# EMPIRICAL COMPARISON OF MODERN APPROACH WITH TRADITIONAL APPROACH FOR CREATION OF SHAREHOLDER VALUE IN INDIAN BANKING SECTOR

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Abstract- This study investigates the importance of economic value added for the shareholders' value maximization. Economic value added (EVA) is a value based performance measurement tool that helps to settle down the conflict issues between managers and shareholders. Using a sample of 40 Indian commercial listed Banks and using panel data with fixed effects during the period of 2001 to 2015, the findings of the study revealed that there is a positive and significant relationship between EVA and shareholder's value maximization in case of public limited banks and overall Indian banks but in case of Private limited banks, DPS was found to have significant relationship with shareholder value. The more the managers produce EVA, the more shareholders' wealth maximization will be created in public limited banks and in case of private banks DPS has to be focussed. The finding shows significant support for EVA and DPS, but it was found that EVA was not reported by the Banks and is not been used by investors for their investment decisions. Thus it is recommended for the managers to focus more attention to the criteria of EVA in evaluating shareholder's value of banks.

Key words- Shareholder value creation, EVA, DPS, ROE

## I. INTRODUCTION

Traditional performance measures appeared in early 1900s and have been used since then, in various forms, to measure the financial performance of firms. Since the performance measures (traditional and modern) are many and appeared in different variations, this study is focused on the most popular mentioned in the literature. Those are, from the traditional measures, EPS, DPS, ROE and from the modern value-based measures, EVA.

The traditional accounting measures of corporate performance such as DPS, ROE, and EPS are meeting up with ever increasing criticism and dissatisfaction. There are traditional measures like earnings per share (EPS), dividend per share (DPS), return on equity (ROE), return on assets (ROA), and the like have been used by the shareholders to measure performance appraisals. Such traditional measures have been criticized due to not inclusion of cost of capital resources of the firm (Hasani and Fathi, 2012). Thus in order to overcome such issues economic value based measures like economic value added (EVA) were proposed (Al Mamun, Entebang & Mansor, 2012; Erasmus, 2008). Academic literature argues that these measures provide a comparatively low guide to shareholder value. Rappaport's pioneering work (1986, 1998) that focused on shareholder value took into account the shortcomings of the traditional accounting measures, thus preparing the way for a value-based management (VBM) approach. This new approach has gained widespread approval as it outlines two important propositions: first, that shareholder value creation is the primary corporate objective, and secondly, that economic income of a company, as expressed by its EVA, is the

primary measure of corporate performance (Davies, 2000). But the focus of this type study in financial firms is very few. It has become prime necessity to use appropriate performance measure for shareholder value creation in Banks.

This study extends prior studies on the relationship between value-based Performance metrics and shareholder value creation. The objective of this study was to empirically examine that EVA is highly associated with MVA. The purpose of the study, though, was not to fully explain the determinants of MVA, but only to show how well EVA acts as a genuine explanatory variable for MVA, in order to its appropriateness for performance iustify measurement and shareholder value creation. Traditional performance measures such as DPS, EPS and ROE more commonly used value-based performance metrics used for the study in Indian banks for predicting the shareholder value so they were also considered to highlight the value-relevance of EVA vis-a-vis these measures in predicting shareholder value.

This study will contribute to the growing literature on performance measurements; it made use of pooled time-series cross-sectional data, which certainly allows for greater empirical certainty on the usefulness of EVA. Moreover, the current study is the comparison study to use data on four value-based performances metrics-namely, EVA, EPS, DPR and ROE and covers a more recent period in the context of Indian commercial banks performance and shareholder value creation. Thus, this study provides evidence that would prove useful to policy makers who are interested in EVA as a replacement or a Empirical Comparison of Modern Approach With Traditional Approach For Creation of Shareholder Value in Indian Banking Sector

complement to traditional accounting-based performance metrics for their decision-making and compensation purposes.

