

DECODING THE RETURN ON EQUITY (ROE) OF CONSISTENT WEALTH CREATORS A STUDY ON SELECT LISTED COMPANIES IN INDIA

Dr. M S Devi

Assistant Professor Department of Commerce
Shiv Nadar University Chennai
devims@snuchennai.edu.in

Dr. Azhaguraja N

Assistant Professor Department of Commerce
Shiv Nadar University Chennai
azhagurajan@snuchennai.edu.in

Dr. Ashok R

Assistant Professor Department of Commerce
Shiv Nadar University Chennai
ashokr@snuchennai.edu.in

ABSTRACT

In this globalized era of competitive financial markets, winning over the confidence of investors and retaining existing shareholders is a difficult task for any company. To sustain itself in this competitive market the company must strive for value creation. Shareholder wealth depends on the intrinsic value of companies (Rappaport, 1998). Among the various financial performance metrics of the companies, Return on Equity (ROE) is a closely-watched measure among the different stakeholders of the companies. The study uses Return on Equity (ROE) as a measure of intrinsic value to decode ROE into its value drivers and identifies the value drivers that contribute significantly to enhancing ROE. Adopting secondary data methodology, the top 100 companies of the Bombay Stock Exchange in terms of their market capitalization consistently for a period of eight years ranging from 2015 to 2022 are identified as consistent wealth creators. Using the SPSS software, panel data regression with a fixed effect model, the impact of the value drivers on the ROE is quantified. The study concludes with the important value drivers contributing significantly to value creation by wealth creators.

Keywords: Investors, Return on Equity, ROE, Value drivers, shareholders wealth creators.

Introduction

The prime goal of a company form of organization is to maximize shareholder wealth. The shareholder wealth is maximized only when the market value of the share is maximized. For listed companies, wealth creation refers to changes in the wealth of shareholders on a periodic basis. It is inferred mostly from changes in stock prices, dividends paid, and equity raised during the period. (Bhasin, M. L.,2013) While wealth creation is a long-term orientation, management concentrates on short-term earnings. The reason is short-term earnings fuel stocks' prices and the average holding period for stocks is less than one year. (Rappaport,2006) says the undue focus on the near-term goals of investors does not matter.

For most companies, Stock prices justify the expected cash flows of more than ten years. Hence, the Market's long-term view of the valuation horizon is more significant than the short-term view of investors. It is the utmost responsibility of the management to create such a valuation that can maximize wealth.

The market price of Share servers is an index of the performance of the company. Shareholder wealth depends on the intrinsic value of companies (Rappaport,1998). Among the various financial performance metrics of the companies, Return on Equity (ROE) closely reflects its intrinsic value. (Black 2000) reported that even though some Japanese companies have realized the shortcomings of using Return on equity (ROE) to measure shareholder wealth, most still believe in the use of ROE. Their opinion is that their Shareholder Value added (SVA) measure and ROE are not contradictory but fairly complementary. It is a closely watched measure among the different stakeholders of the companies. Hence to create wealth management must have a deeper understanding of internal variables that drive the intrinsic value (ROE) of the business. It is through these value drivers that the corporate objective of maximization of wealth is realized. Hence the study analyzes some value drivers consistent with wealth creation. This may help companies to focus on a few significant ones.

The rest of the research paper is organized as follows: In section II studies related to return on Equity and Value drivers are discussed. The Objectives, methodology, data, and sample of the study are explained in section III, IV & Section V deals with the empirical result of the study. The conclusion and the scope for future work are covered in the last section numbered VI.

Literature Review

There are numerous financial performance measures to weigh the performance of a company like Return on Equity, Return on Investment, Return on Assets, and Debt Equity Ratio, etc.,

Among these performance indices Return on Equity and Return on Asset are considered benchmark measures (Rappaport, 1986), (Black, Wright, and Davies, 2001), (Wet, 2004), (Monteiro, 2006) disclosed that Shareholder value is the difference between equity returns and the cost of equity. Authors like (Stowe (2002), (Correia 2003), (Firer ,2004) revealed that the ROE and ROA are the two main components of DuPont analysis which are most widely used by financial analysts, managers, and investors.

(Chari, and Mohanty, 2007) analyzed the Value Drivers of Return on Equity. The study considered the financial data of 112 Indian companies listed on the Bombay Stock Exchange for a period of seven years (2000-2006). They have applied the Dupont model to derive the significant internal and external value drivers. The paper concluded by stating the vital value drivers are sustainable in the long run and contributing significantly to value creation.

