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DYNAMICS OF STOCK EXCHANGE: AN EMPIRICAL STUDY ON SEMI-ROBUST MARKET POTENCY OF CNX NIFTY AND SECTORAL INDICES OF NATIONAL STOCK EXCHANGE

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ABSTRACT

The ideas of Market Potency confer with the market costs replicate all obtainable relevant information. if the market area unit is economical, than all information is already incorporates into cost and then there are no thanks to beat the market as a result of there aren't any below or over-valued securities obtainable Market potency was developed in 1970 by social scientist Eugene Fama whose theory of economic Market Hypothesis (EMH) expressed its out of the question for associate capitalist to outdo the market which market anomalies mustn't exist as a result of they will straight off be arbitrage away.

Fama later won the award for his efforts. Investors World Health organization trust this theory tend to shop for index funds that track overall market performance and area unit proponent of passive portfolio management. Investors and lecturers have a good vary of read purpose on the particular potency of the market as mirrored within the robust (strong), Semi-Robust (Semi strong) and weak versions of the Efficient market hypothesis. Believers that the market is powerful area unit people who trust the FAMA and sometimes carriers with it passive index investors. The main objective of the study is to look at the behaviour of stock price within the Indian Stock market once the introduction of the varied sectors of selected NSE Market in India Victimization totally different methodologies. The objective of the study square is measured as follows. To analyse the stock prices of CNX Nifty and sectoral Indices in National Stock Market of India. To examine the relationship between selected sectors in NSE Market. To study the cause and effect relationship between the sectoral Indices in NSE market. To investigate the Semi robust variety of market potency in National Stock Market. The study is an empirical research for which Semi Robust form of market potency of CNX Nifty and Sectoral Indices of National Stock Exchange of India are tested. The current study investigates the relationship, Co-Integration, cause and effect, relationship, semi-robust market potency and volatility among the NIFTY and Sectoral Indices of National Stock Exchange. Finally the study concludes with all the sectoral indices with CNX NIFTY the stock market potency are tested. It showed that the Indian Stock Market is not potency in Semi-Strong Form. NSE Sectoral Indices helps the investors to identify the leading sectors like Finance, FMCG, Media, Metal, Pharma and Realty which have semi-robust market potency. It will help the investors to earn more abnormal profits in the long run and put an effort in favour of a shift to dynamic business environment where one can manage risk and earn even above normal profits at least at present time. Hence it provides an opportunity to the traders for predicting the future prices, shares and stock turnover for earning more profits on these sectors. From this the investors and portfolio managers can decide their trading strategy based on the sectoral indices to change their dynamic business environment.

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INTRODUCTION

The ideas of Market Potency confer with the market costs replicate all obtainable relevant information. if the market area unit is economical, than all information is already incorporates into cost and then there are no thanks to beat the market as a result of there aren't any below or over-valued securities obtainable Market potency was developed in 1970 by social scientist Eugene Fama whose theory of economic Market Hypothesis (EMH) expressed its out of the question for associate capitalist to outdo the market which market anomalies

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unit people who trust the FAMA and sometimes carriers with it passive index investors.

The efficient market hypothesis (EMH) may be a theory in money social science that states that quality costs absolutely replicate all out there info an on the spot implication that's not possible to beat the market systematically on a risk adjusted basis since market costs ought to solely react to new info. The economical Market Hypothesis was developed by Eugene Fama United Nations Agency argued that stock or sell stocks for inflated costs. Associated in Nursing it ought to be not possible to surmount the market through skilled stock choice or market temporal arrangement which the sole method an capitalist will probably acquire higher returns in inadvertently o by getting risker investment investments. Here the study being conducted on 2012 with Kenneth French supported this read, showing the distribution of abnormal returns folks mutual funds is extremely just like what would be expected if no fund manager had any talent it is a necessary condition for the EMH to Carry. There are square measure 3 variants of the hypothesis: "Weak, Semi-strong and strong" type. The weak style of EMH claims that a value on listed assets example stocks, bonds or property already reflects all past in public out there info. The second type is semi robust style of the EMH claims each of the costs replicate all in public out there details which prices instantly replicate new public info.

