

Do Determinants of Bank Stock Price Performance Change Over Time? Evidence from India

Rajveer Rawlin

Ramaiah Institute of Management, Bangalore

&

Ramaswamy Shanmugam

PSG College of Technology, Peelamedu, Coimbatore

Abstract : Banking stocks have been hitting new highs off late. However asset quality issues that have plagued the banking sector over the past five years linger in the back ground. This paper seeks to study the influence of key internal determinants on the stock price performance of listed banks in India and to see if these determinants change or remain the same over time. The stock price measure chosen was the Market Capitalization / Total Assets. The internal determinants chosen for the study comprised of a key bank metric the deposit/credit ratio, income measures that include interest income/average working funds and non interest income/average working funds, a key productivity measure in business per employee, an important profitability in profit per employee and risk factors that include the capital adequacy ratio and %Net NPA. The influence exerted by the determinants on share price performance as measured by Market Capitalization / Total Assets varied across years. Non interest income/average working funds, a measure of fee based income and the capital adequacy ratio proved to be the key determinants of share price performance. Stakeholders of banks should keep these determinants in mind as they seek to evaluate and understand the rapidly growing Indian banking landscape.

Keywords: *Stock price performance, Determinants, Indian Banking Sector, Market capitalization, NPA, Capital Adequacy*

1. Introduction:

Banking stocks in India have been on a tear off late hitting all time highs. However all is not well with the banking sector as asset quality issues still remain in the background as evidenced by recent quarterly earnings reports. With the Reserve Bank of India (RBI) implementing Basel III norms for the banking sector banking margins could come under pressure yet again. Given that the banking sector is often the life blood of the economy it would be useful to identify key drivers of the performance of bank stocks. It would also prove useful to know if these drivers have remained the same or have changed over time.

The stock prices of banks are influenced by several factors. These include but are not limited to changes in bank profitability (Chu and Lim, 1998), bank specific risks (Adenso-Diaz and Gascon, 1997), microeconomic factors such as net asset value per share, dividend percentage, and earnings per share (Uddin, 2009), changes in operating and cost efficiency (Beccalli et al., 2006) and earnings announcements (Seetharaman and Raj, 2011).

The profitability of a bank often a key driver of share price performance is predominantly driven by a series of internal and external factors. The internal determinants of bank profitability include but are not limited to bank size, capital, risk management procedures adopted, expenses, and diversification (Molyneux and Thornton, (1992); Goddard et al., (2004); Bodla and Verma, (2006)). External determinants of bank profitability include both industry structural determinants such as market concentration, industry size and ownership, and macroeconomic determinants such as inflation, interest rates, money supply and Gross Domestic Product (GDP) (Athanasoglou et al., (2008); Chirwa, (2003)).

In the current study we focus primarily on the relationship of a selected group of internal determinants with the stock price performance of India's listed banks as measured by the market capitalization to total assets ratio. The internal factors chosen include key bank metrics, income measures, productivity measures and risk factors over the ten year period from 2006-2015.

2. Literature Review:

There are several factors that impact the share price performance of banks which have been identified in some earlier studies. Adenso-Diaz and Gascon, 1997 tried to establish a relationship between stock performance and four different measures of partial efficiency namely production costs, branch network distribution, systematic risk and specific risk for Spanish banks using Data Envelopment Analysis (DEA). Their findings suggest that bank-specific risks are most influential in determining stock performance. Using DEA, Chu and Lim, 1998 evaluated the relative cost and profit efficiency of six Singapore-listed banks from 1992 to 1996. They found that share price performance was influenced by changes in profits rather than cost efficiency. Ghauri, 2014 studied 15 listed banks on the Karachi stock exchange. He specifically looked at the effect of size, dividend yield, return on assets, and asset growth on the share price. He found that most of the variables did not have a significant relationship with the share price.