# **II. LITERATURE REVIEW**

The shareholders' value depends on the performance of the banks. The term 'performance' cannot be put into a tight framework of definition. It is an ambiguous phenomenon and it can be interpreted and measured in different ways (Goodman and Pennings, 1977); and (Millward, 1982). Performance can be assessed by different users from their own points of view. Performance measure used for banks can be classified into traditional, economic and market based measures. The traditional measures like Return on Capital Employed (ROCE), Return on Net worth (RONW), Earnings Per Share (EPS), etc., do not represent the shareholders' true return, because all these measures consider only the borrowing cost and not the cost of equity.

EVA is a company performance measurement introduced in the corporative environment by General Motors in 1920 and then forgotten, until Stern Stewart Company; a consulting company from New York reintroduced it in the '80s, as a replacement for the traditional value measurements (Andrew, 1998). It was found that Economic Value Added was the most known instrument for measuring the managerial performance by means of the value created for the shareholders. EVA is an indicator measuring the corporative performance in a different manner from that of the other indicators, used until it was introduced on the market, because it suggests profit adjustment by the capital cost, (Andrew, 1998).

It is considered that EVA offers a multilateral perspective on the company performance. Managers are guided to focus their attention not only on the profit and loss account, but also on the balance sheet. EVA is considered better than TSR because it offers a basis for comparison between companies, as it also uses in the calculation the capital cost, which also takes into account the risk degree of the company, (Fernández, 2002).

There are some changes to be made to the standard method of calculating EVA when it comes to banks as in banks equity approach is more preferred. Due banks peculiar characteristics the traditional ratios and other performance measures has to be modified in order to correctly performance of banks.

In the case of banks, the equity approach is recommended: (Thampy Ashok, 2000),

EVA = Adjusted Net Profit - (Equity x Cost of Equity)

Adjusted Profit after Tax: The profit after tax has been taken as the base for calculation of EVA. Adjustments for non- recurring events have been made to this to exclude the non-operating income or expense. This adjustment has been made on an after tax basis.

Economic capital has been calculated to put the charge to get the economic profit. The starting point is shareholders equity to which reserves and surplus has been added to arrive at the net worth. Cost of equity. The Capital Asset Pricing Model is the basic model used for calculating cost of equity.

Cost of equity = Risk free rate + Beta (Market risk premium)

The results obtained by means of the economic value added method answer the question regarding the capital use efficiency and company value increase. We shall analyse three variants of the relationship between the value of the EVA indicator and investors' behavior (Fernández, 2002):

- i) If EVA>0, the relevant company or its departments gain more than cost of capital therefore value creation occurs. The positive value of the EVA value shows an efficient use of the capital and represents an index of company value increase.
- ii) If EVA=0, the analyzed company or its departments gain exactly as the capital cost level, meaning that the relevant company has the same value as in the moment investments were made in it. This is a notable feat, because the company capital owners recovered their investment and compensated the assumed risk.
- iii) If EVA<0, the analysed company or some of its departments do not recover the capital cost. Investors could have obtained a higher profit elsewhere, with the same risk. The negative value of the EVA indicator shows an inefficient use of the capital and a decrease of the company value.

From an investor's point of view, MVA is the best external measure of a company'sperformance. (Stewart, 1991) states that MVA is a cumulative measure of corporate performance and that it represents the stock market's assessment from a particular timeonwards of the NPV of all a company's past and projected capital projects.

The market value added (MVA) is the difference betweenthe total market value of the company and the economic capital (Firer, 1995, Reillyand Brown, 2003). The economic capital, also called the invested capital (IC), is theamount that is "put into" the company and is basically the fixed assets plus the networking capital.

MVA = Market value of company - IC

EVA is an internal measure of performance that determines MVA. (Stewart, 1991) defines EVA as follows: "A company's EVA is the fuel that fires up its MVA." EVA takes into account the full cost of capital, including the cost of equity. A survey of the available research literature shows results from Empirical Comparison of Modern Approach With Traditional Approach For Creation of Shareholder Value in Indian Banking Sector

different sources that conclude that EVA has a stronger correlation with MVA than the other accounting measures tested. These supporters of EVA include (O'Byrne, 1996). However, following the initial strong support for EVA, some criticisms have been aired, along with research results indicating that EVA in fact does not have superior explaining power of MVA, comparedto the other measures. Researchers that have come out criticising EVA include (Kramer & Pushner, 1997). The usefulness of traditional accounting measures such as the earnings per share (EPS), return on assets (ROA) and return on equity (ROE) and their effect onshareholder (market) value, has been the topic of discussion for some time. Strongarguments have been raised in favour of EVA. The purpose to investigate the strength of the relationship between EVA and other traditional accountingmeasures relative to MVA. The reason why this may be of interest to financial managers and analysts is that the identification of the driver(s) with the strongest impact on MVA may beextremely helpful in developing financial strategies that would optimize value creation forshareholders

