DETERMINANTS OF STOCK PRICES OF BANKING SECTOR WITH REFERENCE TO PRIVATE SECTOR BANKS

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Abstract
As financial intermediaries banks play an important role in the operations of an economy. Over the years private banks are gaining market share by providing solutions which people are not able to get from public sector banks. This is also visible in numbers as number of accounts, credit off take, Current Account and Saving Account (CASA) deposits have been growing over the years. Lastly the main issue of Net performing assets (NPA) has also been addressed by private sector banks. Over the years the NPA level has been low which clearly shows that prudent lending practices by private sector banks have rewarded not just banks but also stakeholders. It has been very well captured the on-going shift of people trust from public banks to private sector banks. The paper examines the determinants of private sector banks in India for the years 2010 to 2019. A sample of 15 banks in the private sector has been taken. Descriptive Analysis, Correlation and regression using panel data modelling has been performed. Share Returns has been taken as the dependent variable while other variables as Dividend per Share (DPS), Return on Equity (ROE), Price to Book (P/BV), Net interest margin (NIM), Capital Adequacy Ratio (CAR), Net non-Performing Assets to Net Advances (NPA to NA) are independent variables. The results show that independent variables are significant variables in affecting the profitability of banks in the private sector of Indian economy. It is also suggested that if banks concentrate on these variables, they would be able to generate better profitability and high returns for shareholders.

Key Words:- Capital Adequacy Ratio, Price to Book, Net NPA to NPA Advances, Return on Equity, Dividend per Share, Net Interest Margin

Introduction
Economic reforms in the form of globalization and liberalization in India has contributed significantly in enhancing competitiveness among different sectors in general and particularly in banking and financial markets. A sound financial system is crucial for an indispensable and vibrant economy. Thus, the performance of any economy to a large extent is dependent on the performance of the banking sector as it being the predominant component of the financial service industry. The banking sector was initially following strict controls on interest rates, as well as stringent regulations relating to branch licensing, directed credit programs, and restructuring strategies.

However, the closed and strict regulated environment started showing adverse effect on the sector, resulting in under-performance of the banks over the years. As a result, Indian banking sector underwent radical changes through its liberalization policy in early 1990s with implementation of a series of reforms with an objective to make the banking sector more productive and efficient by limiting the state intervention and enhancing the role of market forces. In current era banking sector is considered as one of the vital sectors for economic growth and inclusive development of Indian economy. Further, deregulation has opened up new prospects for private banks to increase revenues by diversifying into investment banking, insurance, credit cards, depository services, mortgage financing, securitization, and so on. At the same time, economic liberalization has brought greater competition for private banks, both domestic and foreign, as well
as competition from mutual funds, NBFC's, and other financial institutions. Because private banks still play an important role in the financial market, it is important to evaluate whether banks operate efficiently. The reforms have brought about comprehensive changes in many reporting norms. In current market driven economy, through deployment of more capital, advanced technology and skilled human resources, is posing stiff and increasing competition to all private banks.

First, the efficiency of private banks is directly linked to the productivity of the economy. Private banks provide liquidity, payments and safekeeping for depositors and channel these funds into investment and working capital requirements. In addition, private banks are supposed to play a special role in funding small businesses that often have very limited access to other sources of external finance. Private Banks also play a major role in ensuring a smooth functioning payment system, which allows financial and real resources to flow freely to their highest-returns uses. A basic benefit of enhanced efficiency is a reduction in spreads between lending and deposit rates. This is likely to stimulate both greater loan demands for industrial investment (and thus contribute to higher economic growth) and greater mobilization of savings through the banking system. The public sector banks continue to dominate the banking industry, in terms of lending and borrowing, and it has widely spread out branches which help greatly in pooling up of resources as well as in revenue generation for credit creation but with fast growing private banks the situation may change in coming years. In addition to the nationalized banks, several private banks were newly founded or created by previously extant financial institutions.

Banking performance is also affected by the macro economic variables see. Singh and Chaudhary (2009). First and foremost, the financial environment and development level of a country affects bank’s performance. The well-developed financial system accelerates economic growth by balancing between income, savings and consumption in an economy. Henceforth many factors at the macro levels are affecting private banks’ profitability. Among the internal and bank specific factors, the liquidity private position of a bank is the pivotal factor that determines bank’s credit/lending power, risk bearing capacity and provisioning norms. Thus, the liquidity position of private banks is increasing. However, extreme liquidity without sufficient credit creation would not be favourable for bank’s performance. The liquid resources must be invested to improve the profitability position, so that the investment- deposit ratio generates profits for the bank. Also, banks with high capital may incur large overheads without affecting their profitability.

