THINK INDIA JOURNAL

ISSN:0971-1260
Vol-22- Issue-35-December-2019

Efficient Market Hypothesis of Indian Capital Markets – A Study

Authors
Kalpana .V
Ph.D. Research Scholar,
Department of Management Studies,
Urumu Dhanalakshmi College, Tiruchirappalli, Tamil Nadu.
&
Dr. M. Chandrasekaran
Director, Department of Management,
Dhanalakshmi Srinivasan College of Arts and Science for Women,
Perambalur, Tamil Nadu.

Abstract

The objective of this study is to study the efficiency of Indian stock markets during the period 2014-2018. The weak form of efficient markets is extensively tested using NIFTY and 6 major NSE sectoral indices Pharma, IT, MNC, Bank, FMCG and Nifty Junior. Univariate time series analysis of indices returns is carried using correlation statistical test. The study concludes that Indian markets are inefficient in its weak form for the study period.

Key words: Efficient market, efficient market hypothesis, Auto correlation test

Introduction

In an efficient market where everyone has equal access to information, the price of a share can impound information quickly and accurately. With a gradual flow of new information in an efficient market characterised by instantaneous price adjustment, successive price changes are random. Efficiency Market Hypothesis (EMH) is an important theory in terms of the understanding of the equity markets and the cost of equity capital. In terms of capital market theory, the conception of market efficiency is used to explain the degree to which stock prices reflect available, relevant information in a timely manner. The efficient market hypothesis is related to the random walk theory. There are three levels of efficiency: weak, semi-strong and strong form. These forms of efficient market depend upon the information set and its relation to prices. If the information set is historical prices, the market is its weak form. Weak form says that current price of a stock reflects all information found in the record of past prices and volumes. Therefore, technical analysis cannot be used to predict and beat a market. Information set of all public information (annual earnings, stock split etc.) leads to semi-strong form of efficient markets. The semi-strong form holds that stock prices rapidly adjust to all publicly available information. Event study and portfolio studies are used to test semi-strong form of market efficiency. This means neither fundamental nor technical analysis can be used to achieve superior returns. Lastly, if the information set is insider information the market is said to be in its strong form. The strong form holds that all available information public or private is reflected in stock prices. This is an extreme form of the hypothesis and there is no empirical evidence to support it. This means even insider information cannot give an investor any advantage.

Efficiency of equity markets has important implications for the investment policy of the investors. If the equity market in question is efficient researching to find miss-priced assets will be a waste of time. In an efficient market, prices of the assets will reflect market's best estimate for the risk and expected return of the asset, taking

ISSN:0971-1260
Vol-22- Issue-35-December-2019

into account what is known about the asset at the time. Therefore, there will be no undervalued assets offering higher than expected return or overvalued assets offering lower than the expected return. All assets will be appropriately priced in the market offering optimal reward to risk. However, if the markets were not efficient, an investor will be better off trying to spot winners and losers in the market and correct identification of miss-priced assets will enhance the overall performance of the portfolio.

The understanding of efficiency of the emerging markets is becoming more important as a consequence of integration with more developed markets and free movement of investments across national boundaries. India is one of the fastest growing emerging economies in the world. At this transitional stage, it is necessary to assess the level of efficiency of the Indian equity market in order to establish its longer term role in the process of economic development.

Reviews of literature

Hiremath & Kamaiah (2010) find that the Indian stock markets are weak form efficient but not all the time. Their tests showed that CNX Nifty Junior, CNX 500, CNX Bank Nifty, BSE 500, BSE Midcap and BSE Small cap reject the random walk hypothesis and return series are characterized by the presence of linear dependencies. Patrick, A & Sushama, R. (2011) have compared the weak form of efficiency of NSE and NYSE and has presented the evidence of efficient form of NSE and inefficient form of NYSE. From autocorrelation analysis and runs test it was concluded that the series of stock indices of NSE is unbiased random time series whereas stock indices of NYSE is biased random time series. More recently, R. Rajesh Ram Kumar (2012) have analysed the market efficiency of sectoral indices of BSE, India and found that the returns of 8 indices out of 12 Indices, namely, BSE Automobile Index, BSE Bankex, BSE Capital Goods Index, BSE Consumer Durables Index, BSE Health Care Index, BSE Metal Index, BSE PSU Index, and BSE Realty Index followed normal distribution and earned better return at 5 percent significant level.

Objectives of the study

- To analyse whether the Indian equity markets are weak form efficient.
- To test the weak form efficiency of the different sectoral indices of NSE.