(Manjunatha & Praveen, 2018) Information Technology companies can generate positive Returns on equity (ROE) and create value (wealth Maximization) for their shareholders. The DuPont analysis of the ROE of software consulting, software products, networking equipment, and training services companies shows that profit margin and asset turnover reflect positively on the ROE.

(Kar, Bansal & Mishra, 2016) analyzed the various financial parameters of the Bharath Petroleum Corporation Ltd (BP), Hindustan Petroleum Corporation Ltd, Indian Oil Corporation, Cairn India, British Petroleum PLC, Royal Dutch Shell PLS (RDS). They have found that BP had a maximum Return on Equity for the period from 2010 to 2014. Most of the Indian oil companies' Return on Assets is lesser across the board compared to BP and RDS which means that Indian companies were not that good at converting investment into profit. DuPont Model also disclosed that Indian companies were good in earning profits whereas BP and RDS were extra liquid and stable in comparison to others.

(Jani,2022) has evaluated applying the DuPont model using three-factor testing of Equity Multiplier, Assets Turnover, and Return on Equity. It was found that ROE improved continuously due to the equity multiplier. The equity multiplier has been influenced by other factors such as the Operating Profit ratio, Capital Turnover Ratio, Financial cost Ratio, Financial Structure ratio, and Tax effective ratio. Among all the three factors of the DuPont model, Equity Multiplier has a significant impact on ROE, which showed an upward trend from 2.44 to 4.66 resulting in positive ROE.

Authors like (Finegan, 1991), (Stern, 1993), (Dodd and Chen, 1996), and (Kramer and Pushner, 1997) studied the relationship among the internal value drivers and their association with shareholder value. Whereas (Copeland, 2002), (Stewart III, 2003), and (De Wet, 2007) found little or no correlation between internal value drivers and economic value added (EVA).

These reviews bring to light the immense need to understand the impact of internal value drivers on companies' ROE. Hence the following research question is being framed "Which internal value driver impacts the most on consistent wealth creators' ROE?" To address this question, the following methodology is adopted.

Objectives of the study

The twin objectives of the study are given below

1. To find out the extent of the relationship between Return on Equity and its three value drivers by applying DuPont analysis The three value drivers considered for the study are Net profit margin, Asset utilization & Financial Leverage.
2. To find out the value drivers that have contributed significantly to the value-creation process of the listed companies in India that created wealth consistently.

Methodology

To study the strength of the relationship of Return on Equity with its three value drivers the method of multiple Regression with a fixed effect model (Panel data fixed effect model) has been run using SPSS software. Bombay Stock Exchange Ltd, BSE,(2023) publishes a list of top hundred companies in terms of Market capitalization for every financial year. A list of companies that have consistently found their place in the list of top 100 companies spanning a period of eight years ranging from 01/04/2014 to 31/03/2022 has been extracted. Only non- financial companies were included in the study. There were forty-two (42) companies found in all eight years of data and

identified as consistent wealth creators. The Financial data of forty-two companies for the eight financial years got extracted from the database, Capitaline for the study. (Capitaline, 2023)

DuPont Analysis is the frame of reference for the investigation. The DuPont system is derived from two equations that link the firm's return on assets (ROA) and return on equity (ROE).

The system identifies three areas where the management should focus its efforts to maximize the firm's ROE: Profit on sales, utilization of the firm's assets, and financial leverage.

Each of these areas is monitored by a single ratio and together the ratios compose the DuPont equation (Parrino, Kidwell, D P107) the three key DuPont ratios are linked together, and they relate to the Balance Sheet and the Income statement of a firm.

It summarizes the emergence of ROE from its value drivers – Net Profit Margin (NPM), Asset Turnover (ATO), and Equity Multiplier (EMP). It also visualizes the emergence of NPM, ATO, and EMP from the basic financial variables of the companies such as sales, cost of goods, operating expenses, Interest, and Taxes (components of the statement of Income) on the one hand and Current Assets, Net fixed Assets, Current liabilities, and Long-term debt (Components of the Balance sheet) on the other. ROE (a key indicator of shareholder value) emerges from the analysis of Income Statement and Balance Sheet in Phase I and the analysis of EMP, ATO, and NPM in Phase II.

The following steps have been taken while assessing the effect of three value drivers on ROE. Considering ROE as a dependent variable and the other three value drivers namely NPM, ATO, and EMP as independent variables, company-wise analysis has been performed the results are presented in table 1. For this purpose panel data of 42 companies' value drivers spanning a period of 8 years are considered. Adopting multiple regressions with fixed effect model dummy variables for the companies created first and then model generated. The further individual effect of each value driver on ROE is also considered and performed.