Private sector banks are emerging as very sturdy players by gaining higher percentage of the assets of the banking industry in India. For the past three decades India's private banking system has several outstanding achievements to its credit. The most striking is its extensive reach. It is no longer confined to only metropolitans or cosmopolitans in India. In fact, Indian private banking system has reached even to the remote corners of the country. This is one of the main reasons of India's growth process. The reason attributed to this is higher interest rates offered by them.

Taking into consideration of precedent growth and competitive advantage gained by private sector banks like HDFC, Kotak etc. are shown outperformed stocks in the market. This creates consistent fascination of investors in banking stocks and shown considerable weights in portfolios. From the perspective of retail investors, investing in banking stocks is difficult because of its vulnerability arises due to many regulatory issues. Therefore we analysed private banking sector based on the fundamentals. The ratios considered for private banks are as follows: Dividend per Share, Return on Equity, Price to Book, Net interest margin, Capital Adequacy ratio, Net non-Performing Assets to Net Advances

Literature Review

Singh and Chaudhary (2009) studied the determinants of profitability in public sector, private sector and foreign sector banks in India from 2000-01 to 2006-07. Both bank specific determinants (investment, advances, deposits and assets) as well as macro- economic determinants (per capital income, exports, foreign exchange ratio etc.) were taken. The results of simple regression analysis showed that investments had significant impact on the operating profitability
for all the banks in all the three sectors. However, advances, deposits and assets affected profitability of private sector and foreign sector banks only. Even the macro-economic determinants affected the profitability significantly.

Bhatia, Aparna; Mahajan, Poonam; Chander, Subhash (2012) paper examined the determinants of profitability in the private sector banks in India for the years 2006-07 to 2009-10. A sample of 23 banks in the private sector was considered. Backward Stepwise Regression Analysis was used to study the impact of these determinants on the performance of the banks. Return on Assets (ROA) has been taken as the dependent variable while other variables as Spread ratio, Provisions and contingencies, non-interest income, Credit/deposit ratio, Operating expense ratio, Profit per employee, Business per employee, Investment/deposit ratio, Capital adequacy ratio, non-performing assets and type of bank have been controlled in the study. The results showed that Spread ratio, Provisions and contingencies, non-interest income, Operating expense ratio, Profit per employee, Investment/ deposit ratio and non-performing assets were significant variables in affecting the profitability of banks in the private sector of Indian economy.

Bihari, Suresh Chandra; Charde, Sumit Kumar. (2014), the research was based on traditional practice of 'investment and return'. Among various avenues of investments, stock investment has been lucrative even if it is risk associated. Fundamental analysis means evaluating a security that entails attempting to measure its intrinsic value by examining related economic, financial and other quantitative and qualitative factors. In other words, it attempted to study everything that can affect the security's value including macroeconomic factors and company-specific factors.

Srinivas, K., & Saroja, L. (2014), the study aimed to analyze and compare the physical performance of new private sector banks and offer suggestions for the improvement of its performance. For the purpose of analysis, profit, total business, advances, deposits, number of branches and number of employees, were selected as parameters of comparative physical performance. The analysis used statistical tools like mean, standard deviation and correlation. It indicates that the profit of Axis Bank, HDFC and ICIC Bank is more than the overall profit of private sector banks.

Gupta, D. D. (2015), the study attempted to compare profitability of old & new private sector banks during 2001-02-2010-11. The result derived was astonishingly exciting & hopefully it would be able to satisfy the academic appetite of researchers.

Biswas, Bhaskar.Sankalpa (2017), the research focuses on whether there is any difference in the non-performing assets, profitability and earnings of the select private banks and correlate between the non-performing assets and profitability of the select banks. Ten private sector banks in India have been selected as the sample for the study. ANOVA test, Karl Pearson's simple correlation and multiple correlation and regression analysis was used for analyzing the data.

