# The Operating; Financial and Liquidity Characteristics of Firm Size and its Impact on FIIs Investment Pattern

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ABSTRACT: History has exhibited that stock market plays a vital role in any economy. Stock markets have been impacted by various macro and micro economic factors. Therefore, the main objective of this empirical paper is to investigate the whether size affects the operating, financial and liquidity and its implications on participants. In order to realise the stated objectives the researchers have shortlisted the following key ratios based on the operating, financial and liquidity such as Market Capitalization, Financial Institutional Investors, Total Assets Turnover Ratio, PBIT/ Capital Employed, Debt Equity Ratio, Current ratio, Dividend/PAT, Book Value/ Adjusted Closing Price, EPS/Adjusted Closing Price, Cash EPS, Interest Coverage, and PBIT/Net Sales. The required data has been collected from the reported balance sheets and stock data of the one hundred companies. Various statistical tools like Analysis of Variance (ANOVA) and Kruskal Walli's Test has been used. The current study has confirmed that the only Market capitalization ratio, Average Traded volume and Total traded volume have a significance difference between Nifty Senior and Junior Stocks. Since it was only the mind-set of the FII's that differentiated the Nifty junior and senior.

**KEYWORDS:** Nifty Junior, Cash EPS, Return on capital employed, Foreign Institutional Investors (FIIs), Size effect.

Date of Submission: 07-09-2018	Date of acceptance: 24-09-2018

#### I. INTRODUCTION

The Indian stock market is one of the emerged market has witnessed several regulatory reforms after liberalisation of Indian economy. The improved market conditions and good regulatory measures need to increase the efficiency of the markets. The efficient market hypothesis postulates that the financial market needs to discounts all available information in the prices. Meantime, there should not be any market anomalies such as seasonality, weekend effect, January month affect, and size effect to become market efficient. However, there are factors affect the stock returns in the financial markets and motivate to investigate the existence of above anomalies. The existences of the size affect (small firms affect) signals to the investors to formulate the investment strategies to gain more profit by considering size of the companies. It assumes that small firms generate more returns compared to large firms. This returns also called risk adjusted returns because investors are willing to take more risk by investing in small size firms. However, the presence of size affect adversely affects the efficiency of the market. The presence size effect adversely impacts the output of model which are used to model stock prices behaviour (Roll, 1981). Likewise, other anomalies such as seasonality, liquidity premium are studied in foreign financial markets. The earlier research studies have shown the presence of size affect around the world. The studies are very limited in Indian context. Therefore, there is need to investigate the existence of size affect in the Indian stock market.

In this study we are using the **CNX Nifty index**, popularly known as the **Nifty fifty** index **is** a National Stock Exchange of India's (NSE) benchmark stock market index. The Nifty 50 is a robust diversified 50 stock index constituting 23 sectors of the Indian economy. It is the largest individual financial product in India. It is used for wide range of activities such as index based derivatives trading, hedging, OTC derivatives, ETF (both onshore and offshore), fund portfolios. Since CNX Nifty 50 is much more stable than any other indices in India, the current study on stability of beta has been undertaken of the CNX Nifty 50.

The Indian stock market has undergone metamorphic reforms in the past few years. Emerging economies like India is an engine for growth for FIIs. Indian economy is one of the largest economy in terms of nominal GDP and by purchasing power parity. This growth has been backed by huge inflows of foreign investments. Indian stock market with its colossal size offers great opportunities to both domestic and foreign institutional investors. With swift changes in the economy because of new economic policies, Indian stock market has become a major attraction to foreign Institutional investors. Recently, stock markets across the globe came under serious pressure because of slowdown in Chinese economy. However, the scenario is different in India. India

achieving good economic growth rate compared to other developing countries, decreasing in the inflation rate, the forex reserve in the RBI and countries balance of payment is in constructive shape. In addition, the India is also one of the considerable beneficiaries of the fall in global commodity prices especially crude prices due to fall in the crude prices from a few years. These factors directly or indirectly support all sectors of economy. The role of both large and small firms is very important from the perspective a developing economy like India. The small firms also significantly support the economic growth of the country by generating employment opportunities to people who may not be employable by larger corporations. Therefore the present study has been undertaken to understand the FIIs attitude towards the large and the small firms in Indian stock market.

#### **II. REVIEW OF LITERATURE**

A brief review of previous studies have been presented here to find the research gap in the proposed research topic. Extensive literature is available with respect to comparison between small and large firms for example, Roll (1981) pointed out that the small stocks actual returns are more due that the estimated returns are less due to systematic risk generated from daily stock returns is downward biased. Christie and Hertzel (1981) found that the non-stationarity of the risk measures leads to size effect in the stock returns. Cook and Rozeff (1984) concluded that the Canada, Belgium, Ireland, France, Japan, Switzerland, Mexico, Spain, and UK counties facing strong size effect in the stock returns. Berk (1996) stated that the usage of non-market based size factors in the study eliminates the size effect. Barry and Brown (1984) concluded that information on size companies significantly affects the returns of securities.

Wachtel (1942) found the presence of a January effect in the US stock market. It means in January month the investors have higher returns than any other month of the year. Later, January effect was evidenced by Rozeff and Kinney (1976) and various description have been added as causative to its persistence. Namely, Rogalski and Tinic, (1986), and Rozeff and Kinney, (1976) found the increased January risk premiums and increase in the liquidity (Ligon, 1997, andOgden, 1990) and tax motivated selling by individual investors (Lakonishok and Smidt, 1984; Ritter, 1988; Ritter and Chopra, 1989). Beside the different theories in explanation of the January effect, scholars have found mixed evidence of its persistence in the US markets (Haugen and Jorion, 1996; Compton and Kunkel, 2000).

