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An Analytical Study On Selected Top 5 Market Cap Agrochemical Companies Of India

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ABSTRACT:

The present research paper is related to market performance of selected top 5 market cap agrochemical companies of India and its objective is to Determine and compares of market based performance of selected top 5 market cap agrochemical companies of India. The study is analytical in nature and the sampling method is purposive. The study was based on selected top 5 market cap companies for 10 years starting from 2011-12 to 2020-21. The selection criteria for selected top 5 market cap is based on companies total market capitalization as per source of capitaline market magazine on date 08 March, 2020. For measuring market performance the researchers have used market-based ratio techniques it including different ratios. It is that found Tobin q Ratio and Price Earnings Ratio have significant different Among selected top 5 market cap agrochemical companies where as looking other side Market to book value ratio, Dividend yield ratio and Stock return have insignificant means that there is no significant different among selected top 5 market cap agrochemical companies throughout the research period.

Keywords: Market Performance, Measure, Market Value, Agrochemical, Market Capitalization.

INTRODUCTION:

The company's performance is mostly measured by the two ways first one is the financial performance and second is Market based performance but there is seen stock markets investor's point of view it is being most important things to measure market performance of those industry sectors which gives major contribution to Indian economic growth, that's why here researcher took only Agrochemical sector because this sector gives 20.19% contribution in total GDP and it is also called backbone of Indian Agriculture sector. Today, the world has become smaller in the sense that businesses can be performed everywhere, the performance of companies are the first to be evaluated by investors throughout the world in today's current business scenario. The company's performance evaluation is the most essential factor for attracting Investors, for that the responsible person who is manage business in a manner so that he increase firm performance by implementing new plans, policy and procedures to upgrade the company's operations and transactions throughout its life cycle. The firm's performance have influenced by the business environment, which can be measured using accounting-based or market-based measurement. Company's performance measures are a collection of quantifiable measurements which was derived from a different of sources and combined with a proper analytical procedure, allows a company's management to track and assess the present state of a certain business project, or process. Companies performance was measured with compared to pre-determined goals and objectives.

REVIEW OF LITERATURE

(Yahya & Ghazali, 2016) investigated the effect of accounting and market based performance measures on CEO compensation along with the moderating role of dividend policy with the help of hierarchical multiple regression on a sample of 66 banks and companies listed in Karachi Stock Exchange resulting positive and significant impact of accounting based measures on CEO compensation but in case of Market base measures.

(Selvam, Gayathri, Vasanth, Lingaraja, & Marxiaoli, 2016) Studied the determinants of firm performance with the help of past studies in which a comprehensive subjective measurement model for performance of firms based on indicators and findings of earlier research studies. It is found that these nine dimensions or determinants cannot be used interchangeably since they represent different aspects of firm performance and different stakeholders of firms have different demands that need to be managed independent.

(Aldehayyat, Alsoboa, & Al-Kilani, 2017) Explored how the mechanisms of corporate governance (audit committee size, CEO duality, board size, female board members and board composition) affect the firm performance. No relationship was Recognize between the female board members' proportion, audit committee size and ROA. Conversely, the variables of corporate governance do not show a relation with measure of market performance, which supports the argument that market-based performance measures are

impartial when economic circumstances are normal in context of emerging markets. The paper provides insight into better understanding.

RESEARCH GAP

There are many research have been conducted on accounting based performance of different Industries like information technology, textile, petroleum, pharmaceutical, hospital, tourism etc., but the researcher has observed that only very few research conducted selected top 5 market cap agrochemical companies and only Accounting Performance has been Measured by researcher so, market based performance measurement and agrochemical industries are opened for further research, therefore researcher has took up this study.

OBJECTIVES OF THE STUDY

1. To Study Market Based Performance of Selected top 5 Market Cap Agrochemical Companies.
2. To Compares and Contrast of Market based Performance Measurement of Selected Top 5 Market Cap Agrochemical Companies.