Adkar, Vidula Anil (2018) in the banking sector NPA is a crucial indicator of the overall banking performance. It thus becomes imperative to forecast the non-performing assets of the Private Sector Banks in India. This research paper predicted the response variables namely, Net Profit, Business per Employee, Net NPA, Gross NPA and Net NPA as % Net Advances of the Private sector banks in India for the years 2017-18, 2018-19 and 2019-20. Expert time series model was used to predict the response variables for three years. Considering the time series data the best fit simple model was demonstrated. Sluggish forecasted values are observed for the response variable Net Profits, Business per Employee, Gross NPA, Net NPA and Net NPA as % Net Advances for the predicted years (2017-18, 2018-19 and 2019-20). The predicted profitability and productivity position and Non-performing assets of Private sector banks in India is distressing.

Popker, Suraj M. (2018) attempted to study financial performance of select private and public sector banks. Study considered five years annual financial statements of the banks and analyzed with the help of financial ratios and z-scores. Study further disclosed that performance of private sector banks is comparatively better in terms of Spread Ratio. On the basis of analysis, Balance sheet Ratio and Debt Coverage Ratio concludes that performance of the all the banks under study where classified under average category.
Gulati, Rachita and Singh, Nirmal (2019) the paper developed an index of bank stability for 66 commercial banks operating in the Indian banking industry for the period 2007/08-2016/17. An index is obtained by combining five dimensions, namely capital adequacy, asset quality, management efficiency, earning capacity and liquidity. The choice of dimensions is derived from the CAMEL framework as defined by the Reserve Bank of India, which is the modus operandi for measurement of banking stability. The aggregation of dimensions was done using the weights calculated by employing PCA approach.

Jacob, Tom and Raphael, Rincy (2019) the study measures the efficiency of selected two groups of banks i.e. publicly owned and privately owned. Data was downloaded from RBI profile of banks (MS Excel) for the numerical values. The date were scrubbed using MS excel macros and specific algorithms were developed to obtain individual banking efficiencies in the year 2019. As a result of the calculation, each bank obtained an efficiency score of 1 (efficient) or less than 1 (not efficient).

Vadrale, K. S. (2019), the objective of the study was to examine the comparative financial performance of selected Indian public and private sector banks by using the CAMEL parameters i.e. Capital Adequacy, Asset Quality, Management Efficiency, Earning Quality and Liquidity of selected Indian public and private sector banks during 2001 to 2015. Method: Top ten banks from net profit point of view were selected for the study. Based on ranks, selected top five banks from public sector are State Bank of India, Punjab National Bank, Canara Bank, Bank of Baroda and Bank of India and top five banks from private sector are ICICI Bank, HDFC Bank, Axis Bank, Jammu and Kashmir Bank and Federal Bank.

**Research Methodology**

**Data Profile**

**Capital Adequacy Ratio (CAR):**

The capital adequacy ratio (CAR) is a measurement of a bank's available capital expressed as a percentage of a bank's risk-weighted credit exposures. The capital adequacy ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world.

This is calculated as, Capital/ Risk Weighted Assets of a business. In the adoption of risk management strategies by a bank the ratio determines the cushion available to a bank against the credit risk, operational risk and market risk.

The capital adequacy ratios ensure the efficiency and stability of a nation’s financial system by lowering the risk of banks becoming insolvent. Generally, a bank with a high capital adequacy ratio is considered safe and likely to meet its financial obligations. Thus the higher the bank’s capital adequacy ratio, the higher the degree of protection of depositor's assets.a bank with a high capital adequacy ratio (CAR) is perceived as healthy and in good shape to meet its financial obligations.

**Dividend Per Share (DPS):**

Dividend per share (DPS) is the sum of declared dividends issued by a company for every ordinary share outstanding. The figure is calculated by dividing the total dividends paid out by a business, including interim dividends, over a period of time by the number of outstanding ordinary shares issued.

DPS is an important metric to investors because the amount a firm pays out in dividends directly translates to income for the shareholder, and the DPS is the most straightforward figure an
An investor can use to calculate his or her dividend payments from owning shares of a stock over time. Meanwhile, a growing DPS over time can also be a sign that a company's management believes that its earnings growth can be sustained.