This study is motivated by the rapid growth and modernization of the Russian stock and bond markets following the country's transition to a free market economy and its emergence as an economic power.

Generally, the size effect has negative relationship between security returns and the market value of the common equity. Banz (1981) was the first to show the size effect in the U.S. stocks (see also Reinganum (1981)). In the context of equation (1), Banz found that the coefficient on size has more explanatory power than the coefficient on beta in describing the cross section of returns. Indeed, Banz finds little explanatory power for market betas. Like the value effect, the size effect has been reproduced for numerous sample periods and for most major securities markets around the world (Hawawini and Keim (2000)).

Sehgal and Tripathi (2005) examined the size effect in the Indian stocks. They found a strong size effect in six alternative measures. Namely, M cap, enterprise value (EV), net fixed assets (NFA), net Annual sales revenue, total assets and net working capital have significant impacts on the returns of the stocks. They also pointed out that trading strategy which considers the size as one element is good to earn more profits. Banz (1980) investigated the relationship between the return and the market value (size effect) of NYSE common stocks. He pointed that the size effect is existing from more than 40 years therefore, the usage of CAPM not appropriate. In a study by Trewartha (1982) concluded that small firms face more serious problems than their larger counterparts in accessing finance and that the relative cost of debt is higher for small business. Similar findings were documented by Bird and Juttner (1975); Lambert (1984).

Key financial ration were used to compare the large and small firms for example, Chung (1993) and Rajan and Zingales (1995); tried to investigate the difference between the small and large firms through key financial ratios, predictions of business failure Altman (1968; 1973), Altman and McGough (1974), Deakin (1972) and Edmister (1972). Another stream of researchers focus their attention on key banking financial ratios for example, Hassan (1999); Poghosyan and Cihak (2009); Parlakkaya and Çürük (2011).

In an empirical study by Simon, (1976); Rothwell& Dodgson (1994) and Nooteboom (1994); Atkins and Lowe, (1997) documented that large firms generally enjoy economies of large scale of operations, they can access funds at a cheaper rates and greater capacity for specialization, in people as well as equipment. However, Mansfield et al. (1971) argued that in case of larger firms, decision making would get delayed because there are more people involved in decisions and there is a longer chain of command, there might be a managerial coordination inefficiency and loss of flexibility.

According to Cohen and Klepper (1996) compared with small firms, large firms are more likely to engage in research and development and also spend larger amounts on it (Cohen and Klepper 1996)

In an empirical study by Ernest W. Walker and J. William Petty, (1978) concluded that certain disparities do exist between large and small firms, implying that the management of the small size firms' is inherently

different in several respects. Fieldson et al. (1987) concluded that financial ratios of average size firms will be almost similar to the industry averages.

Arun Upneja et al. (2000) found that larger firms also are more profitable compared to smaller firms and smaller firms unable to benefits of economies of scale and they have lower efficiency ratios. Similar observations also evidenced by Walker and Petty (1978) and Osteryoung et al. (1992).

In the twentieth century, intensive empirical studies of the FIIs inflow and its impact on stock market has been documented for example, Douma, Kabir and Rejie (2006); John Andreas (2004); Borensztein et.al, (1998); Gordon and Gupta, (2003); P. Krishna Prasanna (2008); Dornbusch & Park (1995); Anand Bansal and J.S. Pasricha (2009); Kumar (2001); Namita Rajput et al. (2012); Rao (1999); Trivedi and Nair (2005); S. lakshmy (2014); Berko and Clark (1997); Batra, A (2004); Kishore C. Samal (1997); HemkantKulshrestha (2014); Siva Prasad & Hari Hara Raju (2014); Kumar (2002) ; Rai and Bhanumurthy (2003) ; Agarwal (1997); Chakrabarti (2001); Loomba, J. (2012); Kulshrestha 2014; Sanjana Juneja (2013). A stream of researchers found a positive and significant relationship between these two variables for example, Shrikanth, & Kishore (2012), Agarwal (1997); Poshakwale, & Chandra. (2007); Chakrabarti (2001); Bohra & Akash (2011); Nair & Trivedi (2003); Kaur, & Dhillon (2010); Hemkant Kulshrestha (2014); SanjanaJuneja (2013); Sultana and Pardhasaradhi (2012); Behera (2010); However, yet another stream of researchers such as Bansal and Pasricha (2009), Arora & Kumar (2015); Santosh Chauhan (2013); Devdatt J. Vyas &. Manoj D. Shah (2016) did not find any such evidence. Yet another stream of researchers tried to investigate the relationship between the FIIs inflow and its impact on the market volatility and found a significant impact on the market volatility for example, Bashir Ahmad & Zahoor Ahmad Mir (2014); Kim and Singal, 1993; Banerjee and Sarkar, (2006) they documented a reduction in volatility. However, another stream of researchers contradicted this view and they argue that the investment by FIIs gave rise to volatility in the stock market for example Jo (2002); Upadhyay, 2006; Bhattachrya and Mukherjee, 2005; Batra, 2003; Porwal and Gupta, 2006. In and empirical study by Devi, Deo; (2010) found a bi-directional relationship between FII and M cap and a unidirectional relationship between FII and return and also between return and market capitalization. Similar findings were documented by Shrikanth and Kishore, (2011).