# **III. RESEARCH OBJECTIVE**

The main aim of the study is to find the answer to the following research question:

Does a statistical relationship between EVA and shareholder value (MVA) dominate other commonlyused value-based measures in explaining MVA if it does, how much of the variation of the shareholder value can be explained by EVA?

To compare and move the benchmark of performance of banks from traditional performance measure to modern performance measures EVA, that is move from accounting profit to economic profit and shareholder wealth creation.

#### **Research Methodology:**

In this study comparison of Traditional and modern performance measure for measuring the Performance of Banks in order to decide which performance measure is more compactable for the Indian commercial banks.

## **Research Design:**

The nature of this research is discrete and flexible in addressing the research aim which is to examine the possible bank in the India with a particular focus on the period from 2001 to 2015. We have chosen a descriptive research design to more openly achieve the research objectives which are difficult to address in exploratory research design (Creswell, 2003). In addition, this study is mainly based quantitative or empirical data and therefore detailed analyses are required which are easily achievable in descriptive design.

## Sample data and its sources:

Secondary data has been used for this study. The macro economic data for India has been collected from Data book for planning commission. The bank

wise data has been collected from RBI, CMIE – prowess and from the annual reports of each bank was considered. The present work has considered almost all the major banks in India which counted up to 40 banks and the time period is from 2001 to 2015.

The population of this study is the Indian commercial banks. Currently 48 listed Public and private banks are running their operations in the India. However, 40 banks are selected for this study. The data of other banks such as co-operative and foreign banks are not considered to avoid its possible impact on research findings and conclusions.

There are currently (27) Twenty Seven Public Sector Banks out of which (19) Nineteen is Nationalised Bank, (6) Six are SBI & its Associates and rest (2) two are other Public Sector Banks. There are currently (21) Twenty One Private Sector Banks are Operating in India.

We have covered (24) Twenty four Public Sector Banks and (16) sixteen Private Sector

Banks for our empirical study for 15 years i.e. (2001-2015).



Figure: 1 - Banks Adopted for Empirical Study:

#### Table: 1 - Banks Adopted for Empirical Study:

Bank Name	Type of Bank			
		Stocks in India		
Allahabad Bank	Public Sector	29 <sup>th</sup> Nov. 2002		
Andhra Bank	Public Sector	1 <sup>st</sup> Apr. 2001		
Bank of Baroda	Public Sector	19 <sup>th</sup> Feb. 1987		
Bank of India	Public Sector	30 <sup>th</sup> Apr. 1987		
Bank of Maharashtra	Public Sector	12 <sup>th</sup> Apr. 2004		
Canara Bank	Public Sector	23 <sup>1d</sup> Dec. 2002		
Dena Bank	Public Sector	15 <sup>th</sup> Jan. <mark>1</mark> 997		
Federal Bank	Private Sector	8 <sup>th</sup> Feb. 1995		
HDFC Bank	Private Sector	8 <sup>tt</sup> Nov. 1995		
ICICI Bank	Private Sector	17 <sup>th</sup> Sep. 1997		
Indian Bank	Public Sector	1 <sup>st</sup> Mar. 2007		
	Allahabad Bank Andhra Bank Bank of Baroda Bank of India Bank of Maharashtra Canara Bank Dena Bank Federal Bank HDFC Bank ICICI Bank Indian Bank	Allahabad BankPublic SectorAndhra BankPublic SectorBank of BarodaPublic SectorBank of IndiaPublic SectorBank of MaharashtraPublic SectorCanara BankPublic SectorDena BankPublic SectorFederal BankPrivate SectorHDFC BankPrivate SectorICICI BankPrivate SectorIndian BankPublic Sector		

