STUDY ON FINANCIAL RATIO ANALYSIS USED BY INVESTORS IN STOCK MARKET AND ITS IMPACT

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ABSTRACT

Objective: To analyse the demographic and investment patterns of the stock market investors, To understand which financial ratios impacted the investor returns.

Method: The present study used descriptive statistics for understanding the investors. This was followed by applying the discriminant analysis using the tool Advanced Excel. Prepared the structured questionnaire and collected data from the stock market investors. Variables for the study are identified by reviewing the existing literature. This study followed the descriptive methodology steps for findings and conclusion. Followed steps are literature review, questionnaire preparation, data collection, data cleaning, processing, analyzing them, and conclusion. This study limited to Telangana, India region.

Results and Conclusion: The stock market has investors from all categories of people. Most of them are aged between 20 and 40. We see that having more disposable income is increasing the chances of investing in stock market. As less income people struggle to satisfy their basic needs and have less disposable income. It is observed that most of investors are investing in multiple stocks and not in one bucket. They are interested in diversifying the risks. While investing they are spending time to gather information from all resources. At the time of investment more emphasis is on Growth of company and EPS. Most of the investors not looking at the financial ratios before making decision of investment in stock market. Hence, there is further chance of study to understand why some of the investors not looking at the financial ratios and why taking decision based on different parameters and how they are getting benefited.

Implications of research: Earlier research papers, and studies considered the technical ratio analysis to get the maximum profits, and did the sentiment analysis of the investors, but studies did not consider the opinion of the investors in terms of selection of ratios used for making the investment and get the maximum returns and which financial ratios actually impacted the returns of the investors in the stock market. So, it is the gap of the study.

Originality/value: 8%

Keywords: investors, stock market, financial ratios, investors, micro and macro-economic factors.

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ESTUDO SOBRE A ANÁLISE DO RÁCIO FINANCEIRO UTILIZADA PELOS INVESTIDORES NO MERCADO DE AÇÕES E SEU IMPACTO

RESUMO

Objetivo: Analisar os padrões demográficos e de investimento dos investidores no mercado de ações, para entender quais razões financeiras impactaram os retornos dos investidores.

Método: O presente estudo utilizou estatísticas descritivas para a compreensão dos investidores. Isto foi seguido pela aplicação da análise discriminante usando a ferramenta Avançado Excel. Preparou o questionário estruturado e coletou dados dos investidores de mercado. As variáveis para o estudo são identificadas pela revisão da literatura existente. Este estudo seguiu as etapas metodológicas descritivas para os achados e conclusões. As etapas a seguir são revisão de literatura, preparação de questionários, coleta de dados, limpeza de dados, processamento, análise e conclusão. Esse estudo limitou-se a Telangana, na região da Índia.

Resultados e Conclusão: O mercado acionário tem investidores de todas as categorias de pessoas. A maioria delas tem entre 20 e 40 anos. Vemos que ter mais renda disponível está aumentando as chances de investir no mercado de ações. Com menos renda, as pessoas lutam para satisfazer suas necessidades básicas e têm menos renda disponível. Observa-se que a maioria dos investidores está investindo em várias ações e não em um balde. Eles estão interessados em diversificar os riscos. Enquanto investem, eles gastam tempo para coletar informações de todos os recursos. No momento do investimento mais ênfase é no crescimento da empresa e EPS. A maioria dos investidores não olha para os rácios financeiros antes de tomar a decisão de investimento no mercado de ações. Assim, há uma chance adicional de estudo para entender por que alguns dos investidores não estão olhando para os rácios financeiros e por que tomar decisões com base em diferentes parâmetros e como eles estão se beneficiando.

Implicações da pesquisa: Anteriores trabalhos de pesquisa e estudos consideraram a análise de razão técnica para obter o máximo de lucros, e fez a análise desentimento dos investidores, mas os estudos não consideraram a opinião dos investidores em termos de seleção de rácios utilizados para fazer o investimento e obter o máximo de retornos e quais rácios financeiros realmente impactaram os retornos dos investidores no mercado de ações. Então é a lacuna do estudo.