The review of the literature on the proposed topic, thus throws light on facts relating to the gap in the study of the chosen subject. (i) Majority of the research studies have been conducted to know the relationship between FIIs, FDI inflows and its impact on stock market returns; and (ii) majority of the studies have been conducted to understand the differences in various key ratios between large firms and small firms. However, differences in investing attitude of FIIs on the basis of large firms and small firm's characteristics have not been explored and documented in the Indian literature. Hence, the present study has been taken up with a focus to bridge the gap in literature to understand the impact of the operating; financial and liquidity characteristics of firm size and its impact on FIIs investment pattern in Indian stock market.

The structure of the current paper is as follows. Section two outlines review of literature of the proposed title. Section three provides the data sources and the methodology employed for the purpose of the current study. In section four the empirical results are presented and in the last section discussion and conclusion have been made.

### III. RESEARCH DESIGN

#### **Objectives of the Study**

1. To find whether size affects the operating, financial and liquidity characteristics of the Indian listed firms in Nifty and Junior Nifty

2. To offer valuable suggestions based on this research work.

#### Hypothesis of the Study

Null Hypothesis H0: the operating (sales), financial (debt equity ratio, and liquidity (current ratio; characteristics does not substantially differentiates small firms from the larger ones

Alternative Hypothesis H1: the operating, financial and liquidity characteristics substantially differentiates small firms from the larger ones.

Key Ratios taken for the Study Purpose Return on capital employed (ROCE) ROCE = Earnings before Interest and Tax (EBIT) / Capital Employed. Market Capitalization (M Cap) M Cap = Current MP/S x No of shares outstanding Sales turnover FII: is refers to an organisation, firm, or an institution registered outside India, which makes investment in Indian companies stocks. Debt equity ratio Debt Equity Ratio =**Total liabilities / Total shareholders' equity** Current ratio Current Ratio=Current assets / Current liabilities Interest coverage ratio Interest coverage Ratio = EBIT/ Interest Total assets turnover ratio ATR = Sales or Revenues / Average Total Assets Net profit ratio NPR = (Net profit after tax / Net sales) × 100 Dividend pay-out ratio DPR: Annual dividend per share/ Earnings per share

Average and total traded volume: The average trading volume (ATV) is the amount of individual securities traded in a year for the study period of time. As there is no hard and fast rule as for as the time frame for computation ATV for the purpose of the study we have chosen the overall traded volume for the year and the annual average traded volume of each Nifty Fifty and Nifty Junior stocks. This ratio signifies the overall trading activity and indicates the liquidity position of a stock and typically larger companies have a larger daily trading volume than the smaller companies.

### **IV. RESEARCH METHODOLOGY**

#### Sampling

The sampling size is taken from NIFTY Senior 50 companies and NIFTY Junior 50 companies for 5 years from 31.03.2014 to 31.03.2018.

#### Sample Size

The sample for the purpose of the study consists of 100 companies forming part of CNX NIFTY and CNX NIFTY JUNIOR over the period of 31.03.2014 to 31.03.2018.

#### Sources of Data

As the study is analytical in nature the primary data was not collected and the study has been restricted to secondary sources only.

#### **Data Collection**

#### Secondary Data

The study uses the following accounting, financial and market related information regarding the sample companies i.e. number of shares outstanding ,daily trading volume, shareholding patterns, book value per share ,market price per share ,total long term debt, equity capital, operating profits(EBIT) ,net sales, fixed interest charges, capital employed ,total assets ,current assets and current liabilities.

The study uses the following parameters such as Market Capitalization, Financial Institutional Investors, Total Assets Turnover Ratio, PBIT/ Capital Employed, Debt Equity Ratio, Current ratio, Dividend/PAT, Book Value/ Adjusted Closing Price, EPS/Adjusted Closing Price, Cash EPS, Interest Coverage, and PBIT/Net Sales.

#### Period of Study

The study was conducted for a period of years starting from 2014 to 2018. Five years was taken.

#### Plan of Analysis

All the sample companies are ranked on the basis of market capitalization for both NIFTY and NIFTY JUNIOR indices and two equally weighted portfolios namely large firms. Portfolio consisting of top 50 stocks from CNX NIFTY with largest market capitalization and small firm's portfolio consisting of top 50 stocks from NIFTY JUNIOR with largest market capitalization. then various operating, financial and liquidity characteristics of the firms comprising these portfolios have been measured as at the end of the December 2012 then same securities consisting portfolios are constructed every year at the end of December till one reaches 2016 then averages of all the measures for the 5 years taken into account to derive the different characteristics of small and large portfolio stocks.

The collected data has been collated by using MS Excel software. Various statistical tools like Analysis of Variance (ANOVA) and The Kruskal–Wallis test has been used to arrive at the meaningful conclusion and a scheme of suggestion has been offered on the basis of summary of findings.

#### Limitations of Study

The study is limited to only for Nifty Senior and Nifty Senior indexes only; the study has taken only for 5 years of data (31.03.2014 to 31.03.2018) of 100 companies and the data collected are Historical data and no adjustments were made to capture the abnormal events which affect the variables under study.

