Price Earning Growth Ratio as an Effective Tool in selection of Stocks for Investment – Evidence from Midcap IT Stocks Listed in NSE India

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Abstract: **Investing in stocks is considered very risky if careful analysis of the company's financial data is not done. Company's credit worthiness and performance can be analyzed by examining the profit and loss account, balance sheet and cash flow statement. But an easiest tool available to determine the best stocks for investment is PEG (Price earnings to growth) ratio. In this context the research is done to find whether PEG ratio is an effective tool in selecting stocks for investment. Mid cap IT stocks listed in NSE India are selected for the study and PEG ratio is calculated before investment based on EPS CAGR and PE ratio. The performance of the stocks was tracked for five years and the data has been analyzed. The percentage return on investment is compared with market return to determine the efficiency of investment. The study proves that PEG ratio is an effective tool for investment as stocks with PEG less than 1 have given remarkably higher returns compared to the market return. Retail investors can use PEG ratio than PE ratio to identify stocks for investment with higher returns.**

Keywords: **PEG, MIDCAP Stocks, EPS CAGR.**

I. INTRODUCTION

Selecting the right stock for investment is the mantra behind wealth maximization of individual investors. Financial analysis, performance evaluation and decision making has to be done to determine the ideal stock for investment. In that list there is an effective ratio for analysis called the PEG ratio. Price / earnings to growth ratio is a stocks' price to earnings ratio divided by the growth rate of its earnings for a specified time. PEG ratio gives complete information than a PE ratio. PEG ratio considers both value of stock price and growth rate. The PEG ratio was conceived in the 1960's by James D. Slater, (Investopedia, 2010). (Lynch, 2000) outlines the benchmark parameters for utilizing the PEG ratio, suggesting that a firm is "fully" valued when its trailing PE ratio approximates its short term growth rate (i.e. PEG = 1.0) and that stocks valued at a PEG < 0.5 are most likely undervalued, while stocks valued above a PEG>2.0 are most likely overvalued. A 2001 Business Week article refers to the PEG as a "useful statistic for comparing "busted" growth stocks" and cites investment fund managers who avidly support the ratio (Braham, 2001).

More recently researchers feel that the PEG as a tool that "helps investors sniff out potential bargains, often indicated by a PEG below 1.0" (Murdock, 2008). Indeed, there is some empirical evidence of the PEG's ability to generate abnormal trading profits (Schatzberg and Vora, 2009).

However, *(Easton)* concluded that PEG ratio was a reasonable first-line tool for the assessment of expected returns. In other words, it can be said that low PEG indicates that the ratio of PE to dividend growth rate is low and promises a better future for stock returns. By contrast, high PEG indicates that the ratio of PE to dividend growth rate is high and a low return is expected for those stocks. (Bradshaw, 2004) Investigates the issue of whether PEG or intrinsic value pricing models are more useful predictors of future returns. His results show that trading strategies based on intrinsic value models yield greater returns. Indeed, academic texts often refer to the PEG as a rule of thumb with "little theoretical foundation," (Fafatas,S., & Shane,P. 2011), and a good tool for sell-side analysts because it is an easy method to justify their target prices (Lundholm and Sloan, 2007).

Stock return is one of the factors influencing investors' purchase decisions. Since the analysis of financial ratios is of great importance for realization and prediction of future returns of stock, if we can predict the returns of stock and offer a way to support this prediction it will encourage investors to invest on stocks. PEG is a widely employed indicator of a stock's possible true value. Similar to PE ratios, a lower PEG means that the stock is undervalued. It is favored by many over the price/earnings ratio because it also accounts for growth. This research focuses on proving that PEG is one of the tools to identify best stocks for investing. For this research midcap IT stocks were chosen. The PEG ratios for these stocks were calculated from 2007 to 2012 and top companies selected. Assuming that the investment in these stocks was made on January 2013, the performance of the stock has been tracked from 2013 to 2017 and the data has been analyzed.

II. RESEARCH METHODOLOGY

Population:

IT companies listed in NSE

Sampling framework

Based on the market capitalization, mid cap IT companies were selected.

