063.12	157,263.02
ASSET STRUCTURE	1.64	1.69	1.71	1.78	1.78
CAPITAL STRUCTURE	16.45	14.12	15.35	15.27	15.39
REVENUE	0.21	0.27	0.19	0.33	0.36

STRUCTURE					
EFFICIENCY STRUCTURE	0.04	0.03	0.06	0.04	0.05

INTERPRETATIONS

The above table shows the descriptive view of the asset and revenue and other ratios of the HDFC Bank. The asset values of the HDFC Bank goes on inflection from the period of 2018 to 2022. From 1,063,934.32 to 2,068,535.05. The revenue of HDFC bank also goes for the increasing value at the five years. The asset structure and revenue structure of the bank was increased for the last five years (2018 to 2022) from 1.64 to 1.78 and 0.21 to 0.36. Even though the value of returns increases, due to covid, the earnings capacity of the bank was in increasing level.

STATEMENT OF RETURN OF AXIS BANK

Year	2018	2019	2020	2021	2022
ASSET	691,329.58	800,996.53	915,164.82	996,118.42	1,175,178.11
REVENUE	56,747.40	68,116.11	78,171.72	78,483.49	82,597.37
ASSET STRUCTURE	0.03	0.58	0.17	0.66	1.10
CAPITAL STRUCTURE	0.43	7.01	1.91	6.48	11.30
REVENUE STRUCTURE	-1.54	-1.05	-1.51	-0.82	-0.18
EFFICIENCY STRUCTURE	0.00	0.02	0.02	0.03	0.06

INTERPRETATIONS

The above table shows the clear view of the asset and revenue and ratios of the AXIS Bank. The asset values and revenue values of the AXIS Bank goes on increasing trend from the period of 2018 to 2022. From 691,329.58 to 1,175,178.11 and 56,747.40 to 82,597.37. The asset structure and capital structure of the bank was volatility for the last five years and 2020 was lowest ratio compare to the other years. Even though the value of returns for fluctuating due to covid, the earnings capacity of the bank was in improving trend.

STATEMENT OF RETURN OF YES BANK

Year	2018	2019	2020	2021	2022
ASSET	312,445.60	380,826.17	257,826.92	273,542.77	318,220.23
REVENUE	25,491.26	34,214.90	37,923.10	23,382.56	22,285.98

ASSET STRUCTURE	1.35	0.45	-6.36	-1.26	0.33
CAPITAL STRUCTURE	16.40	6.39	-75.56	-10.42	3.15
REVENUE STRUCTURE	-0.31	-0.75	-10.96	-2.48	-0.69
EFFICIENCY STRUCTURE	0.06	0.03	-0.58	-0.09	0.03

INTERPRETATIONS

The above table shows the clear view of the asset and revenue and ratios of the YES Bank. The asset values and of the YES Bank goes on fluctuating trend from the period of 2018 to 2022. The revenue of the YES bank also negative. The asset structure and capital structure of the bank was volatility for the last five years and 2020 was lowest ratio compare to the other years. Even though the value of returns for fluctuating due to covid, the earnings capacity of the bank was in improving trend.

STATEMENT OF RETURN OF IDBI BANK

Year	2018	2019	2020	2021	2022
ASSET	350,313.64	320,284.49	299,942.37	297,764.08	301,419.36
REVENUE	30,035.41	25,371.53	25,295.48	24,556.93	22,985.19
ASSET STRUCTURE	-2.35	-4.71	-4.29	0.45	0.80
CAPITAL STRUCTURE	-50.99	-48.94	-46.82	4.45	7.34
REVENUE STRUCTURE	-4.35	-5.75	-5.78	-1.09	-0.74
EFFICIENCY STRUCTURE	-0.37	-0.42	-0.64	0.03	0.05

INTERPRETATIONS

The above table shows the clear view of the asset and revenue and ratios of the IDBI Bank. The asset values and of the IDBI Bank goes on fluctuating trend from the period of 2018 to 2022 and 2018 highest asset value and the lowest value is in the year of 2020. The revenue of the IDBI bank also decreasing trend. The asset structure and capital structure of the bank was volatility for the last five years and the efficiency ratio was improving in each year from -.37 to .05. Even though the value of returns for fluctuating due to covid, the earnings capacity of the bank was in increasing level.

BANK CORRELATION AND DESCRIPTIVE STATISTICS

A. ASSET AND REVENUE (CORRELATION AND STD. ERROR^A)

Asset correlation	Revenue correlation	Std. Error ^a
.491	.319	.200
.096	.033	.303
.030	.016	.355
.029	-.029	.386
.292	.294	.409
.357	.287	.430
.180	.145	.437
.016	.044	.439
.068	.073	.439
-.079	-.061	.442
.103	.100	.448
.125	.125	.457
-.110	-.068	.467
.134	.107	.478
.188	.147	.490
.245	-.201	.503

B. DESCRIPTIVE STATISTICS

Items	Mean	Std. Deviation	N
Asset	1249404.7740	2251736.41345	25
revenue	69345.7336	42056.05650	25
asset ratio	.0256	2.17658	25
revenue ratio	1.5620	2.50950	25
efficiency ratio	.0540	.20682	25

INTERPRETATION

The size of the correlation which has relationship between (perfect negative correlation) and (perfect positive correlation). If the correlation is "statistically significant". It is also flags this number samples [significant at least at the .05 level] or [significant at least at the .01 level]. If the correlation statistic doesn't have a minus in front of it, that means that the correlation is positive, which means that high scores for both variables go together, and low scores for both variables go together. If the correlation statistic had a minus in front of it, that would mean that as the values of one variable goes up, the values of the other variable go down (i.e., a negative or inverse correlation).

The study revealed power of to predict the future profitability of the banks. The correlation analysis which is the statistical test for overall model fit in terms of further revealed that the ratio of Size and Assets Structure explained the profitability. The total sum of squares (122.549) is the standard error that would accrue if the mean of Size and Assets have been used to predict the dependent variable (Profitability). Using the values of Size (five year) and Assets Structure these errors can be reduced by 28.14% (.200/.503). This reduction is deemed statistically significant with the average of .014% and significance at level of 0.05%. With the above analysis, finally, it can be concluded that two variables i.e., asset and revenue Structure explains the profitability in Indian private banks.

CONCLUSION

The current study was conducted to identify the determinants of profitability of Indian private banks (five selected banks) for the period of 2018-2022. The ratios were used to study the relationships of two variables like banking performance and the profitability of Indian banks. This study identified that the differences between private banks in terms of size structure were statistically significant. Therefore, the study found that taking higher risks yields to make a high return.

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