The third type is powerful style of the EMH to boot claims that costs instantly replicate even hidden info. There is no quantitative live of market potency and testing the concept is troublesome. Thus referred to as effect studies offer a number of the most effective proof however they are hospitable alternative interpretations. Critics have everlasting the idea in rational markets for a lot of late-2000s money crisis. The proponents of the hypothesis have started the market potency doesn't mean and not having any uncertainty concerning the long run, the Market Potency may be a simplification of the planet which cannot continually ends up in hold verity and also the market is much economical fr investment functions of most of the people.

Statement of the problem

Market potency is employed to clarify the link between quantum of knowledge and its impact within the costs of securities and exchange literature. The integration of capital markets, new areas of research have emerged on particular interest is global investing, where portfolio managers are seeking opportunities for investing across countries for maximising investment returns. Yet, without the means for diversifying risks these efforts would be futile.

Several challenges for fund managers include increased global competition, attractive emerging markets, huge cross border transfer of investable funds, mysterious primary and derivative products and knowledgeable investors to name a few. To face all these defiance and ensure the efficiency of markets, they need to increase active dynamic strategies. It is indispensable that the risk return characteristics of promising markets are ascertained.

Efficiency of market system enables minimization of risk through tactful use of derivatives, thus maximizing returns. Hence, appropriate use of derivative products will be

instrumental in attaining market efficiency, which would diversify the risk in all possible ways. Thus the present study is made to analyses the market potency and dynamic relation between CNX Nifty and Sectoral Indices of National Stock Exchange. With the above niche, the researcher framed the following questions.

- What is the relationship among the chosen sectors of NSE Market in India?
- What are the prevailing fluctuations among the chosen sectors of NSE Market in India?
- Is there any co-integration among the designated sectors of NSE Market in India?
- Is there's any prevailing conditions of Semi robust market potency from the chosen sectors in NSE India?

Objectives of the Study

The main objective of the study is to look at the behaviour of stock price within the Indian Stock market once the introduction of the varied sectors of selected NSE Market in India Victimization totally different methodologies. The objective of the study square is measured as follows.

1. To examine the relationship between selected sectors in NSE Market.
2. To investigate the Semi robust variety of market potency in National Stock Market.

Hypotheses for the study

1. **H₀₁**: There is no Co-Integration among the NIFTY and Sectoral Indices of National Stock Exchange.
2. **H₀₂**: There is no Semi Robust form of Market Efficiency in National Stock Exchange.

RESEARCH METHODOLOGY

The study

The study is an empirical research for which Semi Robust form of market potency of CNX Nifty and Sectoral Indices of National Stock Exchange of India are tested. The current study investigates the relationship, Co-Integration, cause and effect, relationship, semi-robust market potency and volatility among the NIFTY and Sectoral Indices of National Stock Exchange.

Selection of Sample

To represent the Stock market in India National Stock Exchange is taken for the study and it is a major barometer in Indian Stock Market. It pictures 11 sectoral indices of National Stock Exchange as variables taken for the study. The selected Sectoral Indices for the study are CNX NIFTY, NSE Auto, NSE FMCG, NSE Bank, NSE Media, NSE FS, NSE IT, NSE Pharma, NSE PB, NSE Metal, NSE PSU and NSE Realty that have been taken for the study.

Source of data

This is an empirical attempt made on the basis of CNX NIFTY and Sectoral Indices of National Stock Exchange in India. The data is secondary in nature for the study. Daily series data collected and 1654 number of observations has been found for the study and data have been collected from National Stock Exchange official websites, articles and journals.

Period of the Study

The study is carried out with aggregate monthly time series data for the period of 6 years-eight months i.e. from January 2012 to August 2018 have been taken for the study period.