Net Interest Margin (NIM):

Net interest margin (NIM) is a measurement comparing the net interest income a financial firm generates from credit products like loans and mortgages, with the outgoing interest it pays holders of savings accounts and certificates of deposit (CDs). Expressed as a percentage, the NIM is a profitability indicator that telegraphs the likelihood of a bank or investment firm thriving over the long haul. This metric helps prospective investors determine whether or not to invest in a given financial services firm. Simply put: a positive net interest margin suggests that an entity operates profitably, while a negative figure implies investment inefficiency.

If there's a large demand for savings accounts compared to loans, net interest margin decreases, as the bank is required to pay out more interest than it receives. Conversely, if there's a higher demand in loans versus savings accounts, where more consumers are borrowing than saving, a bank's net interest margin increases.

Monetary policies set by central banks also heavily influence a bank's net interest margins because these edicts play a pivotal role in governing the demand for savings and credit. When interest rates are low, consumers are more likely to borrow money and less likely to save it. Over time, this generally results in higher net interest margins. Contrarily, if interest rates rise, loans become costlier, thus making savings a more attractive option, which consequently decreases net interest margins.

Return on Equity (ROE):

Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders’ equity. Because shareholders’ equity is equal to a company’s assets minus its debt, ROE is considered the return on net assets. ROE is considered a measure of how effectively management is using a company’s assets to create profits.

Sometimes an extremely high ROE is a good thing if net income is extremely large compared to equity because a company’s performance is so strong. However, an extremely high ROE is often due to a small equity account compared to net income, which indicates risk.

ROE provides a simple metric for evaluating investment returns. By comparing a company’s ROE to the industry’s average, something may be pinpointed about the company’s competitive advantage. ROE may also provide insight into how the company management is using financing from equity to grow the business.

A sustainable and increasing ROE over time can mean a company is good at generating shareholder value because it knows how to reinvest its earnings wisely, so as to increase productivity and profits. In contrast, a declining ROE can mean that management is making poor decisions on reinvesting capital in unproductive assets.

Price to Book (P/B):

Companies use the price-to-book ratio (P/B ratio) to compare a firm's market capitalization to its book value. It's calculated by dividing the company's stock price per share by its book value per share (BVPS). An asset's book value is equal to its carrying value on the balance sheet, and companies calculate it netting the asset against its accumulated depreciation.
Book value is also the net asset value of a company calculated as total assets minus intangible assets (patents, goodwill) and liabilities. For the initial outlay of an investment, book value may be net or gross of expenses, such as trading costs, sales taxes, and service charges. Some people may know this ratio by its less common name, price-equity ratio.

The P/B ratio has been favored by value investors for decades and is widely used by market analysts. Traditionally, any value under 1.0 is considered a good P/B for value investors, indicating a potentially undervalued stock. However, value investors may often consider stocks with a P/B value under 3.0 as their benchmark.

It is difficult to pinpoint a specific numeric value of a "good" price-to-book (P/B) ratio when determining if a stock is undervalued and therefore a good investment. Ratio analysis can vary by industry. A good P/B ratio for one industry might be a poor ratio for another.

Net NPA to Net Advances (Net NPA/ NA)

The net NPA to loans (advances) ratio is used as a measure of the overall quality of the bank’s loan book. An NPA are those assets for which interest is overdue for more than 90 days (or 3 months).

Net NPAs are calculated by reducing cumulative balance of provisions outstanding at a period end from gross NPAs. Higher ratio reflects rising bad quality of loans.

\[ NPA\ ratio = \frac{Net\ non-performing\ assets}{Loans\ given} \]

NPA of any bank is an important financial component to look at when analyzing a bank. It tells us about the asset quality of the banks. It can be compared on time basis and with other banks to understand the asset quality.

Banks with higher NPAs effectively have lesser funds to advance because of the higher provisioning that they have to provide i.e. lesser funds on which they can potentially earn interest income. Other negative impacts of high NPAs are that the higher NPAs will increase the amount of provisioning thereby impacting the profitability of the banks. Thus Banks will face difficulty maintaining capital adequacy ratio. There will be increased pressure on Net Interest Margin (NIM) and compulsiveness to reduce high NPA’s.

**Research Methodology**

**Independent Variable and Dependent Variables**

The study considers six independent variables i.e. CAR, DPS, NIM, ROE, P/BV and Net NPA/ Net Advances and dependent variables is share price

**Objectives of Study**

The objective of the paper is to find the determinants affecting profitability of the banks operating in private sector in India for the period of ten years from 2010 to 2019 on stock prices.