Uddin, 2009 studied the impact of micro and macro economic factors on share price performance of bank leasing and insurance companies in the Dhaka stock exchange in Bangladesh through multiple regression analysis. He found a linear relationship between market returns and some internal determinants such as net

asset value per share, dividend percentage, and earnings per share. The relationship between market returns and macro economic factors was however not statistically significant. Beccalli et al., 2006 studied the relationship between cost efficiency and share price performance of selected European Banks. They found that changes in operating efficiency resulted in changes in stock prices. They also found that share price performance of cost efficient banks was significantly better than their inefficient peers. Menaje, Jr, 2012 studied the impact of variables such as Earnings per Share, Cash Flows per Share, Cash Dividend per Share, Inflation Rate and the 3-month T-bill rate on the share price of 10 publicly listed banks in the Philippines with a multiple regression. He found that only the 3-month Treasury bill had a negative impact on share price. All other variables did not have any significant effect on bank share prices.

Seetharaman and Raj, 2011 studied the impact of Earnings per share (EPS) and earnings announcements on the share price performance of a Malaysian bank. They found a very strong positive correlation between the Bank's EPS and share price. They also found earnings announcements had a significant impact on the share price performance of the bank. Ali and Chowdhury, 2010 find no significant responses in the share prices of 25 listed Private Commercial Banks (PCBs) in Bangladesh to dividend announcements. Thus we attempt to add to the existing body of literature by studying a wider range of potential determinants of bank share price performance over a larger time frame.

3. Methodology:

This study covers all 40 listed banks in India from the financial year ending March 2006 to the financial year ending March 2015. It used historical data to compare the relationship of a series of independent variables on the share price performance of India's listed private and public sector banks. All data used in the study was obtained from the Capitaline (www.capitaline.com) research data base and RBI reports. The following variables were chosen:

3.1 Independent Variables:

Key bank metric

The Deposit/Credit Ratio

Income Measures

Interest Income/Average Working Funds

Non Interest Income/Average Working Funds which is a measure of fee based income.

Productivity measure

Business per employee

Profitability measure

Profit per employee

Risk factors

The capital adequacy ratio

%Net Non Performing Assets (NPA)

Dependent Variable:

Bank Share Price Performance as measured by the Market Capitalization to Total Assets

The relationship between the above variables was analyzed with the SPSS 18.0 package. Q-Q plots were used to ascertain normality of the data. Correlation coefficients were determined to study the relationship between the respective variables. P values were used to assess the statistical significance of the correlations observed at 95% confidence intervals. F values from Anova were also used to validate the statistical significance of the data.

Results:

Table 1:

Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2006

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.295	-	0.086	3.138
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.142	+	0.416	0.680
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.734	+	0.000	38.509
Market Capitalization / Total Assets	Business-per-Employee	0.058	+	0.741	0.111
Market Capitalization / Total Assets	Profit-per-Employee	0.175	+	0.321	1.014
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.083	-	0.636	0.228
Market Capitalization / Total Assets	%Net NPA	0.283	-	0.099	2.670

Table 1 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 2:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2007**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.300	-	0.072	3.452
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.337	+	0.041	4.492
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.597	+	0.000	19.416
Market Capitalization / Total Assets	Business-per-Employee	0.013	+	0.940	0.006
Market Capitalization / Total Assets	Profit-per-Employee	0.170	+	0.314	1.044
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.223	+	0.184	1.839
Market Capitalization / Total Assets	%Net NPA	0.155	+	0.361	0.859

Table 2 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Interest Income / Average Working Funds and Non Interest Income / Average Working Funds. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 3:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2008**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.307	-	0.060	3.757
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.366	+	0.024	5.567
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.559	+	0.000	16.334
Market Capitalization / Total Assets	Business-per-Employee	0.102	-	0.544	0.375
Market Capitalization / Total Assets	Profit-per-Employee	0.175	+	0.293	1.140
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.516	+	0.001	13.085
Market Capitalization / Total Assets	%Net NPA	0.141	+	0.400	0.725

Table 3 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds, Interest Income / Average Working Funds and the Capital Adequacy Ratio. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 4:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2009**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.392	-	0.015	6.546
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.530	+	0.001	14.053
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.326	+	0.046	4.288
Market Capitalization / Total Assets	Business-per-Employee	0.245	-	0.138	2.305
Market Capitalization / Total Assets	Profit-per-Employee	0.055	+	0.742	0.110
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.453	+	0.004	9.276
Market Capitalization / Total Assets	%Net NPA	0.268	+	0.104	2.781