Data Analysis

The initial multiple regression models of ROE to NPM, ATO, and EMP indicates that the F value of 52.799 at a one percent confidence level was found significant and the (R²) value of 89 percent, implying that the value drivers are significantly explained by ROE. Company-wise regression analysis with a fixed effect model is presented in the following table (Table 1). The overall results indicate that only 25 out of 42 companies' ROEs are influenced by the three value drivers. That is each of the value drivers significantly (1%, 5%, and 10%) contributes to the growth of ROE. When it comes to individual driver's influence on ROE the following observations are made, (i) NPM: 28 companies found significant influence on the company's ROE, whereas (ii) ATO: 24 companies significantly contribute to the company's ROE and (iii) EMP: 26 companies ROE depend on the EMP. It is very much advertised that among the three value drivers, Net Profit Margin is considered the most prominent value driver followed by Equity Multiplier and Asset Turnover.

Company Name	Estimated Coefficient (β)				T ratio				Significance			
	VD1	VD2	VD3	C	VD1	VD2	VD3	C	VD1	VD2	VD3	C
Adani Ports	-0.06	0.01	0.03	0.05	-1.68	0.33	0.59	1.39	0.09***	0.74	0.55	0.17
Asian Paints	0.08	-0.02	0.07	-0.03	2.09	-0.65	1.72	-0.78	0.04**	0.52	0.09***	0.43
B P C L	0.03	-0.26	0.08	-0.23	0.82	-5.79	1.89	-5.12	0.42	0.00*	0.06***	0.00*
Bajaj Auto	0.04	-0.01	0.03	-0.01	1.13	-0.22	0.76	-0.40	0.26	0.83	0.45	0.69
Bharti Airtel	-0.19	-0.14	-0.13	-0.11	-5.02	-3.90	-3.10	-3.12	0.00*	0.00*	0.00*	0.00*
Britannia Inds.	0.21	-0.01	0.21	-0.01	5.78	-0.35	5.47	-0.24	0.00*	0.73	0.00*	0.81
Cipla	-0.08	-0.07	-0.09	-0.07	-2.25	-1.97	-2.37	-2.32	0.03**	0.05**	0.02**	0.02**
Coal India	0.38	0.65	0.58	0.47	8.11	18.51	14.90	11.47	0.00*	0.00*	0.00*	0.00*
Dabur India	0.09	0.04	0.09	0.04	2.55	1.15	2.22	1.17	0.01*	0.25	0.03**	0.24
DLF	-0.16	-0.09	-0.14	-0.08	-4.31	-2.44	-3.54	-2.42	0.00*	0.02**	0.00*	0.02**
Dr. Reddys Lab	-0.08	-0.06	-0.08	-0.06	-2.20	-1.81	-2.08	-1.98	0.03**	0.07***	0.04**	0.05**
GAIL (India)	-0.08	-0.11	-0.08	-0.11	-2.20	-3.24	-1.97	-3.42	0.03**	0.00*	0.05**	0.00*
Godrej Consumer	0.03	0.01	0.02	0.01	0.77	0.39	0.47	0.27	0.44	0.70	0.64	0.79
Grasim Inds	-0.15	-0.11	-0.16	-0.11	-4.03	-3.11	-3.99	-3.52	0.00*	0.00*	0.00*	0.00*