**Data Profile**

The study covered a period of ten years from 2010 to 2019. The sample of the study comprised of 15 private sector banks. The data is taken from capitaline.

**List of Private Banks**
The list of private sector banks considered in study i.e. Axis Bank, City Union Bank, DCB Bank, Dhanlaxmi Bank, Federal Bank, HDFC Bank, ICICI Bank, IndusInd Bank, Jammu & Kashmir Bank, Karnataka Bank, Karur Vyasa Bank, Kotak Mahindra Bank, Laxmi Vilas Bank, South Indian Bank and Yes Bank

Results and Discussion

The descriptive statistics shown in Table 1.1 reflect on the nature and structure of the data. Share returns is the dependent variable whereas all other variables (price to book, dividend per share, capital adequacy ratio, net interest margin, return on equity, net NPA to net advances) are independent variable which exhibit the performance of private banks.

Table 1.1 Results of Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Capital Adequacy Ratio</th>
<th>DPS</th>
<th>NIM</th>
<th>ROE</th>
<th>P/B</th>
<th>Net NPA to Net Advances</th>
<th>Share Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>14.57</td>
<td>5.30</td>
<td>3.02</td>
<td>11.93</td>
<td>2.15</td>
<td>1.46</td>
<td>32.79</td>
</tr>
<tr>
<td><strong>Standard Error</strong></td>
<td>0.20</td>
<td>0.60</td>
<td>0.05</td>
<td>0.85</td>
<td>0.14</td>
<td>0.12</td>
<td>4.79</td>
</tr>
<tr>
<td><strong>Median</strong></td>
<td>14.59</td>
<td>2.20</td>
<td>2.96</td>
<td>13.36</td>
<td>1.61</td>
<td>0.91</td>
<td>21.55</td>
</tr>
<tr>
<td><strong>Mode</strong></td>
<td>16.50</td>
<td>2.00</td>
<td>2.92</td>
<td>19.15</td>
<td>1.80</td>
<td>0.27</td>
<td>#N/A</td>
</tr>
<tr>
<td><strong>Standard Deviation</strong></td>
<td>2.47</td>
<td>7.38</td>
<td>0.63</td>
<td>10.37</td>
<td>1.66</td>
<td>1.41</td>
<td>58.66</td>
</tr>
<tr>
<td><strong>Sample Variance</strong></td>
<td>6.10</td>
<td>54.52</td>
<td>0.40</td>
<td>107.60</td>
<td>2.76</td>
<td>1.98</td>
<td>3440.59</td>
</tr>
<tr>
<td><strong>Kurtosis</strong></td>
<td>-0.19</td>
<td>2.53</td>
<td>0.20</td>
<td>-2.66</td>
<td>2.58</td>
<td>1.60</td>
<td>2.20</td>
</tr>
<tr>
<td><strong>Skewness</strong></td>
<td>1.03</td>
<td>9.49</td>
<td>0.55</td>
<td>10.98</td>
<td>11.70</td>
<td>2.53</td>
<td>7.76</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>13.09</td>
<td>50.00</td>
<td>4.20</td>
<td>80.36</td>
<td>12.56</td>
<td>7.42</td>
<td>404.26</td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>5.71</td>
<td>0.00</td>
<td>1.22</td>
<td>-46.35</td>
<td>0.46</td>
<td>0.07</td>
<td>-53.22</td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>20.60</td>
<td>50.00</td>
<td>5.22</td>
<td>34.01</td>
<td>13.02</td>
<td>7.49</td>
<td>351.04</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td>2185.25</td>
<td>795.15</td>
<td>452.91</td>
<td>1789.26</td>
<td>322.11</td>
<td>219.58</td>
<td>4918.00</td>
</tr>
<tr>
<td><strong>Count</strong></td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
<td>150.00</td>
</tr>
</tbody>
</table>

Mean value of Capital adequacy Ratio (14.57), followed by Dividend per Share (5.30), Net Interest Margin (3.02), Return on Equity (11.93), Price to Book (2.15), Net NPA to Net Advances (0.07) and Share Returns (32.79).

Volatility of data can be measured by standard deviation. So standard deviation of Capital Adequacy Ratio is (2.47), Dividend per Share (7.38), Net Interest Margin (0.63), Return on Equity (10.37), Price to Book (1.66), Net NPA to Net Advances (1.41) and Share Returns (58.66).