Company name	Symbol
NIIT Technologies	NIITTECH
Zensar Technologies	ZENSARTECH
Justdial Ltd.	JUSTDIAL
Cyient Ltd.	CYIENT
eClerx Services	ECLERX
Persistent Systems	PERSISTENT
Tata Elxsi	TATAELXSI
Hexaware Technologies	HEXAWARE
Info Edge India	NAUKRI
MphasiS	MPHASIS

Framework of analysis:

From the 10 Midcap IT companies chosen those whose PEG ratio is 1or less than 1 are chosen as the best stock for investment.

- The data for the research has been collected from NSE (National Stock Exchange) site, money control and other different sites.
- Mid cap companies were selected.
- Earnings per share for the mid cap companies was collected from 2007 to 2012 and tabulated.
- Compound annual growth rate (CAGR) was calculated using the formula :

$$CAGR = \left(\frac{\text{Ending Value}}{\text{Beginning Value}} \right)^{\left(\frac{1}{\text{\# of years}} \right)} - 1$$

- With the calculated EPS CAGR, PEG ratios were determined using the formula PEG = PE /CAGR
- Stocks with PEG ratio less than 1 or 1 selected. The return of those best stocks selected was calculated from 2013 to 2018.

PEG Ratio Signal Guide:

0.50 or less ≥ Strong Buy

0.50 to 0.75 ≥ Buy

0.75 to 1.00 ≥ Hold

1.00 to 1.25 ≥ Possible Sell

1.25 to 1.75 ≥ Consider Shorting

Over 1.75 ≥ Short/Sell

III. ANALYSIS AND INTERPRETATION OF DATA

Table 1: EPS of Midcap IT Companies

Stocks	2007-08	2008-09	2009-10	2010-11	2011-12
NIIT Technologies ltd	24.38	15.07	16.17	20.8	18.97
Zensar Technologies	18.94	25.23	39	20.43	21.78
Cyient Ltd	11.17	12.83	22.84	10.59	14.23
eClerx Services	23.27	32.04	38.14	41.09	54.14
Persistent Systems	23.34	16.34	29.26	33.4	34.35
Tata Elxsi	16.91	18.66	15.39	10.19	10.9
Hexaware Technologies	2.56	8.65	6.39	7.91	9.63
Info Edge (India) ltd	20.33	21.87	20.86	15.38	22.46
MphasiS ltd	10.58	39.93	47.48	37.23	29.08

Table 1: EPS CAGR AND PE RATIO OF MIDCAP IT STOCKS

Stocks	CAGR(%)	PE(2012)
NIIT Technologies	-4.89	14.28
Zensar Technologies	2.83	8.26
Cyient Ltd.	4.96	9.71
eClerx Services	18.40	10.21
Persistent Systems	8.04	4.66
Tata Elxsi	-8.41	17.97
Hexaware Technologies	30.34	8.83
Info Edge India	2.01	16.18
MphasiS	22.41	13.29

Figure 1 : IT STOCKS CAGR
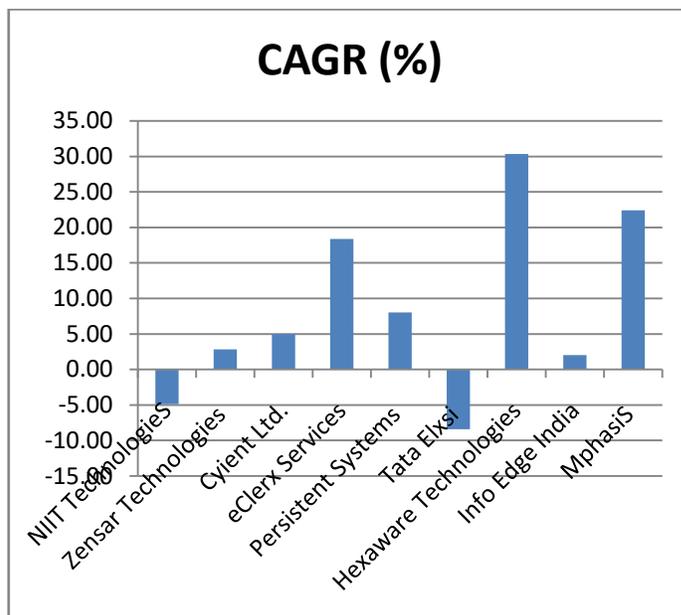
Table 3 :PEG ratio of midcap IT Stocks