HCL Technologies	0.07	0.08	0.06	0.08	1.99	2.46	1.64	2.47	0.05**	0.01*	0.10***	0.01*
Hind. Unilever	0.48	0.23	0.48	0.23	13.00	5.22	12.41	5.89	0.00*	0.00*	0.00*	0.00*
Hindalco Inds.	-0.17	-0.14	-0.14	-0.13	-4.63	-4.12	-3.55	-3.92	0.00*	0.00*	0.00*	0.00*
Hindustan Zinc	0.03	0.07	0.02	0.06	0.69	1.90	0.54	1.90	0.49	0.06***	0.59	0.06***
I O C L	-0.04	-0.18	0.01	-0.14	-1.16	-4.82	0.31	-3.84	0.25	0.00*	0.76	0.00*
Infosys	0.05	0.03	0.04	0.03	1.30	1.00	0.93	0.90	0.19	0.32	0.35	0.37
ITC	0.05	0.05	0.03	0.04	1.27	1.49	0.89	1.39	0.21	0.14	0.38	0.16
JSW Steel	-0.02	-0.02	0.07	0.03	-0.60	-0.45	1.45	0.85	0.55	0.65	0.15	0.39
Larsen & Toubro	-0.07	-0.09	-0.06	-0.08	-1.86	-2.63	-1.46	-2.63	0.06***	0.01*	0.14	0.01*
M & M	-0.07	-0.11	-0.07	-0.11	-1.96	-3.28	-1.85	-3.53	0.05**	0.00*	0.07***	0.00*
Marico	0.11	0.03	0.10	0.03	2.93	0.87	2.60	0.91	0.00*	0.39	0.01*	0.37
Maruti Suzuki	-0.08	-0.16	-0.09	-0.16	-2.15	-4.41	-2.31	-4.92	0.03**	0.00*	0.02**	0.00*
NTPC	-0.09	-0.04	0.00	0.01	-2.30	-1.02	-0.01	0.20	0.02**	0.31	0.99	0.84
ONGC	-0.09	-0.04	-0.09	-0.04	-2.46	-1.23	-2.26	-1.35	0.01*	0.22	0.02**	0.18
Pidilite Inds.	0.05	-0.01	0.03	-0.01	1.24	-0.22	0.86	-0.39	0.22	0.83	0.39	0.69
Power Grid Corpn	-0.04	0.03	0.14	0.12	-1.13	0.81	1.98	2.13	0.26	0.42	0.05**	0.03**
Reliance Industries	-0.11	-0.08	-0.08	-0.07	-2.84	-2.36	-2.10	-2.18	0.00*	0.02**	0.04**	0.03**
Shree Cement	-0.05	-0.04	-0.04	-0.03	-1.28	-1.05	-0.93	-0.97	0.20	0.29	0.35	0.33
Sun Pharma.Inds.	-0.19	-0.14	-0.18	-0.14	-5.24	-4.12	-4.65	-4.29	0.00*	0.00*	0.00*	0.00*
Tata Motors	-0.30	-0.32	-0.23	-0.27	-8.13	-9.19	-4.95	-7.40	0.00*	0.00*	0.00*	0.00*
Tata Steel	-0.07	-0.04	-0.04	-0.02	-1.95	-1.19	-1.01	-0.76	0.05**	0.24	0.32	0.45
TCS	0.20	0.15	0.19	0.14	5.46	4.28	4.94	4.56	0.00*	0.00*	0.00*	0.00*
Tech Mahindra	0.01	-0.02	0.00	-0.02	0.19	-0.68	0.07	-0.78	0.85	0.50	0.94	0.44
Titan Company	0.02	-0.11	0.04	-0.10	0.58	-3.08	0.94	-2.96	0.56	0.00*	0.35	0.00*
UltraTech Cem.	-0.09	-0.07	-0.07	-0.06	-2.32	-2.15	-1.65	-1.97	0.02**	0.03**	0.10***	0.05**
United Spirits	-0.14	-0.18	-0.13	-0.17	-3.67	-5.16	-3.30	-5.45	0.00*	0.00*	0.00*	0.00*
Vedanta	-0.12	-0.07	-0.09	-0.05	-3.33	-2.09	-2.11	-1.64	0.00*	0.04**	0.04**	0.10***

Table 1: Descriptive statistics for regression analysis with three value drivers

* 1% significant level; ** 5% significant level; ***10% significant level VD1 NPM; VD2 ATO;VD3 EMP; C; Overall Model

Conclusion

Performance evaluation of any company is considered to be an important element when deciding about investment valuation and company valuation. Through performance evaluation of a company, one can easily derive shareholder value. This paper tried to assess the strength of the relationship between Return on Equity with three value drivers and further analyzed the effect of these value drivers on the ROE of the listed companies in India that created wealth consistently. The internal value drivers such as NPM, ATO, and EMP are statistically validated with the help of the financial data of sample companies. It is found that the NPM, EMP, and ATO significantly contribute to the growth of the Return on Equity of 28 companies, 26 companies, and 24 companies respectively. It is very much advertised that among the three value drivers, Net Profit Margin is considered the most prominent value driver followed by Equity Multiplier and Asset Turnover.

As the study identified only the internal value drivers at the macro level, there is a scope for a detailed study of analyzing operational-level value drivers. Industry-specific value drivers are also not studied in this investigation. The impact of financial value drivers is only considered.

The study concludes by stating that the company's Return on Equity can be improved with the proper management of these three value drivers. In other words, by improving the internal value drivers of the company, ROE can be significantly enhanced. The value driver, Net profit margin derived the intrinsic value of the companies that were identified as consistent wealth creators.