Table 4 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds, Interest Income / Average Working Funds and the Capital Adequacy Ratio and negatively correlated to the Deposit Credit Ratio. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 5:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2010**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.568	-	0.000	18.097
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.350	+	0.027	5.310
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.685	+	0.000	33.577
Market Capitalization / Total Assets	Business-per-Employee	0.146	-	0.369	0.825
Market Capitalization / Total Assets	Profit-per-Employee	0.310	+	0.052	4.038
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.487	+	0.001	11.789
Market Capitalization / Total Assets	%Net NPA	0.007	+	0.964	0.002

Table 5 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds, Interest Income / Average Working Funds, Profit-per-Employee and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to the Deposit-Credit Ratio. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 6:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2011**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.589	-	0.000	20.219
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.087	+	0.595	0.288
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.597	+	0.000	21.055
Market Capitalization / Total Assets	Business-per-Employee	0.207	-	0.201	1.694
Market Capitalization / Total Assets	Profit-per-Employee	0.275	+	0.086	3.114
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.745	+	0.000	47.489
Market Capitalization / Total Assets	%Net NPA	0.292	-	0.068	3.537

Table 6 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to the Deposit-Credit Ratio. The correlation with the other variables was not statistically significant at the 95% confidence level.

Table 7:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2012**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.573	-	0.000	18.607
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.278	+	0.082	3.183
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.728	+	0.000	42.829
Market Capitalization / Total Assets	Business-per-Employee	0.335	-	0.035	4.807
Market Capitalization / Total Assets	Profit-per-Employee	0.324	+	0.041	4.466
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.668	+	0.000	30.633
Market Capitalization / Total Assets	%Net NPA	0.458	-	0.003	10.072

Table 7 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Non Interest Income / Average Working Funds, Profit-per-Employee and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to %Net NPA, Business-per-Employee and the Deposit-Credit Ratio. The correlation with the other variables was not statistically significant at the 95% confidence level

Table 8:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2013**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.541	-	0.000	15.736
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.332	+	0.036	4.720
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.738	+	0.000	45.404
Market Capitalization / Total Assets	Business-per-Employee	0.414	-	0.008	7.844
Market Capitalization / Total Assets	Profit-per-Employee	0.431	+	0.005	8.668
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.701	+	0.000	36.697
Market Capitalization / Total Assets	%Net NPA	0.536	-	0.000	15.303

Table 8 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Interest Income / Average Working Funds, Non Interest Income / Average Working Funds, Profit-per-Employee and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to %Net NPA, Business-per-Employee and the Deposit-Credit Ratio.

Table 9:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2014**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.529	-	0.000	14.783
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.348	+	0.028	5.227
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.710	+	0.000	38.524
Market Capitalization / Total Assets	Business-per-Employee	0.476	-	0.002	11.143
Market Capitalization / Total Assets	Profit-per-Employee	0.465	+	0.002	10.503
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.776	+	0.000	57.505
Market Capitalization / Total Assets	%Net NPA	0.486	-	0.000	11.775

Table 9 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Interest Income / Average Working Funds, Non Interest Income / Average Working Funds, Profit-per-Employee and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to %Net NPA, Business-per-Employee and the Deposit-Credit Ratio.

Table 10:**Relationship between Bank Stock Price Performance and Key Performance Indicators for Financial Year Ending March 2015**

Dependent Variable (Bank Stock Price Performance)	Independent Variable (Performance Indicators)	Correlation Coefficient (R)	Relationship	P Value (95% Confidence)	F Value (Anova)
Market Capitalization / Total Assets	Deposit – Credit Ratio	0.530	-	0.001	14.453
Market Capitalization / Total Assets	Interest Income / Average Working Funds	0.364	+	0.023	5.646
Market Capitalization / Total Assets	Non-Interest Income / Average Working Funds	0.776	+	0.000	55.826
Market Capitalization / Total Assets	Business-per-Employee	0.468	-	0.003	10.378
Market Capitalization / Total Assets	Profit-per-Employee	0.542	+	0.000	15.411
Market Capitalization / Total Assets	Capital Adequacy Ratio	0.688	+	0.000	33.270
Market Capitalization / Total Assets	%Net NPA	0.554	-	0.000	16.385

Table 10 shows the results of correlation analysis between the respective dependent and independent variables. Market Capitalization / Total Assets was positively correlated to Interest Income / Average Working Funds, Non Interest Income / Average Working Funds, Profit-per-Employee and the Capital Adequacy Ratio. Market Capitalization / Total Assets was negatively correlated to Net NPA, Business-per-Employee and the Deposit-Credit Ratio.