Sampling Technique

The National Stock exchange consist of four major categories namely Broad Indices, Sectoral Indices, Thematic Indices and Strategy Indices. From this, the researcher has purposively selected the Sectoral Indices for the study. Hence the purposive sampling technique is adopted for this study. The sectoral Indices of National Stock Exchange of India are as follows

- NSE Automobile sector.
- NSE Fast Moving Consumer Goods sector.
- NSE Bank sector.
- NSE Media Sector.
- NSE Financial Services sector.
- NSE Information Technology sector.
- NSE Private Bank sector.
- NSE Public sector Undertakings sector.
- NSE Pharmaceutical sector.
- NSE Metal sector
- NSE Realty sector.

Tools Used For the Study

To analyse the results, to find the relationship Johansen co-integration being used. To check the turnover difference in past and public information of Semi Strong of Efficient Market Hypothesis T-Test is used as Cumulative Average Abnormal Returns are the tools used for the study.

Scope of the Study

The present study empirically explores market efficiency, co-integration and dynamic relationship between CNX Nifty and sectoral Indices of National Stock Exchange, so as to guide investors to make innovative investments opportunities by managing their portfolio in a dynamic business environment.

Significance of the Study

An efficient and integrated stock market is an important infrastructure that influences capital formation and strengthens the capital market in a dynamic business environment. Stock Market potency is a necessary condition for the economic efficiency as the stock prices provide signals for igniting thoughts of investors about the profitability of investments opportunities in different stock market indices leading to a paradigm change in a vibrant business environment. Thus this study will be beneficial for the policy makers, academicians and information seekers undoubtedly.

Limitations of the Study

- The study is based on secondary data and it is limited to a period of 6 years and 8 months
- It is only focused on CNX Nifty and Sectoral Indices of National Stock Exchange.
- There are many Indicators in National Stock Exchange. But the study has focused only on the selected sectors influencing the Market Potency.

- A quite number of parameters have been used by the researcher to evaluate the efficiency of Market potency.

Akbar and Baig (2010), using the standard event study methodology. Their study includes 129 cash dividends announcements, 24 stock dividend announcements and 40 simultaneous cash and stock dividend announcements are statistically insignificant. Further, the findings show that average abnormal returns and cumulative average abnormal returns for stock dividend and simultaneous cash and stock dividend announcements are statistically significant in before and after the announcement day and therefore reject the hypothesis that the Karachi stock exchange is efficient in its semi strong form.

Rajesh (2010) examined the impact of changes in market micro structure on market quality through security speed of adjustment co-efficient using ARIMA estimator. The study did not find significant difference in the speed of adjustment co-efficient of small and large capitalization stocks.

Raja M., SudhaharJ.Clement, Selvam M. (2010), made an attempt to empirically examine the efficiency of the Indian Stock Market with respect to Information Content of Bonus issue announcement released by the IT Companies over the period 2000 to 2007. Statistical tools used under the study in order to test the informational efficiency of the Indian Stock Market were Average Security Returns Variability, Average Abnormal Returns, Cumulative Abnormal Returns and T-test. The study concludes that the Indian stock markets for the IT Companies are efficient but not perfectly efficient to the bonus issue announcement.

SaqibNisar and Muhammad Hanif (2011) employed run test, serial correlation, unit root test and variance test ration to examine the weak form of efficient market hypothesis on the four major stock exchange of South Asia including India, Pakistan, Bangladesh and Sri Lanka. Historical Index values on a monthly, weekly and daily basis for a period of 14 years (1997-2011) were used for analysis. It is concluded that none of the four major stock markets of South Asia follows Random Walk and hence all these markets are not the weak form of efficient market.

Prithul Chakraborty (2011) the study aims to examine whether the Indian stock market is pricing efficient in its semi-strong form such examination is made in the context of the price reaction to the announces of stock splits witnessed by 17 constituent stock of S&P CNX Nifty during the period from February 2000 to January 2010 by application of the market model of the event study methodology, these results support the semi-strong form of pricing efficiency of the market.