Maximum value of Capital Adequacy Ratio is (20.60) of Yes Bank in 2010, Dividend per Share (50.00) of IndusInd Bank in 2013, Net Interest Margin (5.22) of Kotak Mahindra Bank in 2010, Return on Equity (34.01) of DCB Bank in 2016, Price to Book (13.02) of IndusInd Bank in 2014, Net NPA to Net Advances (7.49) of Lakshmi Vilas Bank and Share Returns (351.04) of IndusInd Bank in 2010.

Minimum value of Capital Adequacy Ratio is (7.51) of DCB Bank in 2016, Dividend per Share (0.00) was paid my many banks which includes (Axis Bank, City Union Bank, DCB Bank, Dhanlaxmi Bank, IndusInd Bank, Jammu & Kashmir Bank, Karnataka Bank, Laksami Vilas Bank and Yes Bank) , Net Interest Margin (1.02) of Karnataka Bank in 2010, Return on Equity (-46.35) of Lakshmi Vilas Bank in 2019, Price to Book (0.46) IndusInd Bank in 2016, Net NPA to Net Advances (0.07) of Karur Vysya Bank in 2011 and Share Returns (-53.22) of Yes Bank in 2019.
Dividend Per Share (2.53), Net Interest Margin (0.20), Price to Book (2.58), Net NPA to Net Advances (1.60), Share Returns (2.20) are positively skewed whereas Capital Adequacy Ratio (-0.19) and Return on Equity (-2.66) are negatively skewed.

Results of Correlation Analysis

The correlation among variables considered in study has been shown in Table 1.2. There is low positive correlation between Share Returns and Capital Adequacy Ratio (0.13), Price to Book (0.16), Dividend Per Share (0.18) and Return on Equity (0.28). On the other hand there is low negative correlation between Share Returns and Net NPA to Net Advances (-0.33). Lastly, there exists no correlation between Net Interest Margin and Share returns (0.00). In practical perspectives, this is useful for investors to select and decide while investing because this points out that much before the numbers highlight the actual performance of the banks market forces like traders, speculators, inside traders either book profits or cut losses which in turn leave very less returns for the investors who focus only on fundamentals in the short term.

Table 1.2 Results of Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th>Capital Adequacy Ratio</th>
<th>DPS</th>
<th>NIM</th>
<th>ROE</th>
<th>P/B</th>
<th>Net NPA to Net Advances</th>
<th>Share Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Adequacy Ratio</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPS</td>
<td>0.21</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIM</td>
<td>0.51</td>
<td>0.06</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROE</td>
<td>0.30</td>
<td>0.33</td>
<td>0.30</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P/B</td>
<td>0.43</td>
<td>0.02</td>
<td>0.63</td>
<td>0.27</td>
<td>1.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net NPA to Net Advances</td>
<td>-0.34</td>
<td>-0.40</td>
<td>-0.22</td>
<td>-0.67</td>
<td>-0.37</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Share Returns</td>
<td>0.13</td>
<td>0.18</td>
<td>0.00</td>
<td>0.28</td>
<td>0.16</td>
<td>-0.33</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Correlation between Net NPA to Net Advances and Capital Adequacy Ratio (-0.34), Dividend per share (-0.40), Net Interest Margin (-0.22), Return on Equity (-0.67) and Price to Book (-0.37) is negative which means that there is no statistical evidence for the existence of any correlation between the given ratios and Net NPA to Net Advances. This means that investors will not buy stocks which have high Net Performing assets.

Correlation between Net interest Margin and Capital Adequacy Ratio (0.51) and Dividend Per Share (0.06) is positively moderate and low. Net interest margin is an important complement to an overall profitability indicator such as return on assets. Net interest margin can serve as an important indicator of growing tensions or vulnerabilities in the banking sector. Declining net interest margin can be seen as a positive development as well since it suggests greater efficiency of the banking system in redistributing resources. Net interest margin is declining due to greater competition or financial and technological innovations that increase productivity.

Their exist a moderate positive correlation between Price to Book and Net Interest Margin (0.63) and Capital Adequacy Ratio (0.43). On the other hand their exist a low positive correlation between Dividend per Share (0.02) and Return on Equity (0.27). This shows that Price to Book is not a variable which affects many important variables as far as Private Banks are concerned. There also exist a moderate positive correlation between Dividend per Share and Capital Adequacy Rate (0.21).