Table 11:**Determinants of Bank Stock Price Performance in the Order of Influence**

Financial Year Ending March	Determinants of Bank Stock Price Performance
2006	Non Interest Income / Average Working Funds
2007	1) Non Interest Income / Average Working Funds 2) Interest Income / Average Working Funds
2008	1) Non Interest Income / Average Working Funds 2) Capital Adequacy Ratio 3) Interest Income / Average Working Funds
2009	1) Interest Income / Average Working Funds 2) Capital Adequacy Ratio 3) Deposit – Credit Ratio 4) Non Interest Income / Average Working Funds
2010	1) Non Interest Income / Average Working Funds 2) Deposit – Credit Ratio 3) Capital Adequacy Ratio 4) Interest Income / Average Working Funds 5) Profit-per-Employee
2011	1) Capital Adequacy Ratio 2) Non Interest Income / Average Working Funds 3) Deposit – Credit Ratio
2012	1) Non Interest Income / Average Working Funds 2) Capital Adequacy Ratio 3) Deposit – Credit Ratio 4) %Net NPA 5) Business-per-Employee 6) Profit-per-Employee
2013	1) Non Interest Income / Average Working Funds 2) Capital Adequacy Ratio 3) Deposit – Credit Ratio 4) %Net NPA 5) Profit-per-Employee 6) Business-per-Employee 7) %Interest Income / Average Working Funds
2014	1) Capital Adequacy Ratio 2) Non Interest Income / Average Working Funds 3) Deposit – Credit Ratio 4) %Net NPA 5) Business-per-Employee 6) Profit-per-Employee 7) Interest Income / Average Working Funds
2015	1) Non Interest Income / Average Working Funds 2) Capital Adequacy Ratio 3) %Net NPA 4) Profit-per-Employee 5) Deposit – Credit Ratio 6) Business-per-Employee 7) Interest Income / Average Working Funds

Table 11 shows a summary of the results obtained for Market Capitalization / Total Assets from tables 1-10. The most important influencer of Market Capitalization / Total Assets was Non Interest Income / Average Working Funds. This was followed by the Capital Adequacy Ratio and then the Deposit – Credit Ratio. Interest Income / Average Working Funds was also relevant in several years. %Net NPA, Business-per-Employee and Profit-per-Employee were important influencers of Market Capitalization / Total Assets in the last four years.

4) Discussion and Analysis:

This study examined the influence of a few selected internal determinants on the share price performance of all 40 listed banks in India over a 10 year period spanning from 2006-2015. This includes 24 public and 16 private sector banks. The share price performance measure chosen was the Market Capitalization to Total Asset Ratio. This measure looks at share price performance as a function of the bank's asset base. Based on a review of the body of existing literature the internal determinants chosen for the study comprised of key bank metrics such as the Deposit/Credit Ratio, income measures covering Interest income/average working funds and Non interest income/average working funds which is a measure of fee based income, a key productivity measures in business, a profitability measure in profit per employee and risk factors the capital adequacy ratio and Net NPA.

The influence exerted by the determinants on Market Capitalization / Total Assets varied across years (Table 1-10). The single most important determinant of Market Capitalization / Total Assets was Non-interest income/average working funds (Table 11). Given the asset quality issues that have been plaguing the banking sector, Indian banks particularly the private players have been rapidly diversifying their traditional income streams with fee based income sources and it is no surprise that investors view this as a key barometer of stock market performance. In an earlier study Sufian, (2009) found Malaysian banks with a higher proportion of income from non-interest sources proved to be relatively more profitable.