Data analysis

S.No	Particulars	r Values 2014-15 to 2015-16	r Values 2016-17 to 2017-18
1	HDFC Bank	0.2203	0.5424
2	Reliance	0.008	0.6533
3	Housing Development	-0.2149	0.1672
4	ICICI Bank	-0.7602	0.3627
5	Infosys	-0.6534	-0.3738
6	Tata Consultancy	0.0661	0.3883
7	ITC Limited	-0.6436	-0.1829
8	Kodak Mahindra	-0.1055	0.5476
9	Larsson & Toubro	-0.1821	0.1447
10	Axis Bank	-0.2824	0.2401
11	Hindustan Unilever	0.1577	0.9225
12	SBI	-0.8858	0.0806
13	Maruti Suzuki	0.9169	-0.671
14	Bajaj Finance	0.9276	0.7544

ISSN:0971-1260
Vol-22- Issue-35-December-2019

15	Asian Paints	0.2533	0.7689
16	Indusind Bank	-0.1872	-0.1776
17	Bharti Airtel	0.3897	0.1628
18	HCL	-0.2026	-0.1399
19	Mahindra & Mahindra	0.0049	0.277
20	Titan Company	-0.6319	0.1756
21	Nestle India	-0.6278	0.8115
22	NTPC Ltd.,	-0.6458	-0.5292
23	Bajaj Finserv	0.9276	0.7544
24	Sun Pharma	0.5163	-0.3376
25	Power Grid Corp.Ltd	-0.7873	-0.3031
26	Tech Mahindra	-0.2413	0.0152
27	Oil & Natural Gas	-0.7833	0.2061
28	Ultra Tech Cement	-0.3588	-0.5956
29	Bajaj Auto	0.4499	-0.4494
30	Bharat Petroleum	0.83	-0.6817
31	Britannia Industry	0.7062	0.6526
32	Wipro Limited	0.0557	0.5103
33	Coal India Limited	0.0519	0.4959
34	Indian Oil	0.8787	-0.2903
35	Hero Motors Corps Ltd.,	-0.5486	-0.7234
36	Dr. Reddys Lab	0.0658	-0.5383
37	UPL Ltd.,	0.3952	-0.6685
38	Tata Motors	-0.9549	0.0861
39	Adani Ports	-0.5262	-0.6393
40	Eicher Motors	0.31	-0.5454
41	Grasim Industries	-0.5478	-0.6517
42	Tata Steel	-0.8225	-0.6616
43	Hindalco Industries Ltd.	-0.9696	-0.4224
44	Vedanta Ltd.,	-0.9374	-0.668
45	GAIL India Ltd.,	-0.4177	0.115
46	Cipla Ltd.,	0.1122	0.0161
47	JSW Steel	-0.4505	0.4721
48	Bharti Infrated	0.1462	-0.8739
49	Zee Entertainment	0.5536	-0.5317
50	Yes Bank	-0.7429	-0.0896

Conclusions

The test results state that Indian markets are not weak form efficient. These results support the common notion that the equity markets in the emerging economies are not efficient and to some degree can also explain the less optimal allocation of portfolios into these markets. The implication of rejection of weak form efficiency for investors is that passive index investment strategy shall not be suitable while investing in the Indian stock market. On the other hand as financial market development have significant benefits on economic growth, the regulators and policy makers should pay much more attention on the market efficiency of India's stock market. These policies may assist in deepening the markets and further improve the market efficiency in the future.

ISSN:0971-1260
Vol-22- Issue-35-December-2019

References

- Bodie. Z, Kane. A & Marcus. A.J (2009). Investments. Singapore: McGraw Hill.
- Damodar N. Gujarati & Sangeetha. (2007). Basic Econometrics. McGraw-Hill.
- Fama, E. (May, 1970). Efficient Capital Markets: A review of theory and empirical work. The Journal of Finance. Volume 25, Issue 2.
- Fama, E. (1976). Efficient Capital Markets: Reply. The Journal of Finance. Volume 31, No. 1, pp. 143-145.
- Fama, E. (December, 1991). Efficient Capital Markets. The Journal of Finance. Volume XLVI, No.5.
- Hiremath, G S & Kamaiah, B. (May, 2010). Some Further Evidence on the Behaviour of Stock Returns in India. International Journal of Economics and Finance. Vol. 2, No. 2 p. 157.
- Patrick, A & Sushama, R. (December, 2011). Efficiency of Stock Markets - Comparing the Behaviour Of Stock Indices of NSE And NYSE. International Journal of Multidisciplinary Research. Vol.1 Issue 8, ISSN 22315780.
- Poshakwale, S. (1996).Evidence on Weak Form of Efficiency and the Day of the Week Effect in the Indian Stock Market. Finance India, Volume X, Number 3.
- Ramkumar, R. Et al. (2012). An Analysis of Market Efficiency in Sectoral Indices: A Study with a Special Reference to Bombay Stock Exchange in India. European Journal of Scientific Research. ISSN 1450-216X Vol.69 No.2 (2012), pp. 290-297.
- Reilly and Brown (2006). Investment Analysis and Portfolio Management. New Delhi: Cengage Learning