Journal Homepage: -www.journalijar.com
INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)
ISSN NO. 2320-5407
Article DOI:10.21474/IJAR01/2144
DOI URL: http://dx.doi.org/10.21474/IJAR01/2144

RESEARCH ARTICLE

EXAMINING RELATIONSHIP BETWEEN NIFTY 50 AND SELECTED SHARES IN NSE.

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Manuscript Info

Manuscript History

Received: 25 September 2016
Final Accepted: 27 October 2016
Published: November 2016

Key words:-
Index, Market capitalization, Nifty, NSE, Stock Market.

Abstract

A stock market index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. Stock market indexes are meant to capture the overall behaviour of equity markets. The Nifty 50 is a well diversified 50 stock index. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds. The objective of this paper is to examine the Nifty 50 associated with selected securities in NSE. The author has taken the data from 02-Jan-2012 to 09-Sep-2016 (1164 observations) and studied the correlation coefficient to establish relationship between the Nifty 50 and selected shares in NSE.

Introduction:-

The National Stock Exchange (NSE) is India's leading stock exchange covering various cities and towns across the country. NSE was set up by leading institutions to provide a modern, fully automated screen-based trading system with national reach. The Exchange has brought about unparalleled transparency, speed & efficiency, safety and market integrity. It has set up facilities that serve as a model for the securities industry in terms of systems, practices and procedures.

NSE has played a catalytic role in reforming the Indian securities market in terms of microstructure, market practices and trading volumes. The market today uses state-of-art information technology to provide an efficient and transparent trading, clearing and settlement mechanism, and has witnessed several innovations in products & services viz. demutualisation of stock exchange governance, screen based trading, compression of settlement cycles, dematerialisation and electronic transfer of securities, securities lending and borrowing, professionalisation of trading members, fine-tuned risk management systems, emergence of clearing corporations to assume counterparty risks, market of debt and derivative instruments and intensive use of information technology. A stock market index is a measure of the relative value of a group of stocks in numerical terms. As the stocks within an index change value, the index value changes. An index is important to measure the performance of investments against a relevant market index.The Nifty 50 is a well diversified 50 stock index accounting for 13 sectors of the economy. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds.

Nifty 50 is owned and managed by India Index Services and Products Ltd. (IISL). IISL is India's first specialised company focused upon the index as a core product.The Nifty 50 Index represents about 65% of the free float market capitalization of the stocks listed on NSE as on March 31, 2016.

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The total traded value of Nifty 50 index constituents for the last six months ending March 2016 is approximately 46% of the traded value of all stocks on the NSE.Impact cost of the Nifty 50 for a portfolio size of Rs.50 lakhs is 0.04% for the month March 2016.Nifty 50 is professionally maintained and is ideal for derivatives trading.From June 26, 2009, Nifty 50 is computed based on free float methodology.

Review of literature:-

Babu, M., &Hariharan, C. (2014). Investigated the volatility in the Indian stock market. There are twelve sectoral indices in NSE of which five indices, namely, CNX AUTO, CNX BANK, CNX FINANCE, CNX IT, and CNX PHARMA were selected for analysing the volatility of sectoral indices. The criterion for selecting the sample indices was the turn over during the study period from January 2009 to December 2013.

Rajamohan, S., &Muthukamu, M. (2014). An attempt is made in this study to know the nature Pearson correlation coefficient technique is applied to find the nature and extent of influence by banking sector with other sectors and it was found that there is a positive correlation between banking stock index and most of the other sectoral stock indices.

Dr.G.Shanmugasundram and D.John Benedict (2013) made an attempt to provide an empirical support to identify the risk factors in sectoral indices and CNX Nifty index and also to see the risk relationship in different time intervals. The indices selected for the study are CNX Nifty index, CNX Auto index, CNX Bank index, CNX FMCG index, CNX Infrastructure index and CNX Information Technology index for the period from 01/01/2004 to 30/04/2012. Two sample T-Test and One – way ANOVA between subjects has been used to identify the risk factor difference across the risk of sectoral indices and CNX Nifty index.