RESEARCH METHODOLOGY

The present studies nature is a descriptive. The total populations of studies is all agrochemical companies which are registered under the BSE and NSE or both in India, total 17 agrochemical companies out of which only 5 top cap agrochemical companies selected for the present study and selection criteria for top 5 market cap company is based on companies total market capitalization as per source of Capitaline market Magazine as on date 08 March, 2020. Here researcher have used purposive sampling techniques for the company selection and collected data for the period is 10 years starting from 2011-12 to 2020 – 21. The said study based on secondary sources which are collected from published annual report of selected top 5 market cap agrochemical companies. The level of significance for the hypothesis testing is at 5%. For the purpose of data analysis part the researcher have applied one way ANOVA test for hypothesis testing and also applied descriptive statistics analysis tool like Standard Deviation, Standard Error and Mean by using SPSS. For measuring market performance the researcher have used Market based ratio techniques it includes different ratios like tobin q ratio, market to book value ratio, dividend yield ratio, price earnings ratio, annual stock return and for purpose of batter presentation the researcher have used graph and charts with help of Microsoft excel.

DATA ANALYSIS AND INTERPRETATION

Tobin's Q Ratio

Tobin's Q is widely used to measure the ratio of the market capitalization plus total debt divided by total asset of the company, it represent future long-term performance. it can be measured by following formula,

$$\text{Tobin's Q} = \frac{\text{Market Capitalization (+) Total Debt}}{\text{Total Asset}}$$

Tobin's Q Ratio	Indicates
Tobin's q = 1.0	solely the recorded assets of a company
Tobin's q < 1.0	Market value is greater than the value of the company's recorded assets.
Tobin's q > 1.0	company needs to revise its plans to enhance its short-term performance
Negative Value	Leads to investor's loss it is important for the company to update its objectives from time to time.

TABLE NO.:1

TOBIN Q RATIO OF THE SELECTED TOP 5 MARKET CAP AGROCHEMICAL COMPANIES

YEAR	ASTECC	BHARAT	DHANUKA	P I	RALLIS
2011-12	0.79	1.02	1.51	1.85	2.79
2012-13	0.80	0.97	1.81	1.63	2.50
2013-14	0.81	1.16	4.76	5.85	3.26
2014-15	1.33	1.80	1.74	9.96	4.08
2015-16	1.66	1.69	4.58	8.97	2.67
2016-17	4.08	3.72	5.66	5.40	3.38
2017-18	3.35	4.18	3.74	4.92	2.95
2018-19	2.76	2.68	2.51	4.59	1.83
2019-20	2.06	3.77	2.26	4.94	2.01
2020-21	3.52	4.73	3.28	5.06	2.30
MEAN	2.12	2.57	3.19	5.32	2.78

(Sources: Computed from Annual report of Selected Agrochemical companies)

Interpretation:

The above table shows that company wise Tobin q ratios of selected top 5 market cap agrochemical companies for the period 10 year starting from 2011 to 2021 during this period it is observed that the Aimco company has got 5.32 tobin q ratio which was highest, where as the Astec ltd. has got 2.12 tobin q ratio which was lowest in all selected top 5 market cap agrochemical companies.

Market-to-Book Value (MTBV) / Price-to-Book Ratio (P/B Ratio)

The market-to-book ratio, also called the price-to-book ratio. It indicates to evaluate whether a company's stock was over or undervalued by comparing the market price of all outstanding shares with the net assets of the company. It was calculated by the company's stock price per share dividing by its book value per share.

$$\text{Market-to-Book Value (MTBV)} = \frac{\text{Market Value Per Share}}{\text{Book Price Per Share}}$$

MTBV Ratio	Indicates
MTBV Ratio = 1	Indicates sound investments (Rational value)
MTBV Ratio < 1	Indicates stock may be undervalued (stock price is trading at a lower price relative to the value of the company's assets)
MTBV Ratio > 1	Indicates Overvalued, Stock price is trading at a premium to the company's book value.

TABLE NO.: 2**MARKET- TO -BOOK VALUE RATIO OF THE SELECTED TOP 5 MARKET CAP AGROCHEMICAL COMPANIES.**

YEAR	ASTEC	BHARAT	DHANUKA	PI	RALLIS
2011-12	-0.75	-0.75	-0.75	-0.75	-0.75
2012-13	0.29	0.85	2.27	0.67	3.61
2013-14	0.59	1.67	3.81	5.56	4.71
2014-15	2.10	3.19	2.25	9.42	5.52
2015-16	3.24	2.54	6.09	6.73	3.60
2016-17	8.53	6.25	7.50	7.16	4.51
2017-18	6.69	6.13	4.29	6.40	3.63
2018-19	5.20	4.35	2.91	6.26	2.50
2019-20	3.18	3.92	2.18	6.23	2.42
2020-21	6.35	5.49	4.04	6.48	3.09
MEAN	3.54	3.36	3.46	5.42	3.28