Proceedings of IRF International Conference, 5th January 2017, Bangkok, Thailand. ISBN: 978-93-86291-83-7

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12	Oriental Bank of Commerce	Public Sector	2 <sup>nd</sup> Jul. 1997
13	State Bank of India	Public Sector	1 <sup>#</sup> Mar. 1995
14	Union Bank of India	Public Sector	24 <sup>th</sup> Sep. 2002
15	Vijaya Bank	Public Sector	10 <sup>th</sup> Jan. 2001
16	Axis Bank	Private Sector	16 <sup>th</sup> Nov. 1998
17	Central Bank of India	Public Sector	21 <sup>st</sup> Aug.2007
18	City Union Bank	Private Sector	25 <sup>th</sup> Aug. 1998
19	Corporation Bank	Public Sector	1 <sup>st</sup> Dec. 1997
20	Development Credit Bank	Private Sector	27 <sup>th</sup> Oct. 2006
21	Dhanlaxmi Bank	Private Sector	1 <sup>st</sup> Apr. 2000
22	IDBI Bank	Public Sector	20 <sup>th</sup> Sep. 1995
23	Indian Overseas Bank	Public Sector	7 <sup>th</sup> Dec. 2000
24	Indusind Bank	Private Sector	28 <sup>th</sup> Jan. 1998
25	IngVysya Bank	Private Sector	1 <sup>st</sup> May. 1996
26	Jammu & Kashmir Bank	Private Sector	22 <sup>nd</sup> Jul. 1988
27	Kamataka Bank	Private Sector	10 <sup>th</sup> May 2000
28	KaturVysya Bank	Private Sector	26 <sup>th</sup> Jul. 2000
29	Kotak Mahindra Bank	Private Sector	20 <sup>m</sup> Dec. 1995
30	Lakshmi Vilas Bank	Private Sector	21 <sup>st</sup> Jun. 2000
31	Punjab National Bank	Public Sector	24 <sup>th</sup> Apr. 2002
32	Punjab & Sind Bank	Public Sector	30 <sup>th</sup> Dec. 2010
33	South Indian Bank	Private Sector	8 <sup>th</sup> Dec. 1998
34	State Bank of Bikaner & Jaipur	Public Sector	24 <sup>th</sup> Jan. 1998
35	State Bank of Mysore	Public Sector	20 <sup>th</sup> Apr. 2000
36	State Bank of Travancore	Public Sector	31 <sup>st</sup> Dec. 2001
37	Syndicate Bank	Public Sector	22 <sup>nd</sup> Dec. 1999
38	UCO Bank	Public Sector	9 <sup>th</sup> Oct. 2003
39	United Bank of India	Public Sector	18 <sup>th</sup> Mar. 2010
10			

#### **Tools and Techniques for Analysis**

The data collected for the present analysis is balance panel data. So, the relationship between the dependent and independent variables is obtained from a regression model called panel regression analysis. Because panel data have both cross-sectional and time series dimensions, the application of regression models to fit econometric models are more complex than those for simple cross-sectional data sets. Nevertheless, they are increasingly being used in applied work and the aim of this chapter is to provide a brief introduction. A panel is described as balanced if there is an observation for every unit of observation for every time period and as unbalanced if some observations are missing, the banking data considered is a balanced panel.

Panel (or longitudinal) data are cross-sectional and time-series. There are multiple entities, eachof which has repeated measurements at different time periods.Panel data may have group effects, time effects, or the both, which are analysed by fixed effect and random effect models.