Table 4.1: Table Showing Anova Test Statistics between Nifty Senior and Nifty Junior							
Sl. No	Factor	F Cal	F Critical	P-value	Accept / Reject		
01	FII	2.999005	3.940163	0.08652	Accept Null		
02	Market Capitalization	36.02989	3.9381111	0.000000	Reject Null		
03	PBIT/NET Sales	0.000435	3.940163	0.983409	Accept Null		
04	Asset turnover ratio	0.003578	3.940163	0.952427	Accept Null		
05	PBIT/Capital Employed	0.414307	3.94016252	0.521326	Accept Null		
06	Debt Equity ratio	3.841	3.94016253	0.185134	Accept Null		
07	Interest Coverage Ratio	1.356591	3.94016252	0.247015	Accept Null		
08	Current ratio	1.356595	3.94016252	0.247015	Accept Null		
09	DIV/PAT	1.381405	3.94016252	0.242769	Accept Null		
10	BV/Adj Closing price	2.513797	3.94016252	0.116142	Accept Null		
11	EPS/Adj Closing price	3.147923	3.94016252	0.079194	Accept Null		
12	Average Traded volume	5.345785	3.94016252	0.022910	Reject Null		
13	Total Traded Volume	5.345785	3.940163	0.022910	Reject Null		

V. DATA ANALYSIS

12Average Traded volume5.3457853.940162520.022910Reject Null13Total Traded Volume5.3457853.9401630.022910Reject NullAnalysis: In case of FII share, as the F calculated value (2.999005) is less than F critical (3.940163) at 5% level of significance (F < F critical) we, cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. In case of Market Capitalisation as the F value is more than F critical (3.938111078) at 5% level of significance (F > F critical) we can reject the null hypothesis which states that there is a significant difference in the means of institutional ownership holdings of small and large size firms are more neglected by the null hypothesis of small firms are more neglected by institutional investors than those of large firms. In case of Market Capitalisation as the F value is more than F critical (3.938111078) at 5% level of significance (F > F critical) we can reject the null hypothesis which states that there is a significant difference in the means of institutional ownership holdings of small and large size firms are more neglected

by institutional investors than those of large firms. Among the various measures tested, for PBIT/Net Sales, the F value is 0.000435. As the F value is less than F critical (3.940163) at 5% level of significance (F < F critical) we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms.

In case of Assets turnover ratios of Nifty senior and Nifty Junior stocks the F value is 0.003578. Which is less than F critical (3.940163) at 5% level of significance (F < F). Therefore, we cannot reject the null hypothesis and which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms.

For Return on Capital employed, the F value is 0.41430651. As the F value is less than F critical (3.94016252) once again we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. In case of debt equity ratio, the F value is1.7813995. As the F value is less than F critical (3.94016253) at 5% level of significance we, cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. In case of large firms are more neglected by institutional investors than those of large firms. In case of large firms are more neglected by institutional investors than those of large firms. In case of Interest Coverage Ratio, the F value is1.35659064 and the F value is less than F critical (3.94016252). Therefore we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. When it comes to the current ration, the F value is1.35659064 which is less than F critical (3.94016252) at conventional 5% level of significance. Therefore we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. When it comes to the current ration, the F value is1.35659064 which is less than F critical (3.94016252) at conventional 5% level of significance. Therefo

When it comes to DIV/PAT Ratio, the F value is 1.38140467 which is less than F critical (3.94016252) at 5% level of significance (F < F critical). Therefore we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. For BV/Adj. Closing Price, the F value is 2.5137974 which is less than F critical (3.94016252). Therefore we cannot reject the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms.

holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms. When it comes to EPS/Adj. Closing Price, the F valueis3.14792309 which is less than F critical (3.94016252) at 5% level of significance. Therefore accept the null hypothesis which states that there is no significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms.

Among the various measures tested, for Average traded volume, the F value is 5.3457850. As the F value is more than F critical (3.94016252) at 5% level of significance (F > F critical). Therefore accept the hypothesis which states that there is a significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms.

Another proxy taken for the purpose of the study was the Total traded volume, for this we have the F value of 5.3457850 which is more than F critical (3.94016252). Therefore accept the hypothesis which states that there is a significant difference in the means of institutional ownership holdings of small and large size firms and also it is found that stocks of small firms are more neglected by institutional investors than those of large firms.

The Kruskal-Wallis test is used to test the statistically significant differences between below variables.

Sl. No	Factor	K(Observed value)	K (Critical	P-value	Accept / Reject
			value)		
01	FII	1.900	3.841	0.168	Accept Null
02	Market Capitalization	41.7255	3.8415	0.0001	Reject Null
03	PBIT/NET Sales	1.061	3.841	0.303	Accept Null
04	Asset turnover ratio	0.044	3.841	0.834	Accept Null
05	PBIT/Capital Employed	1.450	3.841	0.228	Accept Null
06	Debt Equity ratio	1.011	3.841	0.315	Accept Null
07	Interest Coverage Ratio	1.766	3.841	0.184	Accept Null
08	Current ratio	0.515	3.841	0.473	Accept Null
09	DIV/PAT	0.185	3.841	0.667	Accept Null
10	BV/Adj Closing price	0.934	3.841	0.334	Accept Null
11	EPS/Adj Closing price	3.233	3.841	0.072	Accept Null
12	Average Traded volume	4.650	3.841	0.031	Reject Null
13	Total Traded Volume	4.805	3.841	0.028	Reject Null

**TABLE No: 4.2 Table** Showing K-W Test Statistics between Nifty Senior and Nifty Junior

**Analysis:** It is evident from the above table that for FIIs inflow the K (Observed value) is less than K (Critical value), (Ko<Kc) at 0.168level of significance (set level is 0.05). Hence we cannot reject the Null Hypothesis. In case of Market capitalisation, the K (Observed value) 41.7255 which is more than K (Critical value) (Ko>Kc) at 3.8415. Hence we can reject the null hypothesis.

