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Research Papers

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## PERFORMANCE EVALUATION OF KISOR P/E INVESTING

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### Abstract

*The P/E ratio is often used as a metric of investment in equities as Price-earnings is one of the style of investing which is used in picking value stocks in India as well as other parts of world. But so far no concrete research has been shown that Kisor P/E style of investing is yielding good return especially in Indian context. This fact has come to our notice by the review of earlier studies. To examine its effectiveness, we applied Kisor model to Nifty 50 Index over a period of 5 years (2006 to 2011). Our study proves the fact that, Kisor P/E Style of investing yield superior return over a study period.*

*Hence, this study identifies Kisor P/E as one of the better stock picking strategy for retail investing class as it is one of the better valuation measures to identify the undervalued stocks in the Indian Equity market.*

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### SECTION: I

#### INTRODUCTION:

For several decades investors have used price earnings multiple as a measure of picking a cheap stock for investment. A Stock that trades at a lower multiple of earnings is often characterized as cheap, and investment advisers and have developed rule of thumb over a period of time. Some analyst use certain absolute measure; like Sir Jhon Templeton, who adjudge Price earnings multiple as one of the favorite investment metric, Benjamin Graham who used P/E of 15 or less and Peter Lynch inventor of PEG Style has recommended Price earning multiple one most powerful investment metric.

So, Price earning multiple is regarded as a good indicator for Value buyers and buying stock with low Price earnings multiple may generates high returns. Hence, the present study makes an attempt to identify the investment opportunities that are available in Indian Equity market through

Kisor P/E style of investing.

#### ABOUT KISOR P/E MODEL:

It is model developed by Whitbeck Kisor in the 19<sup>th</sup> Century in order to test the relationship between variables like growth rate, dividend payment rate and risk in growth rate using multiple regression technique and indicate the impact of all three variables on the Price- Earnings ratio, the coefficient of the equation indicates that 1% increase in growth rate would cause 1.5 units of increase in the P/E ratio, one percent increase in dividend payout would results in 1.5 unit increase in P/E ratio. Hence the above equation indicates higher growth, higher dividends and lower risk will results in high P/E and vice-versa.

### SECTION: II

#### REVIEW OF LITERATURE:

One of the most-widely reported figures in the financial press is the price to earnings (P/E) ratio.

Traditionally, the P/E ratio has been assumed to be an indicator of the quality of an investment. A relatively low P/E ratio implies a good investment, whereas a relatively high P/E ratio indicates a “poor” investment prospect. Given the apparent widespread market interest in the P/E ratio, Considerable academic research has been investigated the role of the P/E ratio in market valuation of securities etc. Following are the major reviews of our study.

**Gillan(1990)**<sup>1</sup> examined the existence of P/E ratio and size effect in the New Zealand Stock Exchange, found that the size effect was documented and there were no traces of P/E effect.

**Obaidullah (1991)**<sup>2</sup> investigated the existence of P/E anomaly in the Indian stock market, he found that the return on low P/E portfolio was consistently higher than the return on high P/E portfolio. He concludes that stock price adjustment to earnings information in Indian stock market is purely biased and inaccurate.

**Campbell and Shiller (1988) and Shiller (2000)**<sup>3</sup> in his study 'Irrational Exuberance of P/E' investigate value of multi-year earnings averages. However they also looked at earnings over the index as a whole, rather than the earnings level of individual companies with special reference to the P/E effect.

**Tuli and Mittal (2001)**<sup>4</sup> focused on the factors influencing P/E ratios of Indian equities. The results reveal that the variation in the market price and dividend payout ratio affects the P/E ratios across the industries.

**Mangala and Mittal (2005)**<sup>5</sup> considers 240 listed companies in BSE over a period of 10 years (September 1996 to September 2006) with a view examines the P/E information and security prices as postulated by the semi-strong form of efficient market hypothesis. They found that the portfolio with negative or low P/E have outperformed against other portfolios formed on the basis of raw returns as risk adjusted returns. They concludes that seasonality or pattern in distribution in the stock exists in the Indian stock market.

**Dhankar and Kumar (2007)**<sup>6</sup> examined the monthly P/E ratio of BSE 100 Companies over a period of 10 years (1996-2005). The paper found no consistent relationship between the portfolios expected return and their corresponding P/E ratios. It is also observed that the stock market fail to reflect instantaneous response pertaining to earnings information. However during the pool

(June 1996 to Dec 1999) and sub (Dec 2003 to May 2005) periods the relationship between portfolio expected return and market risk is found to be positive and very significant.