A panel data set contains n entities or subjects (e.g., firms and states), each of which includes tobservations measured at 1 through t time period. Thus, the total number of observations is nt. Ideally, panel data are measured at regular time intervals (e.g., year, quarter, and month). Otherwise, panel data should be analysed with caution. A short panel data set has manyentities but few time periods (small t), while a long panel has many time periods (large t) butfew entities. Panel data have a cross-section (entity or subject) variable and a time-series variable. Panel data models examine group (individualspecific) effects, time effects, or both. Theseeffects are either fixed effect or random effect. Panel data models examine fixed and/or random effects of entity (individual or subject) or time. The core difference between fixed and random effect models lies in the role of dummy variables .If dummies are considered as a part of the intercept, this is a fixed effectmodel. In a random effect model, the dummies act as an error term.

$$Y_{it} = \beta_1 + \sum_{j=2}^k \beta_j X_{jit} + \sum_{p=1}^s \gamma_p Z_{pi} + \delta t + \varepsilon_{it}$$
$$Y_{it} = \beta_1 + \sum_{j=2}^k \beta_j X_{jit} + \alpha_i + \delta t + \varepsilon_{it}$$

A standard specification is

Where Y is the dependent variable, the Xj are observed explanatory variables and the Zp are unobserved explanatory variables.

$$\alpha_i = \sum_{p=1}^s \gamma_p Z_{pi}.$$

The index i refer to the unit of observation, t refers to the time period, and j and p are used to differentiate between different observed and unobserved explanatory variables. A trend term t has been introduced to allow for a shift of the intercept over time. If the implicit assumption of a constant rate of change seems too strong, the trend can be replaced by a set of dummy variables, one for each time period except the reference period.

The Xj variables are usually the variables of interest, while the Zp variables are responsible for unobserved heterogeneity and as such constitute a nuisance component of the model. The following discussion will be confined to the (quite common) special case where it is reasonable to assume that the unobserved heterogeneity is unchanging and accordingly the Zp variables do not need time subscript.

First, however, note that if the Xj controls are so comprehensive that they capture all relevant characteristics of the individual, there will be no relevant observed characteristics. In that case the  $\alpha$ i term may be dropped and a pooled OLS regression may be used to fit the model, treating all the observations for all of the time periods as a single sample. The unobserved effect may be eliminated in many ways; one of the best ways of easily doing this is called Within Groups Fixed Effects Model. In this the mean values of the variables in the observations on a given individual are calculated and subtracted from the data for that individual (Madalla, 2001).

The efficiency of the regression analysis is measured in several ways, for example "R" is a measure of the correlation between the observed value and the predicted value of the criterion variable.

R Square (R2) is the square of this measure of correlation and indicates the proportion of the variance in the criterion variable which is accounted for model In essence; this is a measure of how good a prediction of the criterion variable we can make by knowing the predictor variables.

However, R square tends to somewhat over-estimate the success of the model when applied to the real world, so an Adjusted R Square value is calculated which takes into account the number of variables in the model and the number of observations (participants) our model is based on. This Adjusted R Square value gives the most useful measure of the success of our model. If, for example we have an Adjusted R Square value of 0.75 we can say that our model has accounted for 75% of the variance in the criterion variable (Madalla, 2001).

#### Variables Selected for Study:

Study of modern measure of performance of Value creation that is EVA with traditional measure of performance such as EPS, DPS and ROE. Dependent variables is Market value added Independent variable is EVA, EPS, ROE and DPS **Research Variables:** Dependent variable is MVA which represents shareholder value of banks

MVA = Market value of company – Invested capital Independent variables such as EVA, EPS, ROE and DPS are the variables which represents different performance measure and matrix for creation of shareholder value. EVA = NOPAT - (Equity x Cost of Equity) Earnings per share = (Net Profit after Taxes – Preference Dividends) / Number of Equity Shares ROE = Net income after tax / (Equity share holder capital + reserves – Preliminary expenses) DPS = Total Dividend / Number of Equity share

Regression equation model for the study:  $MVA_{it} = \alpha_0 + \alpha_1 EVA_{it} + e_{it}$ 

 $MVA_{it} = \beta_0 + \beta_1 EPS_{it} + u_{it}$ 

 $MVA_{it} = \gamma_0 + \gamma_1 DPS_{it} + v_{it}$ 

 $MVA_{it} = \chi_0 + \chi_1 ROE_{it} + \Psi_{it}$ 

 $MVA_{it} = \pi 0 + \pi_1 EVA_{it} + \pi_2 EPS_{it} + \pi_3 DPS_{it} + \pi_4 ROE_{it} + \underset{t}{\in}_{t}$ 