For PBIT/Net Sales the K (Observed value) is less than K (Critical value) (Ko<Kc) with a p value of 0.303. Therefore, we cannot reject the Null Hypothesis. For assets turnover ratio the K (Observed value) is less than K (Critical value) (Ko<Kc) at 0.834 level of significance (set level is 0.05). Hence we cannot reject the Null Hypothesis.

In case of PBIT/Capital Employed the K (Observed value) (1.450) which is less than K (Critical value) (Ko<Kc) at 0.228 level of significance (set level is 0.05). Hence do not reject the Null Hypothesis. However, for debt equity ratio, the K (Observed value) (1.011) which is less than K (Critical value) (Ko<Kc) at 3.841 level of significance (set level is 0.05). Hence we cannot reject the Null Hypothesis.

In case of Interest coverage ratio, the K (Observed value) (1.766) is less than K (Critical value) (Ko<Kc) at 3.841 level of significance (set level is 0.05). Hence we cannot reject the Null Hypothesis. In case of current ratio, the K (Observed value) (0.515) is less than K (Critical value) (Ko<Kc) at 3.841 with a p value of 0.473. Therefore, we cannot reject the Null Hypothesis.

In case of Div/PAT ratio, the K (Observed value) (0.185) is less than K (Critical value) (Ko<Kc) at 3.841 with a p value of 0.667. Hence we cannot reject the Null Hypothesis. However, for BV/Adj Closing Price the K (Observed value) (0.934) which is less than K (Critical value) (Ko<Kc) at 3.841 with a p value of 0.334. Hence we cannot reject the Null Hypothesis. Similarly for EPS/Adj Closing price the K (Observed value) (3.233) is less than K (Critical value) (Ko<Kc) at 3.841 with a p value of 0.031. Therefore, we cannot reject the Null Hypothesis. For the second factor (total traded volume) It is evident from the above table that the K (Observed value)(4.805) is less than K (Critical value) (Ko>Kc) at 3.841 with a p value of 0.028. Hence we cannot reject the Null Hypothesis.

#### VI. DISCUSSION AND CONCLUSION

The current study entitled "Size effect in Indian stock market with special reference to CNX Nifty Senior and Nifty Junior has been undertaken to understand the FIIs investment pattern in Indian stock market with reference to Nifty senior and Nifty junior. In order to realise the stated objectives the researchers shortlisted thirteen key parameters namely EBIT/ Capital employed, Debt Equity ratio, Interest coverage ratio, Current ratio, Dividend/PAT, BV/Adj Closing Price, EPS/ ADJ CLOSING PRICE, 365 traded volume and 365 days average traded volume. The collected data has been tested by using one way Anova (parametric) and Kruskal-Wallis test (Non parametric test).

Anova results revealed that, in case of FII share, as the F calculated value is less than F critical at conventional level of 5% therefore, we cannot reject the null hypothesis. Even KW results also revealed the same results with a p value of 0.168. Hence we cannot reject the Null Hypothesis. In case of Market Capitalisation as the F value is more than F critical at 5% level of significance. Therefore, in this case we can reject the null hypothesis. However, KW results we reject the null hypothesis at 0.0001. For PBIT/Net Sales, as the F value is less than F critical value at 5% level of significance (F < F critical) we cannot reject the null hypothesis. However, KW results also revealed the similar results with a p value of 0.303. Therefore, we cannot reject the Null Hypothesis for PBIT/Net Sales. In case of Assets turnover ratios the F value is less than F critical at 5% level of significance (F < F). Therefore, we cannot reject the null hypothesis. Even KW test results also gave away the same results at 0.834 level of significance (set level is 0.05). Hence we cannot reject the Null Hypothesis. The Anova results for Return on Capital employed, as the F value is less than F critical, once again we cannot reject the null hypothesis. In case of PBIT/Capital Employed the null hypothesis have been accepted at 0.228 level of significance. In case of debt equity ratio, the Anova results indicated that, there is no significant difference in the means of institutional ownership holdings of small and large size firms. Even KW results also supported this view by accepting the null hypothesis at a p value of 0.315. Another important ration taken for the purpose of the study was the Interest Coverage Ratio, once again we accept the null hypothesis. Even KW test results also indicated the same results that is we accepted the null Hypothesis with a p value of 0.184. The Anova results relating to the current ratio, indicated the rejection of alternative hypothesis. However, KW results also revealed the similar findings that is the acceptance of H1 with a p value of 0.473. When it comes to DIV/PAT Ratio, the F value less than the critical value therefore, once again we cannot reject the null hypothesis. In case of KW test results the K value is less than K Critical value with a p value of 0.667. Therefore, we cannot reject the null hypothesis.

For BV/Adj Closing Price, the F value is less than F critical indicating the rejection of alternative hypothesis. However, KW test results indicated the rejection of alternative hypothesis for BV/Adj Closing Priceas the K Observed value is less than K Critical value with a p value of 0.334. When it comes to EPS/Adj Closing Price, once again the F value is less than F critical indicating the rejection of alternative hypothesis, similarly for EPS/Adj Closing price the KW test results accepts the Null Hypothesis with a p value of 0.072.