Kaur and Ray (2011), found the evidence of positive abnormal returns around the announcement of stock splits and therefore drew the inference that the Indian Stock Market was pricing inefficient in its semi-strong form as the investors could make abnormal returns around the stock split announcements.

Pathirawasam and Idirisinghe(2011), find evidence to confirm the short term return predictability so that the weak form efficient market hypothesis is rejected. Moreover consistent with the findings of FAMA and French (1988) and Porterba and summers (1988), the studies by Samarakoon (1998, 2004)

find evidence of long run predictability of return and mean reverting stock price behaviour on the CSE, thus strongly reject that the CSE is efficient in its weak form.

Abeysekera (2011) examines the stock price behaviour in order to determine whether this weak form efficiency is supported in respect of Sri Lankan capital market. The evidence of his research does not support this hypothesis as his findings show that daily, weekly and monthly index data are serially dependent.

Campbell and Ohuocha (2011) also observe inefficiencies in the market. Their study is based on 99 number of stock dividend announcements in Nigerian Stock Market from 2002 to 2006. Further, based on the trading frequency, these announcements have grouped stocks into two groups, more actively traded stocks and less actively positive (negative) for more actively (less actively) traded stocks and cumulative abnormal returns both before and after the announcements day are statistically significant in both groups of stocks. This result suggests the violation of semi-strong form of market efficiency in the Nigerian stock market. In addition, based on the result and considering the characteristic of the market, they suggest that these abnormalities may be due to information leakage than the market's prior anticipation.

Renuka Sharma (2012) conducted a study on information efficiency of Indian stock Market by using the data of earnings announcements and annual dividend earnings announcements and annual dividend announcements for 133 companies. As a result, study considered a total of 1417 events composing of 229 quarterly earnings announcements made in the month of April in each year and 1188 annual cash dividend announcement. Study was conducted in 3 phases first phase July 1991 to March 2000, second phase, April 2000 to March 2003, third phase April 2003 to December 2007. She has concluded the stock prices immediately get adjusted to the information regarding the earnings announcements and no investors can attain abnormal returns near the earnings announcements which show the market is efficient in semi strong form.

Azeem Ahmad Khan (2012) the objective of the study is to test the efficiency of the Indian stock market with respect to the announcement of mergers and acquisition in Indian banking sector employing the standard risk adjusted event study methodology. The study proved that Indian stock market shows that the market efficient in its semi strong form as both the historical and publically available information.

M.E.NareshBabu (2013) the study focuses on the aspect how far the Indian Stock market is efficient and reveals the form of efficiency. Efficient Market Hypothesis counters the fundamental analysis and technical analysis. Fundamental analysis feel that the prices of the shares can be expected with the analysis of certain factors such as Economy, Industry and company. This study focuses on the aspect how far the Indian stock market is efficient and reveals the form of efficiency this study reveals that the Indian cement industry is efficient in weak form.

Prof.Dr.S.Rajamohan and M.Muthukumar (2014) "Bank Nifty Index and other sectoral indices of NSE-A comparative study intended to know the nature and extent of influence by banking

sector with other sector during the bull and bear market phase. It concluded that the Bank Nifty index is positively influencing almost all the recommended that before making any investments in equity market, the investing community must look the behavioural pattern of banking sector stocks as they influence the behaviour of the other sector stock.

Research Gap

Many studies have been conducted for analysing CNX NIFTY and Sectoral Indices of National Stock Exchange. But the researcher couldn't conduct the analysis on market potency in CNX Nifty and Sectoral Indices and how their efficiency in market, relationship, shares traded and volatility of Sectoral Indices. Therefore the Researcher selected CNX NIFTY and 11 Sectoral Indices in NSE on the basis of market efficiency namely NSE Auto, NSE FMCG, NSE Bank, NSE Media, NSE FS, NSE IT, NSE PB, NSE Pharma, NSE Metal, NSE PSU and NSE Realty.