(Sources: Computed from Annual report of Selected Agrochemical companies)

Interpretation:

The above table revealed that company wise market to book value ratio of selected top 5 market cap agrochemical companies for the period of 10 years starting from 2011 to 2021 during the period it is observed that the PI ltd has got 5.32 which were highest, when the aim ltd. has got Rallis market to book value which was lowest in all selected top 5 market cap agrochemical companies.

Dividend Yield (DY)

Dividend yield is relative to the stock price, expressed in percentage that shows how much a company pays out in forms of dividends for each year relative to its stock price. The formula for dividend yield is as follows:

$$\text{Dividend Yield Ratio (DY)} = \frac{\text{Dividend Per Share}}{\text{Price Per Share}}$$

Dividend Rate in (%)	Indicates
Between 2% to 4%	Strong Dividend Yield
More than 4%	Risky one for Buy
0%	a company is facing adverse economic conditions or financial hardships

TABLE NO.:3
DIVIDEND YIELD RATIO IN (%) OF THE SELECTED TOP 5 MARKET CAP AGROCHEMICAL COMPANIES.

YEAR	ASTEC	BHARAT	DHANUKA	P I	RALLIS
2011-12	0.00	0.00	0.00	0.00	0.00
2012-13	4.44	2.40	2.34	3.84	2.00
2013-14	2.72	0.93	1.58	0.72	1.39
2014-15	0.85	0.29	0.66	0.41	1.10
2015-16	0.00	0.23	1.11	0.55	1.47
2016-17	0.25	0.08	0.08	0.48	0.96
2017-18	0.26	0.05	1.00	0.45	1.70
2018-19	0.28	0.05	0.15	0.39	1.51
2019-20	0.38	0.08	3.71	0.34	1.42
2020-21	0.15	0.02	0.29	0.22	0.99
MEAN	0.93	0.41	1.09	0.74	1.25

(Sources: Computed from Annual Report of Selected Agrochemical Companies)

Interpretation:

The above table revealed that company wise dividend yield ratio of selected top 5 market cap agrochemical companies for the period of 10 years starting from 2011 to 2021 during this period it is observed that the Rallis ltd has 1.25% which was highest, when Bharat ltd has lowest 0.41% dividend yield ratio among all selected top 5 market cap selected agrochemical companies.

Price-Earnings Ratio

(PE)The price-to-earnings ratio (P/E ratio) the ratio for valuing a company that measures its current share price relative to its earnings per share (EPS). The price-to-earnings (P/E) ratio is related to company's share price to its earnings per share/E Ratio Formula,

$$\text{P/E Ratio} = \frac{\text{Price Per Share}}{\text{Earnings Per Share}}$$

P/E Ratio	Indicates
High P/E	A stock's price is high relative to earnings. (overvalued)
Low P/E	A Current stock price is low relative to earnings.(Undervalued)

TABLE NO.:4
PRICE EARNINGS RATIO IN (%) OF THE SELECTED TOP 5 MARKET CAP
AGROCHEMICAL COMPANIES.

YEAR	ASTEC	BHARAT	DHANUKA	P I	RALLIS
2011-12	0.03	0.18	0.14	0.02	0.05
2012-13	0.06	0.18	0.11	0.03	0.05
2013-14	0.03	0.15	0.07	0.03	0.05
2014-15	0.03	0.09	0.12	0.03	0.03
2015-16	0.02	0.09	0.04	0.04	0.05
2016-17	-0.05	0.04	0.03	0.04	0.04
2017-18	0.05	0.07	0.05	0.03	0.03
2018-19	0.13	0.06	0.06	0.05	0.04
2019-20	0.19	0.05	0.09	0.06	0.05
2020-21	0.05	0.04	0.07	0.08	0.04
MEAN	0.05	0.10	0.08	0.04	0.04

(Sources: Computed from Annual Report of Selected Agrochemical Companies)

Interpretation:

The above table revealed that company wise price earnings ratio of selected top 5 market cap agrochemical companies for the period of 10 years starting from 2011 to 2021 during the period it is observed that Bharat ltd has 0.10% price earnings which was highest, when PI and Rallis ltd have 0.04% price earnings ratio, which was lowest among all selected top 5 market cap agrochemical companies.