The research can be extended by including Cash profits earned by the company in the place of Profit after Tax in the study, the reason is that Cash profits will reflect the health of the company's earnings. Fernandez, P. (2006) says Cash flow is cash and is a fact; Net income is just a number. PAT or Net income is subject to certain accounting hypotheses. Including industry-specific value drivers and non-financial value, drivers will enhance the value addition.

References

- Applied Corporate Finance*, 15(3):63-82.
- Bhasin, M. L. (2013). Economic value added and shareholders' wealth creation: Evidence from a developing country. *International Journal of Finance and Accounting*, 2(4), 185- 198.
- Black, A. & others. (2000), In search of shareholder value: Managing the drivers of Performance, December 2000, *Financial Times/Prentice Hall, London*.
- Black, A., Wright, P. & Davies, J. 2001. In search of shareholder value. 2nd Edition. London: Pearson.
- BSE (2023) List of top 100 companies in terms of Market Capitalization. Retrieved on 4th January 2023, from BSE: <https://www.bseindia.com/markets/equity/eqreports/topmarketcapitalization.aspx>
- BSE (2023) List of top 100 companies in terms of Market Capitalization. Capitaline (2023). Dupont ratios. Capitaline (2023). Dupont ratios, Retrieved on 4th January 2023 from Capitaline: <https://www.capitaline.com/>
- Chari, L.S, and Mohanty, R.P (2007) 'Value drivers of return on equity: a study of Indian Companies' *Int. J. Accounting, Auditing and Performance Evaluation*, Vol. 4, No. 6, pp.633-649.
- Copeland, T. 2002. 'Want to create value?', *Strategic Finance*. 83(9): 48-54
- Correia, C., Flynn, D., Uliana, E. & Wormald, M. 2003. Financial management. 5th Edition. Cape Town: Juta.
- De Wet, J. H. V. H., & Du Toit, E. (2007). Return on equity: A popular, but flawed measure of corporate financial performance. *South African Journal of Business Management*, 38(1), 59-69.
- De Wet, J.H.vH. 2004. 'A strategic approach in managing shareholders' wealth for companies listed on the *JSE securities exchange South Africa*'. Doctoral thesis, University of Pretoria, Pretoria.
- Dhruti G Jani (2022), A detailed study of Financial Performance of Coal India Limited Post Disinvestment Using Dupont Analysis, *Gap interdisciplinarity – Volume - V Issue I January – March 2022*, pp 37 -45.
- Dodd, J.L. & Chen, S. 1996. 'EVA: A new panacea?', *B & E Review*, July – September: 26–28.
- Fernández, P. (2006). Cash Flow is cash and is a fact: Net income is just an opinion. *IESE Business School– University of Navarra Working Paper no*, 629.
- Finegan, P.T. 1991. 'Maximising shareholder value at the private company', *Journal of Applied Corporate Finance*, 4(1):30-45.
- Firer, C., Ross, S.A., Westerfield, R.W. & Jordan, B.D. 2004. *Fundamentals of corporate finance. 3rd South African edition. New York: McGraw-Hill.*
- investments: Valuation. Baltimore: AIMR.*
- Kar, S. K., Bansal, R., & Mishra, S. (2016). A Comparative Financial Performance Analysis: Study of Indian and Global Oil Companies. *Oil, Gas & Energy Law*, 14(4).
- Kramer, J.K. & Pushner, G. 1997. 'An empirical analysis of economic value added as a proxy for market value added', *Financial Practice and Education*, Spring/Summer: 41–49. Manjunatha & J.Praveen Gujjar (2018), "Performance Analysis of Indian Information Technology Companies Using DuPont Model", *The IUP Journal of Management Research*, Vol. XVII, No. 4, 2018.
- Monteiro, A. 2006. 'A quick guide to financial ratios'. The Citizen, Moneyweb Business Insert, 6 May:3.Parrino, R. & Kidwell, D. (2009). *Fundamentals of Corporate Finance*. New Delhi: Wiley India Pvt Ltd
- Rappaport, A. 1986. *Creating shareholder value*. New York: The Free Press. Rappaport, A (1998) *Creating Shareholder Value*, New York: Free Press, p.32. Rappaport, A. (2006). Ways to create shareholder value. *Harvard Business Review*, 84(9), 66-77.
- Stern, J. 1993. 'Value and people management', *Corporate Finance*, July:35–37. Stewart III, G.B. 2003. 'How to fix accounting – measure and report economic profit', *Journal of*
- Stowe, J.D., Robinson, T.R., Pinto, J.E. & McLeavy, D.W. 2002. *Analysis of equity*