Stocks	PEG ratio
NIIT Technologies	-2.92
Zensar Technologies	2.91
Cyient Ltd.	1.96
eClerx Services	0.55
Persistent Systems	0.58
Tata Elxsi	-2.14
Hexaware Technologies	0.29
Info Edge India	8.04
MphasiS	0.59

Inference: The table shows that four companies eClerx Services, Persistent Systems, Hexaware Technologies, MphasiS PEG ratios are less than 1. These four stocks are selected for investment.
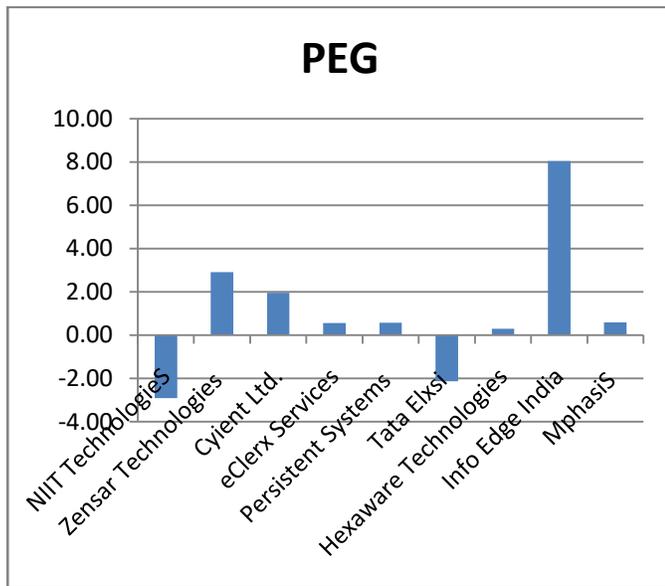
Figure 2 : PEG Ratio of IT Stocks

Table 4 : Share prices of 4 best stocks selected using PEG ratio 2013-2018

	shares prices on JAN (open prices)					
	2013	2014	2015	2016	2017	2018
eClerx Services	527	806	974	1430	1416	1576
Persistent Systems	256	495	829	643	610	712
MphasiS	385	442	388	499	556	735
Hexaware Technologies	85	132	200	245	210	342

Inference: The share prices of all the four stocks selected have increased proving that PEG is an ideal tool for investment.

Table 6 : Comparison of Share price and Nifty price changes from 2013 to 2018

Stocks	2013-2018	Nifty 2013-2018
EclerxSrevices	199%	73%
Persistent Systems	178%	
Hexaware Technologies	91%	
Mphasis	302%	

Inference: The table shows that the percentage gain in stocks is comparatively higher than the percentage gain in nifty proving that PEG is an effective tool for selecting stocks for investment.

IV. MAJOR FINDINGS AND DISCUSSION

The research proves that PEG is an effective tool for identifying the best stocks for investment. In this study, of the top 10 mid cap IT stocks only 4 stocks were selected for investment based on the PEG ratio. NIIT Technologies, Zensar Technologies, Cyient Ltd, eClerx Services Persistent Systems were the stocks with less than 1 PEG and were considered as efficient stocks for investment. The prices of all these stocks have appreciated considerably from 2013 to 2018 with a minimum increase of 91% to a maximum increase of 302%. These stocks have moved in tandem with nifty index. The profit obtained from the investment of these stocks outperforms the market return which is 73%. This clearly shows that, price earning to growth ratio is a valuable tool for selecting the stocks for investment. Retail investors can use PEG ratio than PE ratio to identify stocks for investment with higher returns.

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