**P.K. Dey(2009)**<sup>7</sup> in his article focused on the average P/E ratio of 2,473 Indian companies among 35 industries consisting of oil & gas, pharmaceuticals, textiles, entertainments, sugar and jewellery industries showed increase in P/E ratio during the past one year. On the other hand, lowest P/E was observed in shipping, paper, aluminum, steel and fertilizer industries, which have shown significant increase during the study period. Research concludes that investors should turn their savings in low price-earnings ratio (P/E ratio), which is showing a downward trend.

**Shashikant (2010)**<sup>8</sup> in his article in Dalal Street Journal considers 3 years share price data of BSE 'A' Group Companies P/E as one of the most important metrics of investment through dividing the companies on the basis of low P/E and EPS. Concludes that investment solely based on P/E may not fetch you right return.

**K.Singh (2010)**<sup>9</sup> in his article entitled “Pursuing the P/E factor” focuses on the low P/E factor in Indian Equity Market through forming the Portfolio on the basis of P/E, F.I.I movements as a market barometer for a period 10 months. He concludes that low P/E may be prudent strategy of investment but before understanding the nature of business, reason of underperformance and future prospectus of company.

**K.Raghupathi Rao(2010)**<sup>10</sup> identified P/E multiple as most commonly used method in the world of investment. He identified two components of Price earnings multiples, namely Tangible and Franchise P/E multiples which measures true value of stocks. Further, he suggested that investors should take a note of these two factors before making investment on the basis of Price earnings multiple.

**After reviewing above literature we came to know that several studies have been undertaken on P/E style of investing in Indian Context. But no one tested Kisor P/E model in Indian context. Hence this research gap is prompted us to take the study on 'Kisor P/E' style of investing in Indian Context.**

#### **OBJECTIVES OF THE STUDY:**

1. To find out value stocks using Kisor P/E model in National Stock Exchange.

2. To analyze the performance of the portfolios using Kisor P/E model as a metric of investment

3. To determine the rate of return of the portfolio of undervalued, overvalued and fairly valued stocks respectively.

4. To offer suggestions in the light of the findings to investors.

#### **METHODOLOGY**

The following methodology is adopted to conduct our study;

Firstly, we have computed sustainable growth rate (g) of respective companies in NSE using the following, Return on net worth \* Retained earnings/100. Secondly, Dividend payout ratio and standard deviation of respective companies were extracted from CMIE database at the beginning period say March 2006. In the third step Kisor P/E has been computed through following equation.

$$P/E = 8.2 + 1.5(g) + 6.7(d/p) - 0.2 \sigma$$

Where;

P/E= Price earnings ratio

g = sustainable growth rate

D/p= dividend payout ratio

$\sigma$  = Standard deviation

Then we have compared the value of Kisor P/E with that of actual P/E in order to form three portfolios namely undervalued, overvalued and fairly Valued stocks. A Script is said to be undervalued only when Kisor P/E value is less than actual P/E. Similarly a script is said to be overvalued only when value of Kisor P/E is more than the value of actual P/E. Likewise a script said to be fairly valued, when Kisor P/E value is equal to actual P/E. To make results more understandable and meaningful, a paper investment of ` 50,000 has been made in three portfolios at the initial period. Finally return on investment is derived using the following equation.

$$ROI = [(PY/LY) - 1] * 100$$

Where,

ROI= Return on Investment

P.Y. = Present year

L.Y= Last year

accordingly the analysis was carried out to bring findings and conclusion

#### **SOURCES OF INFORMATION:**

The present study is based on secondary

source of information. To speak specifically, our study covers 50 scripts of National Stock Exchange and for the above study data has been gathered from CMIE PROWESS data base and SEBI Circulars with study period covering from March 2006 to March 2011.

#### **STRUCTURE OF THE STUDY:**

The itinerary of the paper is as follows. Section II is organized to present brief literature review, objectives, methodology, Sources, Structure and Scope of the Study. In Section III. Results and analysis was carried out. Section IV discuss findings, limitations and certain suggestions and also summarizes the paper.

#### **SCOPE OF THE STUDY:**

This study is expected to produce certain findings and evidences. The retail investing class in particular and other investing class in general would be guided to make the best return from Equity Investment using the evidences and findings of this paper.