Originalidade/valor: 8%

Palavras-chave: investidores, mercado de ações, rácios financeiros, investidores, fatores micro e macroeconômicos.

1 INTRODUCTION

The primary agenda of any investor is maximizing the returns from the stock market investment. For the decision of investor to invest, key important variable or factor is stock market returns. To choose or make best investment with low risk and maximum return, investor should know about the financial performance, health, and reporting of the
company. Anwaar (2016) says that investors have to use financial performance reports, fiscal health of the company helps to identify the right selection of the investment. Emamgholipour et al. (2013) according to author, financial information of firm can be in two types. First one is internal, here the details include cash flow, balance sheet, income statement and another one is external, here information available related to stock market. By using both internal and external information investor can make decision of investment.

While investor making decision to invest in stock market, he should evaluate the financial information of current, past, and future to get maximum returns of a firm. The frequent and regular best common techniques or method to financial information is financial ratio performance. The basic purpose of ration analysis for the assessment of the company pays and its obligations, company performance of statutory board, the managerial, business goals and its achievement of firm. Financial ratio analysis is used for the precise and accurate for selection of firm’s stocks. Namazi and Rostami (2006) says that micro-financial ratios are treated as glimpse of the financial reports of firm and that to provide the more details about internal and external situation of the company. So, micro internal ratios are most, and best common analysis used for evaluating the performance of company or firm.

Financial ratio analysis can be useful for comparing the performance of a company between the two periods. There are five major categories of financial ratios, those are efficiency, liquidity, leverage, market value and profitability ratios. Pech, Noguera, and White (2015) states that mostly financial ratios used by the equity analysts to predict the stock market returns over year or more than that.

In 1970, as per classical financial theory, hypothesis says that stock market investors have a rational and price of the stocks can reflect basic values. Because different phenomena in the stock market have come up with great impact on the financial theory which makes to consider the basic assumption of traditional finance. In 1970s and 1980s, behavioral finance brought into the picture. The basic objective of behavioral finance of investors in the market is to understand the investor psychology, behavior, and sentiment. (Gaoshan Wang, 2020) says that increase in social media usages, investors also making steps towards the social media forums or individual forums to know and get the information and details about the stock market, as well to share investor’s comments and opinion about the respective stocks of companies. The comments or opinion about the stocks can be two ways. At the first one, investors decision depends on their emotions.
And second one, stock forum comments which influence the decision-making behavior of an investor. So, the role of stock forum and social media forums brought more interesting and attention towards the other investor opinion and feedback. It will affect the stock market movements.

In modern days, data handling techniques and utilization of data are improved by using big data and machine learning techniques. So, collecting comments from the social media or forums analyzing them using different methods, and using for the prediction of the emotions of investors. Also, individual opinion and emotions on financial ratios and performance of company will be useful selection of stocks for decision making. This study trying to understand the which financial ratios encountered by investors and which ratios used for them, what are the characteristics of the investors and how investor referring financial ratios to other investor while making decision.

2 LITERATURE REVIEW

- (S. Amogha, and N. Suresh, 2019) The authors conducted an empirical study to understand the micro-financial ratios which are impacting the returns from the stock market investment. The study used stock market data from 2010 to 2017 and collected from the 12 companies of FMCG and Pharma sectors. The method followed to understand the return is panel vector autoregression fixed effect method and the Hausman test. From descriptive analysis and model results it is understood that stock markets return depends on the dividend per share and price to book value and understood that the relationship between the investment and returns have the short-term casual using hypothesis test. The study considered the primary data and technical study, but authors did not consider the actual investors returns and their opinion about the influencing ratios. It is the gap of the study.

- (Haritha P H and Abdul Rishad, 2020) The main objective of the author is to understand the role of irrational investors’ sentiments in determining stock market instability. For this, authors developed framework called GARCH and Granger to analyse its contribution to instability of collected the sentiments and its influence on the stock market returns by using the PCA- principal component analysis. The positive sentiments represent the more returns and negative sentiment represent the less returns. The study result explains the how to collect
the sentiments and make decision based on the principal component analysis formula. The current study is a theoretical study and didn’t collect any data to related to the individual investor opinion related to the returns. It is the gap of the study.