#### IV. EMPIRICAL RESULTS AND DISCUSSION

MVA as the dependent variables which is the indicator of shareholder value and EPS, DPS, ROE, EVA are the independent variable which indicate the different performance measures of bank usually selected by the researchers for the measurement of shareholder value .The main motive behind this study is to find the best performance measure for the measuring the shareholder value in case of Indian commercial banks so a comparison study was made between the traditional performance measures and modern performance measures of shareholder value. After through literature review it was found that EVA, DPS, ROE, EPS is widely used for the performance measure of shareholder value so in order to empirically find the best performance measure of shareholder value of Indian commercial banks, EVA, DPS, ROE, EPS were selected as the independent variable.

<b>Fable: 2 Correlation Matrix of Bank</b>	performance measure with Market valued added:
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Banks	EVA	ROE	EPS	DPS
Public Limited Banks	0.3027	0.0231	0.2539	0.2089
Indian overall Banks	0.2519	0.0087	0.218	0.1864
Private Limited Banks	0.0197	-0.0042	0.0978	0.178



Figure: 2 Correlation Matrix of Indian commercial Bank performance measures with MVA

Proceedings of IRF International Conference, 5th January 2017, Bangkok, Thailand. ISBN: 978-93-86291-83-7

From the above results it can be interpret that EVA has highest correlation with MVA of 0.30 and 0.25 in case of public sector banks and overall banks but has very low correlation in case of 0.02 private sector banks. DPS has highest correlation with MVA in case of private sector banks.

Private Limited Banks (16 banks for 15 years)	Public Limited Banks (24 banks for 15 years)	Indian Banks (40 banks for 15 years)
MVA = 123.454-0.561085 (EVA)	MVA = -15.654+ 2.44688 (EVA)	MVA = 41.2646 + 2.12502 (EVA)
MVA = 195.326- 5.3592 (ROE)	MVA = 32.1111-0.771107 (ROE)	MVA = 95.7963 - 1.31336 (ROE)
MVA = 76.931+ 9.40839 (DPS)	MVA = -46.0553+ 8.22475 (DPS)	MVA = 5.79247+ 8.31653 (DPS)
MVA = 99.7258+ 0.710648 (EPS)	MVA = -68.9961+1.72434 (EPS)	MVA = -6.56276 + 1.66483 (EPS)

#### Table: 3 Regression equation of the study

# Table: 4 Impact of Bank Internal Performance Measure

Particulars	Private Sector Banks (16 banks for 15 years)	Public Sector Banks (24 banks for 15 years)	Indian Banks (40 banks for 15 years)	
Dependent Variable	MVA	MVA	MVA	
Correlation Matrix				
EVA	0.02	0.30	0.25	
ROE	0.00	0.02	0.01	
EPS	0.10	0.25	0.22	
DPS	0.18	0.21	0.19	
coefficient		0.0000	2	
EVA	-0.56	2.45	2.13	
ROE	-5.36	0.77	-1.31	
EPS	0.71	172	1.66	
DPS	0.71	8.22	0.22	
DFS	5.41	0.22	8.32	
std. error	0.52	0.51	0.00	
EVA	0.52	0.51	0.38	
ROE	1.78	3.79	2.43	
EPS	0.49	0.34	0.26	
DPS	2.71	2.23	1.71	
t-ratio				
EVA	-1.07	4.80	5.54	
ROE	-3.01	0.20	-0.54	
EPS	1.45	5.04	6.33	
DPS	3.47	3.70	4.86	
P-ratio				
EVA	0.29	0.00	0.00	
ROF	0.00	0.84	0.59	
EPS	0.15	0.00	0.00	
DPS	0.00	0.00	0.00	
R squared				
EVA	0.51	0.17	0.21	
ROE	0.53	0.10	0.16	
EPS	0.51	0.17	0.22	
DPS	0.53	0.14	0.20	
Adjusted R squared				
EVA	0.47	0.10	0.15	
ROE	0.49	0.03	0.10	
EPS	0 47	0 1 1	0 16	
DPS	0.49	0.07	0.13	
F value(F)				
EVA	0.00	0.00	0.00	
ROE	0.00	0.13	0.00	
EFS	0.00	0.00	0.00	
Dr.5	0.00	0.01	0.00	
Durom-watson	0.57	0.85	0.92	
EVA	0.57	0.83	0.85	
FPS	0.05	0.73	0.72	
DDC	0.70	0.01	0.00	