The Anova results for Average Traded volume indicated that the rejection of Null hypothesis with a p value of 0.022910 and KW test results too reject the null hypothesis with a p value of 0.031. the last parameter taken for the purpose of the study was Total Traded Volume, rejected the null hypothesis with a p value of 0.022910 and even the KW test results also gave the similar verdict of rejection of Null hypothesis with a p value of 0.028. The study revealed that there is no significance difference between Nifty Junior and Nifty senior stock indices in all parameters other than Market capitalization, Average Traded volume and Total traded volume. This clearly shows that the nifty junior stocks are neglected stocks it is only the mind set of FII's that is making all the difference. The stocks of small firms are significantly less liquid and more neglected by foreign institutional investors than those of large firms. Small firms have low operating profitability and higher financial leverage (as revealed by debt equity ratio). Moreover small firms are highly distressed firms as shown by their high book equity to market equity ratio. The study shows that the small firms differ from large firms owing to risk characteristics reflected by the following five measures average daily trading volume, institutional neglect, book equity to market equity ratio. Debt equity ratio. And operating profit ratio dealing with another efficiency-related issue, one should not be surprised by this paper's findings which are consistent with some of the previous studies and inconsistent with others. Hence, the implications to market efficiency remain open for future research. This study examines the postulation that firm size acts as a mere proxy for neglect effect. In particular, the main question is whether the size effect documented in the early empirical literature can be consistently solely attributed (over time and in magnitude) to neglected small stocks having less public information (i.e., pursued less by financial analysts) available to uninformed (usually small) investors. The study shows that the small firms differ from large firms owing to risk characteristics reflected by the following five measures average daily trading volume, institutional neglect, book equity to market equity ratio, debt equity ratio. And operating profit ratio. The current study has confirmed size effect in the Indian stock market on the basis various ratios taken up for the study for example debt equity ratio, NP Ratio, Total Assets Turnover ratio, M Cap etc. On the other hand, a constant

level of size effect was confirmed based on the three major key indicators viz. Market capitalization ratio, Average Traded volume and Total traded volume (only in these ratios it is observed that there is a significance difference between Nifty Senior and Junior Stocks). Since it was only the mind-set of the FII's that differentiated the Nifty junior and senior, it is advisable for the portfolio managers to identify key Nifty junior stocks to construct a well-balanced and diversified portfolio and to earn abnormal returns as Nifty Junior stocks were neglected stocks from the perspective of FII's. Same rule is applicable to Brokers', Broker's role is to making of the market by suggesting their clients when to buy, hold and sell the stocks. They can give better call to their clients based on the above observations. Even the investors can also employ the same strategy that is advisable for them to buy these neglected stocks to earn superior returns.

