

## **DU-PONT ANALYSIS OF SELECTED PRIVATE SECTOR BANKS IN INDIA- A COMPARATIVE FINANCIAL STUDY**

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### **Abstract**

Financial analysis of any concern includes many financial ratios, techniques and various models. Different analyst uses different model to evaluate financial performance of different organization. Du-Pont analysis is one model among the different financial measuring tools. As the ROE (Return on Equity) plays an important role in financial analysis to evaluate management efficiency of and financial productivity of an organization, Proper calculation is a prime concern. Du-Pont analysis is that model which measures the ROE of an organization. In this paper financial performance of selected private sector banks has been studied through Du-Pont model to measure the efficiency of the bank's relating to their profit margin and management effectiveness. Bank's annual report for the financial years 2017 to 2019 has been taken for the data collection and financial comparison is made by going through peer comparison process.

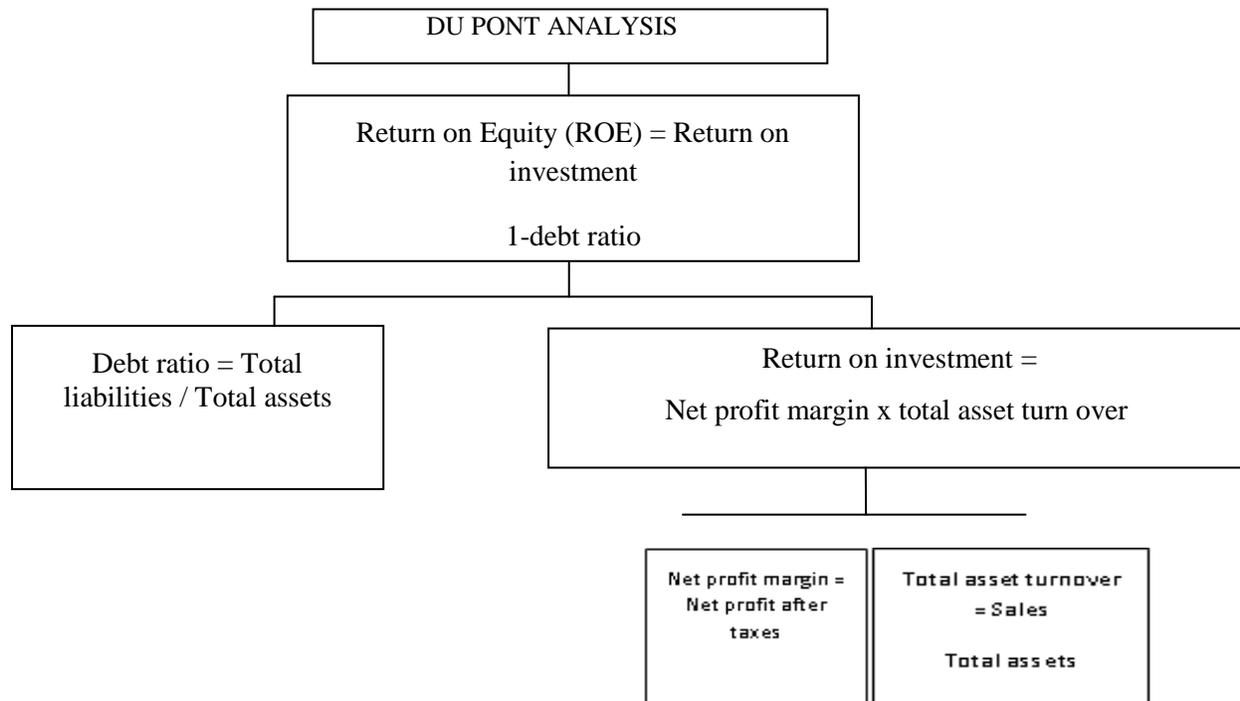
**Key Words:** financial, profit, equity, efficiency, Du-Pont, data.