Johansen Co-Integration Test

Johansen Co-Integration analysis is a statistical analysis used for time series data for determining long run relationship between two or more variables. It is done to identify the integration among the variables. After finding the stationarity of the variable the upcoming process is to identify the integration among the variables. There are two types of Co-Integration techniques it is (Engle and Granger) 1987. This test helps to indicate the integration among the variables based on trace and Maximum Eigen value of Statistics.

H₀: There is No Co-Integration among the NIFTY and Sectoral Indices of National Stock Exchange.

Co-Integration Test (trace) of CNXNIFTY and Sectoral Indices of National Stock Exchange from 2012 to 2018

Trace test indicates 12 co-integrating eqn(s) at the 0.05 level *denotes rejections of the hypothesis at the 0.05level **Mackinnon-Haug- Michelis (1999) p-value

Johansen Co-Integration Test (Maximum Eigen Value) of CNXNIFTY and Sectoral Indices of National Stock Exchange from 2012 to 2018

Hypothesized No. of Ce(s)	Eigen Value	Max-Eigen Statistic	0.05 Critical Value	Prob**
None*	0.237411	446.9394	76.57843	0.0001
At most 1*	0.225766	421.9261	70.53513	0.0001
At most 2*	0.198955	365.8115	64.50472	0.0001
At most 3*	0.197065	361.9251	58.43354	0.0000
At most 4*	0.190799	349.1064	52.36261	0.0001
At most 5*	0.183268	333.8311	46.23142	0.0000
At most 6*	0.169999	307.2560	40.07757	0.0001
At most 7*	0.163391	294.1789	33.87687	0.0001
At most 8*	0.153659	275.1076	27.58434	0.0001
At most 9*	0.148168	264.4434	21.13162	0.0001
At most 10*	0.142755	253.9987	14.26460	0.0001
At most 11*	0.124303	218.8804	3.841466	0.0000

Hypothesized No. of CE(s)	Eigen Value	Trace Statistics	0.05Critical value	Prob**
None*	0.237411	3893.405	334.9837	1.0000
At most 1*	0.225756	3446.465	285.1425	0.0000
At most 2*	0.198955	3024.539	239.2354	1.0000
At most 3*	0.197065	2658.728	197.3709	1.0000
At most 4*	0.190799	2296.802	159.5927	1.0000
At most 5*	0.183268	1947.696	125.6154	1.0000
At most 6*	0.169999	1613.865	95.75366	1.0000
At most 7*	0.163391	1306.609	69.81889	1.0000
At most 8*	0.153659	1012.430	47.85613	0.0001
At most 9*	0.148168	737.3225	29.79707	0.0001
At most 10*	0.142755	472.8791	15.49471	0.0001
At most 11*	0.124303	218.8804	3.841466	0.0000

Trace test indicates 12 Co-integrating eqn(s) at the 0.05 level denotes rejections of the hypothesis at the 0.05 level ** Mackinnon-Haug-Michelis (1999) p-value

The table indicates the Johansen Co-Integration Test (Trace) which shows that the probability value of discussed variables for the study is greater than 0.05 for all the sectors and table 4.15, Johansen Co-Integration test (maximum Eigen Value). The variable for study period from 2012 to 2018. In this table, the maximum Eigen Value is greater than the critical value for all the twelve variables. Hence the null hypothesis indicates that there is Co-Integration among the CNX NIFTY and 11 Sectoral Indices of National Stock Exchange is rejected. It indicates that the variables are Co- Integrated with each other. Thus the analysis clearly pictures that these variables have long term relationship and equilibrium with each other and will move together in long run.

To investigate the Semi robust variety of market potency in National Stock Market

One Sample T-Test

A T-test may be a variety of inferential statistics that is employed to work out if there's a major distinction between the means that of 2 teams which can be connected in sure options. It is principally used once the information sets just like the set of knowledge recorded as outcome from flipping a coin once 100 times, would follow a traditional distribution and should have unknown variances.