Proceedings of IRF International Conference, 5th January 2017, Bangkok, Thailand. ISBN: 978-93-86291-83-7

In panel regression study of Impact of Bank Internal Performance Measure (EVA, ROE, EPS and DPS) on MVA, it was found that all models applied in all the cases were found except for ROE in case of public sector banks was not found significant model.

In case of private sector banks EVA has negative significant coefficient relation whereas in Public and overall it has positive significant relation with MVA. Most of Traditional measures also significant coefficient relation except in case of ROE of public banks, ROE of overall banks and EPS of private banks.

In case of private Sector Bank, regression models of ROE and DPS had highest R squared of 53% each and Adjusted R Squared of 49% as compared to other bank performance measure. In case of Public Sector Bank, regression models of EVA and EPS had highest R squared of 17% each and Adjusted R Squared of 10% and 11% as compared to other bank performance measure. In case of overall banks, regression models of EVA and EPS had highest R squared of 21% and 22%, Adjusted R Squared of 15% and 16% as compared to other bank performance measure. As per the study in case of public Sector Bank and overall banks it was found that EVA and EPS describe the highest variation in MVA as compared to the other measure, but in case of private limited ROE and DPS describe the highest variation in MVA.

The value of Durbin Watson of all the model in all the cases showed that there is very minimum autocorrelation in residuals. All the models in all above case is found good fit as p value (F) is 0.000 which indicates the variation in dependent variable is explained by independent variables except So by above analysis, we interpret that Modern measure that is EVA has less impact factor on MVA as compared to traditional measures such as ROE and DPS in case of private Sector Bank. In case of Public and Overall banks EVA has higher impact factor on MVA but one of the traditional measure EPS also have higher impact factor on MVA, other two traditional have very less impact factor in measuring MVA.

So from overall study it can interpreted that modern measure EVA and traditional measure EPS is useful measure for predicting shareholder value creation of Banks.

## Figure: 3 Distribution of EVA by group

#### Figure: 4

Graph showing Bank Internal Performance Measure (EVA, ROE, EPS and DPS and Bank External Performance Measure (MVA) : Private Sector Banks

Public Sector Banks

Overall Banks

From the above Graphs of Private, Public and overall banks it can be seen that variation of MVA, EVA and

EPS is similar in case of Public and overall banks but in case of private Sector Bank variation of ROE and MVA is similar.

By this study it can be interpreted that EVA can be an important tool that bankers can use to measure and improve the financial performance of their bank. Since EVA takes the interest of the bank's shareholders into consideration, the use of EVA by bank mmanagement may lead to different decisions than if management relied solely on other measures.

#### CONCLUSIONS AND RECOMMENDATIONS

Thus in conclusion, when comparing the economic measure (EVA) and traditional measures (EPS, ROE, DPS) utilized in this study to investigate their influence on MVA, economic measure is more accurate to create shareholders value. In case of Public limited banks and overall Indian Banks more the managers produce EVA, the more shareholders' wealth maximization will be created but in case of private banks more the DPS better is shareholder holder value created. The finding shows significant support for EVA and DPS, butmajorly EVA should be preferred as it impact larger portion of the sample. Thus it is recommended for the Indian banks to focus more attention to the criteria of EVA in evaluating shareholder's value. The findingalso showed that EPS for public limited banksand DPS for private limited banks as a traditional measure is still enables to measure shareholder's value creation. Thus it is highly recommended to perform a comparative investigation between EVA, DPSand EPS towards created shareholder's value in case of Indian banks.

This research has been investigated in the selected listed private and public limited banks in India .Further research can be tested separately in different financial and non-financial industries and sector and in different country in order to make this issue practical and validate the result depicted from this study.

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