### **1. Introduction**

Return on Equity or ROE commonly used by the investors, plays an important role in measuring the management competence in utilizing the financial resources, productivity and profitability. But mere consideration of traditional formula doesn't provide the pure picture of the firm. The main motive of the entire firm's is to generate more return by proper utilization of assets but competition restricting them to do so. But Du-Pont formula supports to recognize the limitations that firms face. For taking an example when the firm increases the debt no doubt Return on Equity also increased but at the same time it affects the liquidity position and financial capability of the firm leads to bankruptcy. Meanwhile DuPont Corporation brought this new model to examine the drivers of ROE (Return on Equity) by analyzing it and today it is widely known as DuPont Model.

## **2. Review of Literature**

M. Achim (2009, p.13) Basically, the resolution of the Du-Pont analysis is specified by the craving of management and financial analysis departments to break down so as to perceive ROE in rate of return aspects that each in itself enables a new understanding of the equivalent economic portent. Georgeta Vintilăet. Al. (2012) put forward new models of calculation for the study of profitability using the Du-Pont system to molder profitability into several factors of influence. The authors intend ROE alienation on rate parameters that encounter the desires of managers. Moss Charles B. (2009, p. 9) inspects the applicability of the DuPont model to study the performance of Agriculture and states that the Total Assets Turnover is less important than the Profit Margin in terms of influence on ROE. The results obtained through the model confirm the company policies working in agriculture. Christina Sheela and K. Karthikeyan (2012, p. 91), in the work Financial Performance of Pharmaceutical Industry in India using DuPont Analysis, examine profitability by the DuPont model on three of the largest pharmaceutical companies in India. The authors stress that absolute measurements are not always relevant, and to compare several companies, it is necessary to have a common basis in the calculation of the rates of return.



## **3. Objective of the study**

1. To know the financial performance of selected private sector bank using DuPont model.
2. To make a comparison of their performance by peer comparison process.

3. To know each bank's profitability, Return on Equity and deriving their efficiency.

#### **4. Research Methodology**

This paper includes four private sector banks named AXIS bank, HDFC bank and ICICI bank. Financial data has been collected from the annual report of each bank. The period of study is from 2017 to 2019. In this paper effort is made to calculate ROE of selected banks by applying three steps DuPont model to quantify the efficacy of the banks in relation to profit margin and management efficiency.

#### **5. Du-Pont Model- An overview**

The DuPont model was created by DuPont Corporation in 1920s. Today there are two variants of DuPont model is used they are three step model and extended five step model. Different ratios are used to measure different aspects of the business in terms of performance, liquidity, riskiness and profitability. Of these possible indicators, literature indicates that the most important measure of profitability and performance is the one which is calculated using DuPont analysis. Demmer (2015) notes that changes in profit margin provide incremental information for predicting changes in future return on assets, and Soliman (2008) cites DuPont components as yielding important information about the operating characteristics of a firm. The DuPont model shifted the focus from ROA to ROE, incorporating debt or "leverage" as a third area of attention. This modification made the DuPont model a powerful tool for strategic decision making within an organization to increase ROE (Collier, McGowan and Muhammad, 2006).

DuPont Mode (Return on Equity) = Net Profit margin \*Asset turnover ratio\* Equity Multiplier, DuPont model is an instrument to interpret financial statement by putting focus on Return on Equity. Hence Return on Equity (ROE) is the best measure to point out the rate at which owner capital is growing.

#### **6. Data Analysis and Interpretation**

**Table – 1**

**Du-Pont Analysis of Axis Bank**

FINANCIAL DATA	2018-2019(000')	2017-2018(000')
TOTAL SALE	68,116.11	56747.40
NET INCOME	4676.61	275.68
TOTAL ASSET	800996.53	691329.58
TOTAL EQUITY	66676.30	63,445.26
<b>DU-PONT ANALYSIS</b>		
NET PROFIT MARGIN	68.656445	48.580199
ASSET TURNOVER	0.085039	0.082084

EQUITY MULTIPLIER	12.01321	10.89647
CALCULATION OF ROE		
RETURN ON EQUITY	70.1388313	43.4513854

From the above table we can find out that in 2017-18, ROE was 43.35 percent. In the year 2018-19 ROE was increased from 43.45 to 70.13 percent. This reflects a good productivity status of AXIS bank and existence of management competency.