- (Wang, G., Yu, G., & Shen, X., 2020). Authors collected comments or opinion or feedback from the stock market website to understand the relationship between the investor’s sentiment relationship and stock market returns. For this authors used long short-term memory – LSTM method for classifying the sentiments. The final result of the analysis is investor’s positive sentiments impacting the stock market returns and volume of stocks. The methodology followed in this paper is collected data from the stock market website by using python and cleaned the data finally applied the machine learning to get the sentiments of the investors then conducted the impact analysis. This study did not convers the which ratios impacting the sentiments of the investors. It is the gap of the study.

Research Gap: Earlier research papers, and studies considered the technical ratio analysis to get the maximum profits, and did the sentiment analysis of the investors, but studies did not consider the opinion of the investors in terms of selection of ratios used for making the investment and get the maximum returns and which financial ratios actually impacted the returns of the investors in the stock market. So, it is the gap of the study.

3 RESEARCH OBJECTIVES

- To analyse the demographic and investment patterns of the stock market investors
- To understand which financial ratios impacted the investor returns.

4 RESEARCH DESIGN

The present study used descriptive statistics for understanding the investors. This was followed by applying the discriminant analysis using the tool Advanced Excel. Prepared the structured questionnaire and collected data from the stock market investors. Variables for the study are identified by reviewing the existing the literature. This study followed the descriptive methodology steps for findings and conclusion. Followed steps
are literature review, questionnaire preparation, data collection, data cleaning, processing, analyzing them, and conclusion. This study limited to Telangana, India region

Population and Sample size:

The population of the study is the investors who makes investment in the stock market in Telangana state. Sample size for the study is 31 investors who makes decision to invest in stock market, as per central limit theorem 31 data points considered as large sample that is the reason study collected minimum 31 samples for the study.

Data Source: Primary data and stock market investors are the source of the data for the study.

5 DATA ANALYSIS

Descriptive analysis:

The initial objective of the current paper is to analyse the demographic and investment patterns of the stock market investors. It will be helpful for understanding the investors decision making support and possibility of future decisions.

<table>
<thead>
<tr>
<th>Gender</th>
<th>% Of Respondents</th>
<th>Age group</th>
<th>% Of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>48%</td>
<td>20-30</td>
<td>55%</td>
</tr>
<tr>
<td>Male</td>
<td>52%</td>
<td>30-40</td>
<td>35%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>40-60</td>
<td>6%</td>
</tr>
</tbody>
</table>

The study collected data from 30 investors. Out of the 52% are male and 48% are female. 55% of investors are belongs to 20-30 age group, followed by 35% are from 30-40 age group. It means gender is doesn’t matter for investment in stock market. Young age (Youth) population more interested in stock market investment.

<table>
<thead>
<tr>
<th>Education</th>
<th>% Respondents</th>
<th>Type of Job</th>
<th>% Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSC</td>
<td>3%</td>
<td>Operational &amp; Technical</td>
<td>26%</td>
</tr>
<tr>
<td>Intermediate</td>
<td>3%</td>
<td>Professional</td>
<td>55%</td>
</tr>
<tr>
<td>Degree</td>
<td>19%</td>
<td>Supervisory &amp; Managerial</td>
<td>19%</td>
</tr>
<tr>
<td>Post Degree</td>
<td>74%</td>
<td>Grand Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Most of the investors are postgraduates i.e., 74%. Education of investor place a key role in decision making of investment. And most of the investors are doing
professional jobs (55%) and remaining are doing operational and managerial jobs. It is clearly understood that professional job holders are more interested towards the stock market investment.