The second most influential determinant of Market Capitalization / Total Assets was the capital adequacy ratio (Table 11). Following the gradual implementation of Basel III norms by the Reserve Bank of India (RBI) for the Indian banking sector capital adequacy has taken centre stage with well capitalized banks often out performing their weaker counterparts. The capital adequacy ratio was an important determinant of share price performance during periods of crisis such as the great recession of 2008-2009 and deficit crisis in 2013. In a recent study Zarrouk et al., 2016 found that bank profitability in the Middle East and North Africa (MENA) region was positively affected by the level of capitalization. In a study done on Tunisian banks from 1980-2000, Ben Naceur and Goaid, (2008) found that banks with relatively high amount of capital exhibited higher net-interest margin and profitability levels.

The deposit – credit ratio a measure of bank lending also proved to be an important determinant of share price performance. It influenced Market Capitalization / Total Assets negatively (Table 11). While reducing the deposit credit ratio can help in improving share price performance reducing it too much can possibly result in higher NPA's and lower asset quality. Sufian, (2009) found Malaysian banks with a higher loan concentration proved to be relatively less profitable.

Interest income / Average working funds a traditional measure of income generation for banks from their lending operations was an important determinant of Market Capitalization / Total Assets during several years of the study (Table 11). In an earlier study Ganesan, (2001) found that interest income was a key determinant of profitability of public sector banks in India.

% Net NPA was an important determinant of Market Capitalization / Total Assets in the last four years of the study. In fact asset quality issues have been plaguing the Indian banking sector over the last five years and it is no surprise that it is an important determinant of share price performance. In a recent study that involved U.S. regional banks during the period from 1994 to 2011 Growe et al., (2014) found that provisions for credit losses negatively impact profitability. Miller and Noulas, (1997) found that loan loss provision and net charge offs had a significant negative effect on the profitability of large commercial banks in the US.

Business per employee a measure of productivity of the work force was also an important determinant of %Market Capitalization / Total Assets in the last four years of the study (Table 11), influencing share price performance negatively. This is a bit of a surprise as one would logically expect the reverse to be true. Ben Naceur and Goaid, (2001) found that the best performing Tunisian banks are those that improve labor and capital productivity.

Profit per employee a measure of profitability was also an important determinant of Market Capitalization / Total Assets (Table 11), influencing share price performance positively in the last four years of the study. Seetharaman and Raj, 2011 found a very strong positive correlation between a Malaysian banks EPS and its share price.

There are some interesting implications in this study for different stake holders of banks. Bank managers keen on improving their share price performance versus their peers must focus on improving their fee based income streams and capital adequacy. In addition they must optimize their lending without compromising asset quality.

Investors who tend to focus more on historical returns must identify banks with diversified income streams that augment traditional income sources with fee based income. In addition banks which are better capitalized, profitable and have better asset quality could also deliver superior returns over time. Finally our banking regulator the RBI must focus on income streams of the banks to ensure they are well diversified and implement strict asset quality norms for the banking sector as they seek to improve the dynamically evolving Indian banking landscape.

5) Conclusion:

This study examined the influence of a few selected internal determinants on the share price performance of all listed banks in India over a 10 year period. The influence exerted by the determinants on share price performance varied across years. The stock price performance measure chosen was the Market Capitalization / Total Assets. The internal determinants chosen for the study comprised of a key bank metric the deposit/credit ratio, income measures the interest income/average working funds and non interest income/average working funds, a measure of fee based income, a key productivity measure in business per employee, a key profitability measure in profit per employee and risk factors that include the capital adequacy ratio and Net NPA. Fee based income proved to be the key determinant of share price performance. Capital adequacy and lending measures also played an important role in share price performance. Key stake holders of banks should keep these determinants in mind as they seek to understand and evaluate the ever changing Indian banking landscape.

6) Limitations:

The study is done only over a period of 10 years. The study only considered a select group of internal determinants. External determinants like macro-economic factors and exchange rates are not considered. Additionally qualitative factors such as customer preferences and customer service are not considered. The impact of technology is also not considered. The study only considered listed banks in India.