**Table – 2**

Du-Pont Analysis of HDFC bank

FINANCIAL DATA	2018-2019(000')	2017-2018(000')
TOTAL SALE	116,597.94	95,461.66
NET INCOME	21,078.17	17,486.73
TOTAL ASSET	12,44,540.69	1244540.71
TOTAL EQUITY	149209.35	149206.32
DU-PONT ANALYSIS		
NET PROFIT MARGIN	18.077652	18.318066
ASSET TURNOVER	0.0936875	0.0767043
EQUITY MULTIPLYER	8.3410705	8.3410723
CALCULATION OF ROE		
RETURN ON EQUITY	14.1268542	11.7198274

From the above table we can find out that in 2017-18, ROE was 11.71 percent. In the year 2018-19 ROE was increased from 11.71 to 14.12 percent. No doubt the ROE of HDFC bank is on rising note but compared to AXIS bank it is very low in value.

**Table – 3**

Du-Pont Analysis of ICICI bank

FINANCIAL DATA	2018-2019(000')	2017-2018(000')
TOTAL SALE	77913.36	77385.52
NET INCOME	3363.30	6777.42
TOTAL ASSET	961414.63	876185.97
TOTAL EQUITY	108368.04	103668.05
DU-PONT ANALYSIS		
NET PROFIT MARGIN	43.167179	87.580063
ASSET TURNOVER	0.0810403	0.0883208
EQUITY MULTIPLYER	8.8717543	8.4763712
CALCULATION OF ROE		
RETURN ON EQUITY	31.035890	65.5659283

From the above table we can find out that in 2017-18, ROE was 65.56 percent. In the year 2018-19 ROE was decreased from 65.56 to 31.03 percent. The ROE of ICICI bank was higher than HDFC bank in both 2017-18 and 2018-19 years but in comparison with axis bank, it was higher only in 2017-18. In 2018-19 it was lower than AXIS bank.

**Table – 4**

Average ROE

BANKS	ROE (2018-2019)	ROE(2017-2018)
AXIS BANK	70.1388313	43.4513854
HDFC BANK	14.1268542	11.7198274
ICICI BANK	31.035890	65.5659283
AVERAGE ROE	38.433858	40.2457137

From the above analysis it is found that AXIS banks Return on Equity or ROE was higher than HDFC and ICICI n 2018-19 year. Also from the comparison it is clear that AXIS banks ROE is much higher than the average ROE 38.433858, whereas both HDFC AND ICICI banks ROE is lower than the Average ROE. Among the three banks AXIS banks performance was good, ICICI bank comes second and HDFC bank comes in the last position. As the performance of AXIS bank's is high for investment purpose we may consider this organization. ICICI banks performance was also good in 2017-2018 where it stood more than the all three banks average ROE plus each individual banks ROE. So ICICI banks performance was also best in the year 2017-2018. But HDFC banks performance considering the efficiency to translate equity into revenues or profit is low.

**7. Conclusion**

This paper includes the analysis of financial performance of three major private banks in India using Du-Pont model in order to know the ROE pattern of each bank. Different analyst and researcher considered different financial tools to measure financial performance and this lead to different outcome of results. As the various model reflect various results in this study the authors view and findings may be different than others findings. Du-Pont model is used to measure the ROE of selected private sector banks and findings revealed that in the year 2018-19 the performance of AXIS bank is best and in the year 2017-18 ICICI bank's performance is best. As this study includes one limitation of short term analysis and financial comparison, further study must be initiated to measure long term ROE evaluation of these three banks to find out the viable results. Even the study is concurrent and accurate, it is not suggested to rely only in this finding and investors must consider other various factors while making investment decision.

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