Chittedi, K. R. (2011). Examined the stock indices of the developed countries with relation to India for a period of 10 years (1 October 1997-1 October, 2007) out the integration between them. For this purpose, Unit Roots, Granger Causality, co-integration and Error correction Mechanism are used. To examine the short-run and long-run relationships between India and the developing counties. The study found that co integration existing between India and developed countries. (USA, UK, Japan, France and Australia).

Siddiqui, S. (2008). Studied that due to globalization, economic integration among countries and their financial markets is evident. The interdependency between Indian and other European stock markets has also increased. This paper examines the relationships between selected European stock markets and SENSEX. It covers closing data of nine stock markets to investigate.

Objectives of the study:-

The objective of the study is to find out the nature and extent of relationship between Nifty 50 and selected shares in NSE (from 02-Jan-2012 to 09-Sep-2016) (1164 observations).

Methodology:-

The data required for the study is collected from secondary source. Secondary data for thepresent study has been collected from NSE and money control websites. The selected shares for this study are top four market capitalization companies in NSE in India as on 09-09-2016. The closing prices of the Nifty 50 and selected shares from 02-Jan-2012 to 09-Sep-2016(1164 observations) have been collected from NSE.Data was analysed through Karl Pearson's Correlation Coefficient Method.

Table: 1 Top four market capitalization companies in NSE (as on 09-09-2016)

Company Name	Market Cap(Rs. cr)
TCS	463,533.32
Reliance	338,742.50
HDFC Bank	327,561.65
ITC	312,533.12

Source: www.moneycontrol.com

Hypothesis of the study:-
H_0: There is no significant relationship between Nifty 50 and selected shares.
Ha: There is a significant relationship between Nifty 50 and selected shares.

Data analysis:-
A Pearson product-moment correlation was run to determine the relationship between Nifty 50 and HDFC Bank. There was a very high positive correlation of 0.936between Nifty 50 and HDFC Bank and which was statistically significant (r = .936, n = 1164, p = .000). Whereas for Nifty 50 and TCS there was a very high positive correlation of 0.922 and which was also statistically significant(r = .922, n = 1164, p = .000).

Table: 2 Correlations

		NIFTY 50	TCS	Reliance	HDFC Bank	ITC
NIFTY 50	Pearson Correlation	1	.922**	.755**	.936**	.576**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	1164	1164	1164	1164	1164
TCS	Pearson Correlation	.922**	1	.749**	.850**	.667**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	1164	1164	1164	1164	1164
Reliance	Pearson Correlation	.755**	.749**	1	.727**	.505**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	1164	1164	1164	1164	1164
HDFC Bank	Pearson Correlation	.936**	.850**	.727**	1	.444**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	1164	1164	1164	1164	1164
ITC	Pearson Correlation	.576**	.667**	.505**	.444**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	1164	1164	1164	1164	1164
Infosys	Pearson Correlation	-.418**	-.267**	-.245**	-.661**	.094**
	Sig. (2-tailed)	.000	.000	.000	.000	.001
	N	1164	1164	1164	1164	1164

Source: Secondary data

With respect to Nifty 50 and Reliancethere was a strong, positive correlation and which was statistically significant (r = .755, n = 1164, p = .000).Similarly for Nifty 50 and ITCthere was a moderate, positive correlation and which was statistically significant (r = .576, n = 1164, p = .000).

Conclusion:-
A stock market index is created by selecting a group of stocks that are representative of the whole market or a specified sector or segment of the market. Stock market indexes are meant to capture the overall behaviour of equity markets. The Nifty 50 is a well diversified 50 stock index. It is used for a variety of purposes such as benchmarking fund portfolios, index based derivatives and index funds.There is a strong positive correlation between Nifty 50 and HDFC Bank, TCS, Reliancewhereas for Nifty 50 and ITC it is a moderate positive correlation.

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