REFERENCES

Adenso-Diaz, B. and F. Gascon (1997). Linking and Weighting Efficiency Estimates with Stock Performance in Banking Firms. Wharton School Working Paper, 97/21.

Ali, M.B. and T.A. Chowdhury. (2010). Effect of Dividend on Stock Price in Emerging Stock Market: A Study on the Listed Private Commercial Banks in DSE. *International Journal of Economics & Finance*. 2(4): 52-64.

Athanasoglou, P.P., S.N. Brissimis, and M.D. Delis. (2008) "Bank-Specific, Industry-Specific and Macroeconomic Determinants of Bank Profitability". *Journal of International Financial Markets, Institutions & Money*, 18, (2) : 121-136.

Beccalli, E., Casu, B. and C. Girardone. (2006), Efficiency and Stock Performance in European Banking. *Journal of Business Finance & Accounting*. 33: 245–262.

Ben Naceur, S. and M. Goaid. (2008). The Determinants of Commercial Bank Interest Margin and Profitability: Evidence from Tunisia. *Frontiers in Finance and Economics* 5, no. 1 106-30.

Ben Naceur S. and M. Goaid. (2001). The determinants of the Tunisian deposit banks' performance. *Applied Financial Economics*, 11(3) : 317–319.

Bodla, B.S. and R. Verma. (2006). Determinants of profitability of Banks in India: A Multivariate Analysis. *Journal of Services Research*, 6 (2) : 75-89.

Chirwa, E. W. (2003). Determinants of Commercial Banks Profitability in Malawi: A Co Integration Approach. *Applied Financial Economics*, 13 (8) : 565-571.

Chu, S.F. and G.H. Lim (1998). Share Performance and Profit Efficiency of Banks in an Oligopolistic Market: Evidence from Singapore. *Journal of Multinational Financial Management*, 8 : 155–68.

Ganesan, P. (2001). Determination of profits and Profitability of Public Section Banks in India: A Profit Function". *Journal of Financial Management & Analysis & Analysis*, 14 (1) : 27-37.

Ghauri, S. M. K. (2014). Determinants of changes in share prices in banking sector of Pakistan. *Journal of Economic and Administrative Sciences*, 30(2), 121–130.

- Goddard, J., P. Molyneux, and J.O.S. Wilson. (2004). The Profitability of European Banks: A Cross-Sectional and Dynamic Panel Analysis, *Manchester School*, 72(3) : 363-381.
- Growe , G., M. DeBruine , J. Y. Lee & J. F. T. Maldonado (2014). The Profitability and Performance Measurement of U.S. Regional Banks Using the Predictive Focus of the “Fundamental Analysis Research”, *Advances in Management Accounting*. 24 : 189 – 237
- Menaje, Jr. P.M. (2012). Impact of Selected Accounting and Economic Variables on Share Price of Publicly Listed Banks in the Philippines from 2002-2008. *DLSU Business & Economics Review*. 22 (1): 35-62.
- Miller, S. M. and A. G. Noulas (1997). Portfolio Mix and Large-Bank Profitability in the USA, *Applied Economics*, 29(4) : 505-512.
- Molyneux, P. and J. Thornton. (1992). Determinants of European bank Profitability: A note. *Journal of Banking & Finance*, 16 (6) : 1173-1178.
- Seetharaman, A. and J.R. Raj. (2011). An Empirical Study on the Impact of Earnings per Share on Stock Prices of a Listed Bank in Malaysia. *International Journal of Applied Economics & Finance*. 5 (2) : 114-126.
- Sufian, F. (2009). Factors Influencing Bank Profitability in a Developing Economy: Empirical Evidence from Malaysia. *Global Business Review* 10 (2) : 225-41.
- Uddin, M.B. (2009). Determinants of market price of stock: A study on bank leasing and insurance companies of Bangladesh. *Journal of Modern. Accounting & Auditing*. July 2009, 5 (7):1-7.
- Zarrouk, H., Jedidia, K. Ben, & Moualhi, M. (2016). Is Islamic bank profitability driven by same forces as conventional banks? *International Journal of Islamic and Middle Eastern Finance and Management*, 9(1), 46–66.