Annual Stock Returns (RET)

It is computed from annual changes in share price plus dividends divided by previous year's share price.
Annual stock return (RET) Formula,

$$\text{Annual Stock Return (RET)} = \frac{\text{Annual Changes in Share Price + Dividend}}{\text{Previous Year Share Price}}$$

TABLE NO.: 5

ANNUAL STOCK RETURN IN (%) OF THE SELECTED TOP 5 MARKET CAP AGROCHEMICAL COMPANIES.

YEAR	ASTEC	BHARAT	DHANUKA	PI	RALLIS
2011-12	-1.26	0.34	0.10	0.82	-0.06
2012-13	-2.51	-0.04	0.35	0.21	-0.03
2013-14	2.79	0.41	0.46	0.47	0.28
2014-15	2.24	0.18	0.25	0.20	0.15
2015-16	0.16	0.01	0.09	0.00	-0.14
2016-17	0.34	0.08	0.05	0.02	0.22
2017-18	0.00	0.01	-0.04	0.01	0.07
2018-19	-0.02	0.00	-0.07	0.02	-0.17
2019-20	-0.06	0.00	-0.02	0.01	0.06
2020-21	0.15	0.01	0.16	0.04	0.20
MEAN	0.18	0.10	0.13	0.18	0.06

(Sources: Computed from Annual Report of Selected Agrochemical Companies)

Interpretation:

The above table revealed that company wise annual stock return of selected top 5 market cap agrochemical companies for the period of 10 years starting from 2011 to 2021 during the period it is observed that The Astec ltd and PI have 0.18% annual stock return which was highest, when Rallis ltd has 0.06% annual stock return, which was lowest among all selected top 5 market cap agrochemical companies.

DESCRIPTIVE STATISTICS FOR SELECTED TOP 5 MARKET CAP

Ratios	Company	N	Mean	Std. Deviation	Std. Error
Tobin's Q	Astec Life Science	10	2.1181	1.23859	0.39168
	Bharat Rasayan	10	2.5720	1.42694	0.45124
	Dhanuka Agritech	10	3.1857	1.45232	0.45926
	PI Industries	10	5.3183	2.61939	0.82832
	Rallis India	10	2.7768	0.67693	0.21407
	Total	50	3.1942	1.91291	0.27053
MV to BV	Astec Life Science Limited	10	3.6666	2.90947	0.92006
	Bharat Rasayan	10	3.5432	2.02037	0.63890
	Dhanuka Agritech	10	3.7295	1.84767	0.58429
	PI Industries	10	5.5746	2.73880	0.86608
	Rallis India	10	3.7854	0.98315	0.31090
	Total	50	4.0599	2.25362	0.31871
Dividend yield	Astec Life Science	10	1.1030	1.45043	0.45867
	Bharat Rasayan	10	0.6050	0.86963	0.27500
	Dhanuka Agritech	10	1.3540	1.20407	0.38076
	PI Industries	10	1.2100	1.63070	0.51567
	Rallis India	10	1.4350	0.34562	0.10929
	Total	50	1.1414	1.17845	0.16666
PE Ratio	Astec Life Science	10	0.0540	0.06501	0.02056
	Bharat Rasayan	10	0.0950	0.05523	0.01746
	Dhanuka Agritech	10	0.0780	0.03615	0.01143
	PI Industries	10	0.0410	0.01792	0.00567
	Rallis India	10	0.0430	0.00823	0.00260
	Total	50	0.0622	0.04582	0.00648
Stock Return	Astec Life Science	10	0.1826	1.51010	0.47754
	Bharat Rasayan	10	0.1002	0.15779	0.04990
	Dhanuka Agritech	10	0.1230	0.17963	0.05680
	PI Industries	10	0.1796	0.27028	0.08547
	Rallis India	10	0.0580	0.15533	0.04912
	Total	50	0.1287	0.67046	0.09482

Interpretation:

The above table shows the top 5 market-cap agrochemical companies ratio-wise descriptive statistics. It can be observed from the above table that PI Industries' standard deviation was 2.61939, which was the highest, and Rallis India's standard deviation was 0.67693, which meant PI Industries had more fluctuation and Rallis India had less fluctuation in the Tobin q ratio. The market to book value ratio observed by PI Industries had a standard deviation of 2.73880, which was the highest, and Rallis India had a lower standard deviation of 0.98315, which meant PI Industries had more fluctuation and Rallis India had less fluctuation in the market to book value ratio. The dividend yield ratio observed, PI Industries was found to have high fluctuation, and Rallis India was found to have less fluctuation in dividend yield ratio. The price-earnings ratio observed, Astec Life Science was found to have high fluctuation and Rallis India had less fluctuation in the price-earnings ratio, whereas in the stock return ratio observed, it was found that Astec Life Science had high fluctuation and Rallis India had less fluctuation in the stock return among the selected top 5 market cap agrochemical companies.

HYPOTHESIS AND ITS TESTING AS PER RATIO WISE

Ratios		Sum of Squares	DF	Mean Square	F	Sig.	Results
Tobin's Q	Between Groups	62.311	4	15.578	5.992	0.001	Different
	Within Groups	116.990	45	2.600			
	Total	179.302	49				
Market to Book value	Between Groups	29.005	4	7.251	1.484	0.223	Indifferent
	Within Groups	219.856	45	4.886			
	Total	248.860	49				
Dividend Yield	Between Groups	4.253	4	1.063	0.750	0.563	Indifferent
	Within Groups	63.796	45	1.418			
	Total	68.049	49				
Price Earnings Ratio	Between Groups	0.022	4	0.006	3.080	0.025	Different
	Within Groups	0.081	45	0.002			
	Total	0.103	49				
Stock Return	Between Groups	0.113	4	0.028	0.058	0.993	Indifferent
	Within Groups	21.913	45	0.487			
	Total	22.026	49				

Interpretation:

The above table show that whether there is a significant difference existence in market based ratio among selected large cap agrochemical companies of India. During this research study it is observed that Tobin Q Ratio, Price Earnings Ratio have found the value are 0.001% and 0.025% respectively it is less than significant value that meant that there is significant different Among selected large cap Agrochemicals companies where was as looking other side Market to book value ratio, Dividend yield ratio and Stock return have found the value are more than 0.05% that indicate insignificant means that there is no significant different among Selected large cap Agrochemical of India thought this research study.

MAJOR FINDINGS

The researcher has found that all selected top 5 market cap agrochemical companies have tobin q ratio is more than 1 that indicate all companies have market value is more than that book value it is that meant all selected top 5 market cap agrochemical companies have good market based performance. Whereas market to book value observed is to be found that all selected top 5 market cap agrochemical company has MTBV ratio is greater than 1 it means all companies market value is greater than its book value it indicates overstated companies assets in relation what actually they have. During the research period it is found that all the selected top 5 market cap companies have dividend ratio is less than the ideal position. The researcher has found found that the rallis ltd has annual stock return was 6% during research period it is less 10%, where as rest of all company have average annual stock return was more than 10% so it indicate adequate return provide to its shareholders.

RECOMMENDATION:

Here researcher is to be found that all selected top 5 market cap agrochemical company has MTBV ratio is greater than 1 it means all companies market value is greater than its book value that indicates overstated companies assets in relation what actually they have so it to be recommended that all company should try to maintain it equal and it is to be found that all selected top 5 market cap agrochemical companies have price earnings ratio is less than ideal ranged so it is to be recommended that try to maintain it. During the whole research period it is to be found that all the selected top 5 market cap companies have dividend ratio less than ideal limit so it should try to maintain in ideal position and it is also to be found that the Rallis ltd has annual stock return is less than ideal so it is to be recommended that they should try to maintain it.

CONCLUSION:

The present study is carried out descriptive analysis to understand whether there is significant different among the market based performance of all selected top 5 market cap agrochemical companies of India for that the researcher has took the period of studies is 10 years it starting from 2011-12 to 2020-21 for that measuring market based performance, the researchers have used market based ratio analysis techniques on that basis researcher was found that Tobin Q ratio, Price Earnings ratio have found significant different Among selected top 5 market cap agrochemicals companies where as looking other side Market to book value ratio, Dividend yield ratio and Stock return have not found means that there is no significant different among selected top 5 market cap agrochemical of India.

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