T-test is employed as a hypotheses testing tool that permits testing of associate assumption applicable to a population. A T-test appearance at the t- statistics, the T-distribution values and also the degree of freedoms to work out the likelihood of distinction between 2 sets of knowledge, to conduct a take a look at with 3 or additional variable one should use associate analysis of variance.

The one sample T- test determines whether or not the sample means is statistically totally different from an illustrious or hypothesized population mean. The one sample t-test could be a constant that is additionally illustrious as single sample t check. The variable employed in this check is thought as: test variable in a one sample t check, the check variables is compared against a test value, that could be an illustrious or hypothesized price of the mean within the population.

H₀: There is no Semi Strong form of Market Efficiency in National Stock Exchange.

One sample T-test for the variables CNX NIFTY and NSE AUTO from the year 2012 to 2018

One-Sample Test						
Test Value = 0						
	T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nseauto	120.767	1654	.000	7608.04601	7484.4827	7731.6094

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE Auto is being calculated. The t-value for CNX NIFTY is 171.95 and for NSE Auto it is 120.767. The sig (2 tailed) value is .000. Thus there is no significant value between CNX Nifty an NSE Auto. So, there is no past and public information is available in Semi robust form of Market Potency. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

One sample T-Test for the CNX NIFTY and NSE FMCG from the year 2012 to 2018

One-Sample Test						
Test Value = 0						
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsefmcg	168.923	1654	.000	19800.52172	19570.6145	20030.4290

Source: compiled and calculated

Interpretation

The given table interprets the significant level of 0.05% between CNX NIFTY and FMCG. The calculated t value of CNX Nifty is 171.95 and for NSE FMCG is 168.92. The level of significance is 0.05 and the calculated sig (2 tailed) value is .000. Thus there's no significant relationship between CNX NIFTY and NSE FMCG.Hence, there is no past and public information is available in Semi robust form of Market Potency. So the P Value is smaller than 0.05 thus null hypotheses is rejected.

One Sample T-test for CNX NIFTY and BANK from the year 2012-2018

One-Sample Test						
Test Value = 0						
	t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsebank	128.190	1654	.000	16885.01943	16626.6656	17143.3733

Source: Compiled & Calculated

Interpretation

From the given table the significance level of 0.05% between the variables of CNX Nifty and NSE Bank is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE Bank it is 128.190. The sig (2 tailed) value is .000. Thus there is no significant value between CNX Nifty and NSE Bank. So, there is no past and public information is available in Semi robust form of Market Potency. The p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and MEDIA from the year 2012-2018

One-Sample Test						
Test Value = 0						
t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsemedia	140.800	1654	.000	2266.21024	2234.6411	2297.7794

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE Media is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE Media it is 140.800. The sig (2 tailed) value is .000. Thus there is no significant value between CNX Nifty and NSE Media. So, there is no past and public information is available in Semi robust form of Market Potency. The p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and FS from the year 2012-2018

One-Sample Test						
Test Value = 0						
T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsefs	124.048	1654	.000	7268.14708	7153.2257	7383.0685

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE FS is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE FS it is 124.048. The sig (2 tailed) value is .000. Thus there is no significant value between CNX Nifty and NSE FS. So, there is no past and public information is available in Semi robust form of Market Potency. The p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and IT from the year 2012-2018

One-Sample Test						
Test Value = 0						
t	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nseit	172.010	1654	.000	10043.41743	9928.8945	10157.9404

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE IT is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE IT are 172.010. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between CNX Nifty and NSE IT. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and NSE PHARMA from the year 2012-2018

One-Sample Test						
Test Value = 0						
T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsepharma	145.195	1654	.000	9191.41360	9067.2496	9315.5776

Source: Compiled & Calculated

Interpretation

From the given table 4.23, the significance level of 0.05% between the variables of CNX Nifty and NSE Pharma is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE Pharma are 145.195. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between CNX Nifty and NSE Pharma. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected and the past and public information is available.