#### REFERENCES

- [1]. Agarwal, Chakrabarti et al (2003) have found in their research that the equity return has a significant and positive impact on the FII.
- [2]. Agarwal, R.N. (1997). "Foreign portfolio investment in some developing countries: A study of determinants and macroeconomic impact", Indian Economic Review, Vol. 32, Issue 2, pages 217-229.
- [3]. Altman, E,I. (1968), Financial Ratios, Discriminant Analysis and the Prediction of Corporate Bankruptcy, Journal of Finance, 23(4), 589-610.
- [4]. Altman, E,I. (1973), Predicting Railroad Bankruptcies in America, Bell Journal of Economics and Management Science, 4(1), 184-212.
- [5]. Altman, E,I., McGough, T,P. (1974), Evaluation of a Company as a Going Concern, Journal of Accountancy, 138(6), 50-58.
- [6]. Anand Bansal, & J. S. Pasricha (2009), Foreign Institutional Investors Impact on Stock Prices in India. Journal of Academics Research in Economics, 1(2), 181-189
- [7]. Ariel, R (1987) A Monthly Effect on Stock Returns, Journal of Financial Economics, 18, 161-174.
- [8]. Atkins, M. H., & Lowe, J. F. (1997). Sizing up the Small Firm: UK and Australian Experience, International Small Business Journal, (15)3, 42-55.
- Banerjee, A., & Sarkar, S. (2006). Modelling Daily Volatility of the Indian Stock Market Using Intra-day Data. IIM Calcutta, WPS No. 588/March.
- [10]. Bansal. A & J. S. Pasricha, Foreign Institutional Investors Impact on Stock Prices in India. Journal of Academics Research in Economics, 1(2), 181-189. 2009.
- [11]. Banz, R. W. (1981). The relationship between return and market value of common stocks. *Journal of financial economics*, 9(1), 3-18.
- [12]. Barry, C. B., & Brown, S. J. (1984). Differential information and the small firm effect. *Journal of Financial Economics*, *13*(2), 283-294.
- [13]. Bashir Ahmad Joo&Zahoor Ahmad Mir (2014). "Impact of FIIs Investment on Volatility of Indian Stock Market: An Empirical Investigation". Journal of Business & Economic Policy. Vol. 1, No. 2; December, pp. 106-114.
- [14]. Batra, A (2004) "Foreign Institutional Investors: An Introduction", Icfai University Press, pages-107-111
- [15]. Batra, A. (2003). The Dynamic of Foreign Portfolio Inflows and Equity Returns in India. Working Paper, ICRIER, New Delhi.
- [16]. Battacharya, B., & Mukherjee, J. (2005). An Analysis of Stock Market Efficiency in the Light of Capital Inflows and Exchange Rate Movements: The Indian Context., http://www.igidr.ac.in/money/An%20Analysis%20of%20Sock%20Market%20Efficiency...Bas.
- [17]. Berk, J. B. (1995). A critique of size-related anomalies. Review of Financial Studies, 8(2), 275-286.
- [18]. Bird, R. and D. Juttner, (1975) "The Financing of Small Business in the Manufacturing Sector," Research Paper No. 69, Macquarie University School of Economic and Financial Studies, January.
- [19]. Bohra, N. Singh and Dutt, Akash.(2011) 'Foreign Institutional Investment in Indian Capital Market: A Study of Last One Decade'. International Research Journal of Finance and Economics, Retrieved 24 Jan. 2012
- [20]. Borensztein, J., De Gregorio, J., & Lee, J. (1998). How Does Foreign Direct Investment Affect Economic Growth? Journal of International Economics, 35, 115-135.
- [21]. Chakrabarti, Rajesh. (2001). "FII Flows to India: Nature and Causes." Money and Finance "Vol. 2, No. 7, October-December, pages 61-81.
- [22]. Christie, A. A., &Hertzel, M. (1981). Capital Asset Pricing" anomalies": Size and Other Correlations. Publisher not identified.
- [23]. Chung, K.H. (1993), Asset Characteristics and Corporate Debt Policy: An Empirical Investigation, Journal of Business Finance and Accounting, 20(1), 83-98.
- [24]. Cook, T. J., &Rozeff, M. S. (1984). Size and earnings/price ratio anomalies: one effect or two? *Journal of Financial and Quantitative Analysis*, 19(4), 449-466.
- [25]. Deakin, E.B. (1972), A Discriminant Analysis of Predictors of Business Failure, Journal of Accounting Research, 10(1), 167-180.
- [26]. Devdatt J. Vyas & Manoj D. Shah (2016). Determinants of foreign institutional investors' investment and its effect on Sensex movement- a quarterly appraisal. Commerce. Volume: 2 | Issue: 4, April, pp., 113-115.
- [27]. Douma, S., Kabir, R. and Rejie, G. (2006). "Foreign and domestic ownership, business groups and firm performance-Evidence from large emerging market", Strategic Management Journal, Vol. 27, No. 7, pp. 637-657.
- [28]. Dyl, E. and Maberly, E., "The Weekly Pattern in Stock Index Futures: A Further Note", Journal of Finance, 41 No: 5, 1986.
- [29]. Edmister, R.O. (1972), "An Empirical Test of Financial Ratio Analysis for Small Business Failure Prediction", Journal of Financial and Quantitative Analysis, 7(2), 1477-1494.
- [30]. Ernest W. Walker and J. William Petty, (1978). "Financial Differences between Large and Small Firms". Financial Management Vol. 7, No. 4 (winter), pp. 61-68
- [31]. Fieldsend, S., Longford, N., & McLeay S. (1987). Industry effects and the proportionality: Variance component analysis. Journal of Business Finance and Accounting, 497-517.
- [32]. Gordon, J. and Gupta, P. (2003). "Portfolio Flows into India: Do Domestic Fundamentals Matter?" IMF Working Paper, Number WP/03/02.
- [33]. Haugen, R & Jorion, P (1996) "The January Effect: Still Here after All These Years". Financial Analysts Journal (January-February): 27-31.
- [34]. HemkantKulshrestha (2014). Impact of foreign institutional investors (FIIs) on Indian capital market. International Journal of Research in Business Management. Vol. 2, Issue 3, March, 35-52
- [35]. Jasneek Arora &Santhosh Kumar (2015). "Impact of Foreign Institutional Investors on Indian Capital Market". Pacific Business Review International. Volume 8 issue 6 December, pp17-23.