#### **SECTION: III**

#### **RESULTS AND ANALYSIS**

As the Indian equity market is expected to zoom ahead, efforts are now on grabbing low P/E stocks. Taking the cue from this buzz we have compiled a list such stocks on the basis of Kisor P/E. But the caveat here is 'look before you leap'

TABLE 3.2 SHOWING PORTFOLIO PERFORMANCE OF UNDERVALUED STOCKS

Company Name	Capital Allocation	Current Market Price (31/03/06)	No. of shares	Current Market Price (31/3/11)	Investment Value as on (31/03/05)	Investment Value as on (31/3/11)	Return On Investment (%)
BPCL	10,000	425.30	23	611.85	10,000	14,072.55	40.72
Maruti Suzuki	10,000	874.30	12	1262.15	10,000	15,145.80	51.45
Tata Power	10,000	931.85	11	1248.35	10,000	13,731.85	37.31
HCL Tech	10,000	654.20	15	477.95	10,000	7,169.25	(28.30)
Dr.Reddy's	10,000	582.40	17	1335.15	10,000	22,697.55	126.97
<b>Total</b>					<b>50,000</b>	<b>72,817.00</b>	
<b>Average</b>							<b>45.63</b>

Figures in ( ) indicate negative

#### **Analysis:**

BPCL occupied first position in the portfolio which is trading at `611.85 with 40.72 percent return which makes it a good value candidate when compare to its peers. Maruti Suzuki occupy second with a return of 51.45 and Tata Power a leading Power production company touched a dizzy high of `1248.35 on 31-03-2011 with 37.31 return. While, HCL performance was bit poor as it yield negative return of 28% on its investment. Pharma Company, Dr.Reddy's



outperformed with 126.97% returns to its investors during the study period.

Company Name	Capital Allocation	Current Market Price (31/03/06)	No. of shares	Current Market Price (31/3/11)	Investment Value as on (31/03/05)	Investment Value as on (31/3/11)	Return On Investment (%)
ABB	10,000	2885.45	4	796.80	10,000	3,187.20	(68.12)
ACC	10,000	782.20	13	1074.55	10,000	13,969.15	39.69
BHEL	10,000	2241.95	4	2062.65	10,000	8,250.20	(17.40)
ONGC	10,000	1311.35	8	291.30	10,000	2,330.40	(76.69)
Wipro	10,000	559.70	18	480.20	10,000	8,643.60	(13.56)
<b>Total</b>					<b>50,000</b>	<b>36,380.55</b>	
<b>Average</b>							<b>(27.21)</b>

Figures in ( ) indicate negative

#### Analysis:

The above table depicts that, out of 5 stocks, ABB leader in power and automation technologies trading at ` 796.80 yields 68.12 negative returns on its investment. ACC leading Cement Company trading at ` 1074.55, yields 39.69 positive return on its investors. Oil and Natural Corporation performance was worst performer during the study period as it witnessed a negative return of 76% on its investment when compare to its peers returns. BHEL performance was bit poor during the study period as it yields 17.40 percent negative return on its initial investment. Whereas, Wipro a computer software company was trading at ` 480.20, yields 13.5percent negative return on their investment.

But another way of interpretation for our study is that, a strategy of investing in stocks just based upon their P/E ratio can be harmful. A more nuanced strategy of investing in P/E stocks with reasonable growth and below average risk offers more promise and assured return, but only if you are a long term investor.

#### SECTION: IV FINDINGS, LIMITATIONS AND SUGGESTIONS

##### FINDINGS, LIMITATIONS AND SUGGESTIONS

#### 4.1 FINDINGS:

Following are the major findings of the study:

1. The present study covers 50 scripts NSE. Out of these stocks 12 are undervalued and 35 stocks are overvalued and no stocks were fairly valued. Hence, we have an inference that the market misprices the shares and securities. In other words, the market never is equilibrium.
2. From the above analysis it is clear that investment in undervalued stock has more

provision for higher rate of return when compare to overvalued stocks. This is evident from the above table no 3.2 portfolio of undervalued stock has yielded 45.63% average return where as overvalued stock has negative average return of 27.21 percentage because a person who invest in overvalued stocks will always go against the philosophy of buying low and selling high. Therefore investor has to make profit not only from selling the stock but from buying and holding.

3. The average return on investment of undervalued stocks is dominates with an aggregate return of 45.63% over average return on investment of overvalued stocks with an average negative return of 27.21%.

#### 4.2 LIMITATIONS:

The study suffers from following limitations:

1. Performance of the portfolio would have been read on returns, risk, liquidity and growth respectively. As far as this study is concerned, the performance of portfolio is read through the application of Return on investment. Higher Return on Investment better is the performance and vice-versa.
2. To ascertain the overvalued or undervalued stocks we have used Kisor P/E model as an indicator. But we could also have used other indicators like Dividend, Growth style etc.
3. No fairly valued stocks have been found to form the portfolio consisting of 05 stocks each, one for undervalued and another for overvalued.
4. Proposition Kisor P/E to ordinary people is a complicated one to understand g, dividend payout ratio and standard deviation. Hence, it suits only to professionals and knowledgeable people.