One Sample T-test for CNX NIFTY and NSE PB from the year 2012-2018

One-Sample Test						
Test Value = 0						
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsepb	106.707	1654	.000	9458.14770	9284.2957	9631.9997

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE PB is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE PB are 106.707. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between CNX Nifty and NSE PB. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and NSE METAL from the year 2012-2018

One-Sample Test						
Test Value = 0						
T	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsemetal	182.232	1654	.000	2701.52819	2672.4511	2730.6053

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE Metal is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE Metal are 182.232. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between

CNX Nifty and NSE Metal. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and NSE PSU from the year 2012-2018

One-Sample Test						
Test Value = 0						
t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nsepsu	242.769	1654	.000	3048.50640	3023.8766	3073.1362

Source: Compiled & Calculated

Interpretation

From the given table 4.26, the significance level of 0.05% between the variables of CNX Nifty and NSE PSU is being calculated. The T-value for CNX NIFTY is 171.950 and for NSE PSU are 242.769. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between CNX Nifty and NSE PSU. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

One Sample T-test for CNX NIFTY and NSE REALTY from the year 2012-2018

One-Sample Test						
Test Value = 0						
T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference		
				Lower	Upper	
Cnxnifty	171.950	1654	.000	7982.682	7891.63	8073.74
Nserealty	25.617	1654	.000	644.74556	595.3799	694.1112

Source: Compiled & Calculated

Interpretation

From the given table, the significance level of 0.05% between the variables of CNX Nifty and NSE REALTY is being calculated. The t-value for CNX NIFTY is 171.950 and for NSE PSU are 242.769. The sig (2 tailed) value is .000. So, there is no past and public information is available in Semi robust form of Market Potency. Thus there is no significant value between CNX Nifty and NSE REALTY. Hence the p value is smaller than 0.05 therefore null hypotheses is rejected.

Suggestions

The suggestions based on the findings are

- The study provides the strong evidence that some of the selected sectors are not efficient in semi robust form, so that their values can be manipulated. There exists more chance for the speculative activities in the markets. So it is advisable to the policy makers to reform the training system for the benefits of the investors.
- CNX Nifty and sectoral Indices of National stock Exchange are not semi strong efficient which indirectly implies that the Indian Stock Market is not efficient in semi-strong form. This provides an opportunity for the traders to decide their trading strategy for predicting the future prices and earning abnormal profits on the basis of past historical data.

- The study provides evidence that the diversification benefits in Indian sectoral Indices are enormous. So that the policy makers, portfolio managers and investors could benefit if they analyse the Indian Stock market using fundamental and technical analysis.
- Generally, stock markets are the barometer of the economy the results can also help to examine the overall economic situation and the existence of problems in the financial systems. Hence the results of the present study help to take wiser investments decisions.
- The NSE Sectoral analysis helps the investors to identify the leading sectors Finance, FMCG, Media, Metal, Pharma and Realty. It will help the investors to earn more abnormal profits in the long run and put an effort in favour of a shift to dynamic business environment where one can manage risk and earn even above normal profits at least at present time.

CONCLUSION

The present study provides an empirical analysis on testing stock market potency between CNX NIFTY and Sectoral Indices of National Stock Exchange for the period of six years eight months from January 2012- August 2018 taking daily observations. The Indian domestic investors construct their portfolios which include the indices are co-integrated with each other. At the same time they have directional relationship with CNX NIFTY. The results determines the leading sectors which include NSE AUTO, NSE FMCG, NSE BANK, NSE MEDIA, NSE IT, NSE FS, NSE PB, NSE PSU, NSE PHARMA, NSE METAL, NSE REALTY. All the sectoral indices with CNX NIFTY the stock market potency are tested. It showed that the Indian Stock Market is not potency in Semi-Strong Form. NSE Sectoral Indices helps the investors to identify the leading sectors like Finance, FMCG, Media, Metal, Pharma and Realty which have semi-robust market potency. It will help the investors to earn more abnormal profits in the long run and put an effort in favour of a shift to dynamic business environment where one can manage risk and earn even above normal profits at least at present time. Hence it provides an opportunity to the traders for predicting the future prices, shares and stock turnover for earning more profits on these sectors. From this the investors and portfolio managers can decide their trading strategy based on the sectoral indices to change their dynamic business environment.