<table>
<thead>
<tr>
<th>Income per Month</th>
<th>% Of Respondents</th>
<th>No. of stocks purchased</th>
<th>% Of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;20,000</td>
<td>6%</td>
<td>1</td>
<td>23%</td>
</tr>
<tr>
<td>20,000 to 30,000</td>
<td>13%</td>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>30,000 to 50,000</td>
<td>6%</td>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>50,000 +</td>
<td>74%</td>
<td>4</td>
<td>13%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>4+</td>
<td>45%</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td></td>
<td>100%</td>
</tr>
</tbody>
</table>

74% of investors monthly salary more than 50,000 INR, 13% of investors are belongs to the 20,000 to 30,000 INR salary range. It means that high salaried population looking for the investment in stock market. It might be reason that with saving money they are investing in stock market. Among the 31 investors, almost 45% of investors invested in more than 4 companies.

<table>
<thead>
<tr>
<th>Frequency of Investment</th>
<th>% Of Respondents</th>
<th>Spent on Stock Market</th>
<th>% Of Respondents</th>
<th>Of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depends on Market condition</td>
<td>68%</td>
<td>&lt;1,000</td>
<td>13%</td>
<td></td>
</tr>
<tr>
<td>Monthly</td>
<td>3%</td>
<td>1,000 - 2,000</td>
<td>3%</td>
<td></td>
</tr>
<tr>
<td>Monthly twice</td>
<td>3%</td>
<td>2,000 - 5,000</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>Regular</td>
<td>6%</td>
<td>5,000 - 10,000</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>With surplus money</td>
<td>19%</td>
<td>10,000 +</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>Total</td>
<td>100%</td>
<td></td>
</tr>
</tbody>
</table>

Frequency of investment shows the interest levels of an investor and their purchasing pattern in stock market. From current study it is understood that 68% of investors make decision of investment in stock market is based on the market condition. Market condition means that volatile or stability of share price of firm or company. It clearly explains that most of the investors invest based on the companies or firm’s current position not based on the financial ratios. Only 19% of investors invest with surplus money and frequent investment investors are very less.

In the above interpretation, 68% of investors making investment based on market condition and it advisable to know how much they are spending on stock market. 66% of investors on average spending more than 5000 INR on investment per each investment and remaining are spending less than that.
The source of information regarding the decision making on stock market investment for investors is from various sources. From this study it is understood that 26% of information from stock brokerage firms, and 26% from friend’s reference, and 23% from the google search. So, Brokage firms and friends playing a key role in choosing the stocks.

To understand which financial ratios impacted the investor returns.

![Figure 1](image)

From the above graph, it is understood that 74% of investors looking at the growth of the company before investment in the stocks. And 65% of the investors looking at the financial stability of the company. Only 42% of the investors looking at the financial ratios and its performance. Remaining things plays very less role in decision making for
investor. So, most of the investors not looking at the internal micro-finance ratios before investment.

Sometimes investors look at the financial ratios to understand the performance of the company or firm. If investor encounter, what kind of ratios he will be considering. Following Graph shows the investor’s determination on ratios.

![Figure 2]

From the above graph, it is understood that most investors look at the EPS-Earning per share, followed by PE – price to earnings ratio and DE- debt to equity ratio. Remaining ratios are having less preferences. It is clearly showing the investors consideration of ration for making decision.
Need to understand after making decision of investment in stock market and while taking returns, which ratios helped the investor. From the above graph it is understood 74% of investors benefited by using EPS - Earnings per share and remaining ratios which has less impact are EPS - price to earnings ratio and ROE - Return on equity, others not much benefited to the investors while taking returns.

6 CONCLUSION

The stock market has investors from all categories of people. Most of them are aged between 20 and 40. We see that having more disposable income is increasing the chances of investing in stock market. As less income people struggle to satisfy their basic needs and have less disposable income. It is observed that most of investors are investing in multiple stocks and not in one bucket. They are interested in diversifying the risks. While investing they are spending time to gather information from all resources. At the time of investment more emphasis is on Growth of company and EPS. Most of the investors not looking at the financial ratios before making decision of investment in stock market. Hence, there is further chance of study to understand why some of the investors not looking at the financial ratios and why taking decision based on different parameters and how they are getting benefited.
REFERENCES