Correlation relationship between Return on Equity and Net Interest Margin (0.30), Dividend Per Share (0.33) and Capital Adequacy Ratio (0.30) is positive but moderate. This shows that private sector banks profitability do affect the ratios of the companies and industry as a whole.
Even Warren Buffett’s view on ROE is that he would prefer companies that have ROE. This will imply that both the long term stake holders of the company in the form of shareholders are properly taken care of.

**Panel Data Modelling**

We have constructed a regression model including all independent variables in order to control the influence of these variables. The study considers six variables where Share returns considered as dependent variable where rest i.e. Capital Adequacy Ratio, Return on Equity, Price to Book, Dividend Per Share, Net NPA to Net Advances, Net Interest Margin. Regression coefficient (β₁, β₂, β₃…β₆etc.) values signify the change in share price due to variables. The six variables are providing great insight to analyze the performance of banks. Thus, taking into consideration of directional relationship, its intensity i.e. degree of association and lastly, its theoretical thrust two separate regression equation could be derived:

Panel data modelling has been done in two ways i.e. static way. The study considers static panel data modelling under pooled model. The pool ability test considers no heterogeneity or individuality among units exists. Thus, it could be inferred that pooled model considers the units are homogeneous and thus same coefficients could be considered to all units.

The results consider dependent variable as Share Returns and independent variables as Dividend Per Share, Price to Book, Net Interest Margin, Capital Adequacy Ratio, Net NPA to Net Advances and Return on Equity. The table is showing that p value of the overall model are less than 0.05. The value of R Square is (0.378) which means that the independent variables explain on an average approx. 38% of the values of share returns. Dividend Per Share shows a positive relation significant i.e. (2.602) with share returns. Return on Equity has been considered as significant variable having value (3.559). Price to Book has also been considered significant in private sector as the t value is (1.921).

Net interest margin determines the value of the banks as this the core operating revenues of the banks. In the private sector banks, the results show that there is negative significant relation between Share returns and Net Interest Margin (-0.024). Capital adequacy ratio shows significant positive relation in private sector with the value of 1.612. Thus, it could be fairly concluded that these Capital Adequacy Ratio and Share Returns have strong relation. Net NPA to Net Advances is also important and shows negative relation between Share Returns and Net NPA to Net Advances. The value is (-4.222).

**Table 1.3 Results of Panel Data**

<table>
<thead>
<tr>
<th>Equation</th>
<th>R Square</th>
<th>α</th>
<th>β₁</th>
<th>β₂</th>
<th>β₃</th>
<th>β₄</th>
<th>β₅</th>
<th>β₆</th>
<th>t₁</th>
<th>t₂</th>
<th>t₃</th>
<th>t₄</th>
<th>t₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share Returns=α+β₁CAR+β₂DPS+β₃NIM+β₄ROE+β₅P/B+β₆NP A+Ut</td>
<td>0.378</td>
<td>59.8</td>
<td>3.119</td>
<td>1.451</td>
<td>-0.188</td>
<td>1.604</td>
<td>5.506</td>
<td>-13.654</td>
<td>1.612</td>
<td>2.602</td>
<td>-0.024</td>
<td>3.599</td>
<td>1.92</td>
</tr>
</tbody>
</table>

**Conclusion**

The empirical findings of the study reveal that the study analysed the various factors that affects share returns of private banks. Majority of the private banks having are showing high yields. Share returns of banks as expected are positively skewed this provides significant evidences that the banking stocks are outperforming. There are certain outliers have been found in private banks. The performance of the Axis Bank, HDFC, Kotak Mahindra Bank, DCB bank and ICICI Bank are performed well among private banks.
Private Banks are effectively managing their Capital Adequacy Ratio and it has been derived that private banks have low Net NPA to Net Advances. From panel data analysis it has been found that Dividend per share, Return on Equity and Net NPA to Net Advances are having significant impact on share prices. DPS and ROE are having positive and NPA as expected having negative impact on stock prices. The results are imperative for retail and institutional investors while investing banking stocks. The study leaves enough scope of future scope of study, by comparing private and public banks and considering long panel i.e. more than 10 years and lastly rather considering static panel, one could consider dynamic panel.

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References