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1. Kaur and Ray (2011), found the evidence of positive abnormal returns around the announcement of stock splits and therefore drew the inference that the Indian

- Stock Market was pricing inefficient in its semi-strong form as the investors could make abnormal returns around the stock split announcements.
2. Pathirawasam and Idirisinghe(2011), find evidence to confirm the short term return predictability so that the war form efficient market hypothesis is rejected. Moreover consistent with the findings of FAMA and French (1988) and Porterba and summers (1988), the studies by Samarakoon (1998,2004) find evidence of long run predictability of return and mean reverting stock price behaviour on the CSE, thus strongly reject that the CSE is efficient in its weak form.
 3. Abeysekera (2011) examines the stock price behaviour in order to determine whether this weak form efficiency is supported in respect of Sri Lankan capital market. The evidence of his research does not support this hypothesis as his findings show that daily, weekly and monthly index data are serially dependent.
 4. Campbell and Ohuocha (2011) also observe inefficiencies in the market. Their study is based on 99 number of stock dividend announcements in Nigerian Stock Market from 2002 to 2006. Further, based on the trading frequency, these announcements have grouped stocks into two groups, more actively traded stocks and less actively positive (negative) for more actively (less actively) traded stocks and cumulative abnormal returns both before and after the announcements day are statistically significant in both groups of stocks. This result suggests the violation of semi-strong form of market efficiency in the Nigerian stock market. In addition, based on the result and considering the characteristic of the market, they suggest that these abnormalities may be due to information leakage than the market's prior anticipation.
 5. Renuka Sharma(2012) conducted a study on information efficiency of Indian stock Market by using the data of earnings announcements and annual dividend earnings announcements and annual dividend announcements for 133 companies. As a result, study considered a total of 1417 events composing of 229 quarterly earnings announcements made in the month of April in each year and 1188 annual cash dividend announcement. Study was conducted in 3 phases first phase July 1991 to March 2000, second phase, April 2000 to March 2003, third phase April 2003 to December 2007. She has concluded the stock prices immediately get adjusted to the information regarding the earnings announcements and no investors can attain abnormal returns near the earnings announcements which show the market is efficient in semi strong form.
 6. Azeem Ahmad Khan (2012) the objective of the study is to test the efficiency of the Indian stock market with respect to the announcement of mergers and acquisition in Indian banking sector employing the standard risk adjusted event study methodology. The study proved that Indian stock market shows that the market efficient in its semi strong form as both the historical and publically available information.
 7. M.E.NareshBabu (2013) the study focuses on the aspect how far the Indian Stock market is efficient and reveals the form of efficiency. Efficient Market Hypothesis counters the fundamental analysis and technical analysis. Fundamental analysis feel that the prices of the shares can be expected with the analysis of certain factors such as Economy, Industry and company. This study focuses on the aspect how far the Indian stock market is efficient and reveals the form of efficiency this study reveals that the Indian cement industry is efficient in weak form.
 8. Prof.Dr.S.Rajamohan and M.Muthukumar (2014) "Bank Nifty Index and other sectoral indices of NSE-A comparative study intended to know the nature and extent of influence by banking sector with other sector during the bull and bear market phase. It concluded that the Bank Nifty index is positively influencing almost all the recommended that before making any investments in equity market, the investing community must look the behavioural pattern of banking sector stocks as they influence the behaviour of the other sector stock.

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