- [36]. Johnson Andreas "The Effects of FDI Inflows on Host Country Economic Growth", 2004.
- [37]. Kaur, Manjinder. & Dhillon, S.Sharanjit (2010) 'Determinants of Foreign Institutional Investor's Investment in India' Eurasian Journal of Business and Economics 2010, 3 (6), 57-70.
- [38]. Keirn, D.B., (1983), "Size Related Anomalies and Stock Return Seasonality: Further Empirical Evidence", Journal of Financial Economics, Vol. 12, pp. 13-32.
- [39]. Kim, E. H., &Singal, V. (1993). Opening up of Stock Markets by Emerging Economies: Effects on Portfolio Flows and Volatility of Stock Prices in Portfolio Investment in Developing Countries. World Bank Discussion Paper No.228 Ed. By StijnClaessens and SudarshanGooptu (Washington: World Bank, 1993), 383-403.
- [40]. Kishore C. Samal, "Economic and Political Weekly, Vol. 32, No. 42 (Oct. 18-24, 1997)"
- [41]. Kumar, S. (2001). 'Does the Indian Stock Market Play to the tune of FII Investments? An Empirical Investigation'. ICFAI Journal of Applied Finance 7 (3): 36-44.
- [42]. Kumar, S.S. 2002 "Indian stock market in international diversification: An FIIs perspective" Indian Journal of Economics, Vol, Ixxxii, No-327, April, pages 85-102.
- [43]. Lambert, C., (1984). "A Finance Gap for Small Business in Australia," The Australian Accountant, August, pp. 548-552.
- [44]. Loomba, J. (2012). Do FIIs Impact Volatility of Indian Stock Market? International Journal of Marketing, Financial Services & Management Research, 1(7), 80-93.
- [45]. Loomba, Jatinder. (2012) 'Do FIIs Impact Volatility of Indian Stock Market?' International Journal of Marketing, Financial Services & Management Research Vol.1 Issue 7.
- [46]. Mansfield, E., Rapoport, J., Schnee, J., Wagner, S. and Hamburger, M. (1971) Research and Innovation in the Modern Corporation, New York: Norton.
- [47]. Namita Rajput. Parul Chopra and Ajay Rajput (2012). "FII and Its Impact on Stock Market: A Study on Lead-Lag and Volatility Spillover". Asian Journal of Finance & Accounting, Vol. 4, No. 2, pp. 18-38.
- [48]. Nooteboom, B. (1994) 'Innovation and Diffusion in Small Firms: Theory and Evidence', Small Business Economics, Vol. 6, pp327-347
- [49]. Osteryoung, J., Constand, R. L., & Nast, Donald, D. (1992). Financial ratios in large public and small private firms. Journal of Small Business Management, 30 (3), 35-46.
- [50]. Poghosyan, T., Čihák, M. (2009), Distress in European Banks: An Analysis Based on a New Data Set, Conference on the Financial Crisis, 7-8 May, Barcelona.
- [51]. Porwal, A. K., & Gupta, R. (2005). The Stock Market Volatility. The Journal Accounting and Finance, 20(1), 31-44.
- [52]. Poshakwale, Sunil. &Thapa, Chandra. (2007). 'Impact of foreign Portfolio investments on market investment market co movements: Evidence from the Emerging Indian stock market.' presented in the Emerging Market Group ESRC Seminar on International Equity Markets Comovements and Contagion 11 May 2007 Cass Business School, London
- [53]. Prasanna, P.K (2008), Foreign Institutional Investors: Investment preferences in India, Journal of Administration and Governance, Vol. 3, No-3, pp. 40-51.
- [54]. Rai. K. and Bhanumurthy, N.R. (2003). "Determinants of Foreign Institutional Investments in India: The Role of Return, Risk and Inflation". The developing Economies. Vol. 42, pp. 461-547.
- [55]. Rao (1999): "On the dynamic relation between stock prices and FIIs" Journal: Journal of ICFAI, Vol. 25.
- [56]. Roll, R. (1981). A possible explanation of the small firm effect. The Journal of Finance, 36(4), 879-888.
- [57]. Rothwell, R. and Dodgson, M. (1994) 'Innovation and Size of Firm', in The Handbook of Industrial Innovation, Editors M. Dodgson and R. Rothwell, Aldershot Hants: Edward Elgar, pp. 310-324.
- [58]. S. lakshmy (2014). "A Study of the Impact of FII on the Sectorial market Indices". Journal of Commerce & Accounting Research. Volume 3 Issue 3 July, pp. 43-48.
- [59]. SanjanaJuneja (2013). "Understanding the Relation between FII and Stock Market". International Journal of Commerce, Business and Management (IJCBM), Vol. 2, No.6, December, pp. 328-334.
- [60]. Santosh Chauhan (2013). "Impact of foreign capital inflows on Indian stock market". Asian Journal of Marketing & Management Research. Vol.2 Issue 3-4, March-April, pp. 79-90.
- [61]. Sehgal, S., & Tripathi, V. (2005). Size effect in Indian stock market: Some empirical evidence. Vision, 9(4), 27-42.
- [62]. Shrikanth, Maram and Kishore Braj (2012) 'Net FII Flows into India: A Cause and Effect Study' ASCI Journal of management, Vol. 41 (2), pp. 107-12.
- [63]. Shukla, K. Rajeev et al (2011) 'FII Equity Investment and Indian Capital Market: An Empirical Investigation.' Pacific business review international.
- [64]. Simon, R. (1976). Administrative Behaviour, 3rd Edition, the Free Press, US.
- [65]. Siva Prasad Dr. K. Hari Hara Raju (2014). Impact of foreign institutional investors on Indian equity market. AMET International Journal of Management, July – Dec, pp. 14-23.
- [66]. Sultana, S. T., & Pardhasaradhi, S. (2012). Impact of Flow of FDI and FII on Indian Stock Market. Finance Research, 1(3). 1(3).
- [67]. Trewartha, G., (1982). "A 'Finance Gap' in Victorian Country-Based Small Businesses," in Small Business Research, W. Dunlop and W. Sheehan, W. (Eds), Institute of Industrial Economics, University of Newcastle, pp. 171-182.
- [68]. Trivedi and Nair (2005), "Recent Volatility in Stock Markets in India and ForeignInstitutionalInvestors."2004, http://www.icrier.org/pdf/wp124.pdf
- [69]. Upadhyay, S. (2006). Portfolio Organizer. FIIs in the Stock Market and the Question of Volatility, 22-30.
- [70]. Upneja, Arun; Kim, Hyunjoon; and Singh, Amrik (2000). "Differences in Financial Characteristics between Small and Large Firms: An Empirical Examination of the Casino Industry," *Journal of Hospitality Financial Management:* Vol. 8: Issue. 1, Article 8.
- [71]. Walker, E. W., & Petty, J. W., 11. (1978). Financial differences between large and small firms, Financial Management, 61-68

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