#### 1.3. SUGGESTIONS:

The following suggestions are offered from our study:

1. There are host numbers of methods to find undervalued and overvalued stocks. Finding the undervalued stocks is the sure way of making money. Because buying low and selling high is the philosophy of investment. Hence Kisor equation has proved the way for making money.
2. Undervalued stocks ensures higher rate of return due to margin of safety. Most of the times undervalued stocks are unfavored stocks by the market forces. Hence it requires patience and perseverance. Patience pays dividend in the long run. Along with this, discipline is also more

important. One need not pay heed to humor and rumor.

3. To have 100% guarantee of making money, investment in undervalued stocks will be undertaken by focusing on other vital variables like return on equity, provision for growth, management talent and specific sector.

4. Using growth rate, dividend payout ratio and volatility of the stock in making investment ensures appreciation of the stock over the period. In fine, we can say that investment in equity should neither be purely P/E nor some other variables. It is the commonsense of the market trend and veracious reading of the development of stocks through news paper will be the way for enhancing investment value.

5. Before making any investment, we should understand the nature of business, reasons for underperformance and future prospectus are important for taking a call on the basis of Kisor P/E model.

#### CONCLUSION:

Investors should dig deeper to unearth factors that have led to decline in their valuation. Besides, they should focus on the financial performance, revenue visibility, corporate governance record, future outlook and also examine the sustainability of earning in growth before taking the plunge in the market.

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#### ANNEXURE

Table showing Dividend Per share, Closing Market Price, Dividend Yield of National Stock Exchange as on MARCH 2006

Sl No	Script Name	Dividend payout (%)	RONW (%)	Growth (%)	ERR (%)	Volatility (%)	P/E	Kisor P/E
11.	ABB Ltd	12.67	32.88	28.71	87.33	1.53	36.57	51.80
12.	ACC	23.70	41.57	31.71	76.30	2.80	12.29	57.98
13.	Bajaj Auto	---	---	---	---	1.60	---	---
14.	Bharti Airtel	---	31.82	---	---	2.23	38.96	---
15.	BHEL	21.78	25.20	19.71	78.22	1.97	33.67	38.82
16.	B.P. Corporation Ltd	32.40	3.77	2.54	67.60	1.32	45.73	13.91
17.	Cipla Ltd	26.54	34.55	25.38	73.46	1.45	33.89	47.75
18.	Dabur	60.49	45.56	17.71	38.89	2.21	37.57	38.37
19.	Dr.Reddy	20.71	9.33	7.35	78.82	2.26	51.63	20.15
0.	GAIL	38.59	24.84	15.25	61.41	1.59	12.29	33.33
1.	Glaxo	54.88	45.66	8.17	17.90	1.69	22.55	23.79
2.	Grasim Industries Ltd	32.06	35.36	24.02	67.94	1.98	22.57	45.98
3.	Gujrat Ambuja Cement	21.89	18.56	14.49	78.11	1.57	10.42	31.08
4.	HCL Technologies Ltd	91.17	20.72	1.82	8.83	2.28	37.38	16.58
5.	HDFC	42.04	30.11	17.45	57.96	1.71	28.09	36.84
6.	HDFC Bank	20.34	17.74	14.13	79.66	1.41	28.63	30.47
7.	Hero Honda Motors Ltd	43.63	55.46	31.26	56.37	1.29	19.42	57.75
8.	Hindalco Industries Ltd	13.34	19.17	16.61	86.66	2.58	11.07	33.49
9.	HUL	79.40	61.46	12.66	20.60	1.87	35.93	32.12
10.	Hindustan Petroleum	26.01	4.72	3.49	73.99	1.01	26.76	14.97
11.	ICICI	31.20	14.62	10.05	68.80	1.14	21.53	25.13
12.	Infosys Technologies	55.10	39.89	17.91	44.9	1.63	36.62	38.43
13.	IPCL	---	---	---	---	1.45	---	---
14.	ITC	47.48	26.55	13.94	52.55	1.93	34.97	31.90
15.	Jet Air ways	11.65	12.60	11.13	88.35	1.70	18.76	25.33
16.	Larsen Toubro	31.57	21.27	14.55	68.43	1.84	34.46	32.49
17.	Mahindra and Mahindra Ltd	8.60	24.19	2.21	9.14	2.37	17.78	11.61