# GFJMR July-December 2021 Vol 23 (1) pp. 31-41 ©2021 FMS-Canpat University

# Understanding the Relationship between Investor Trading Strategies and Returns around Earnings Announcements

### Nirali Rathod

Research Scholar, Faculty of Management, Ganpat University, Mehsana, India nrr02@ganpatuniversity.ac.in

#### **Abhishek Parikh**

Professor, Faculty of Management, Ganpat University, Mehsana, India

#### Varun Solanki

MBA Student, Ganpat University, Mehsana, India

#### Prajapati Isha

MBA Student, Ganpat University, Mehsana, India

## Shah Parth

MBA Student, Ganpat University, Mehsana, India

#### Shukal Heli

MBA Student, Ganpat University, Mehsana, India

# Abstract

In the context of the secondary market of India, this article explores the link between financial success and stock performance. The purpose of this study is to see if a company's financial performance affects company's share prices and if there are any differences in share prices between small-cap and large-cap enterprises. To do this, a complete study of historical financial data and related stock returns of a group of companies trading on the Indian stock exchange is performed. To assess the impact of financial performance indicators on stock returns, various financial performance indicators such as profitability, liquidity, and solvency are assessed.

The research investigates the linked relationship between financial performance and stock returns using CAPM Model and statistical approaches such as regression analysis and hypothesis testing. The findings will offer light on the factors that determine the stock markets outcomes in secondary market of India, as well as the impact of financial performance on investor decision-making. The study's findings have significance for investors, financial analysts, and legislators since they can inform investment strategies, company financial planning, and regulatory actions. Understanding the relationships between financial performance and stock returns is essential for making sound investing decisions and achieving optimal portfolio performance.

*Keywords:* Financial performance, Stock returns, Indian stock market, CAPM \_\_\_\_\_

#### **1 INTRODUCTION**

The secondary market's major function is to provide finance and equity to firms. By issuing new shares on the primary market, companies can raise more funds for new capital. Among the world's 23 trading exchanges, the Indian stock exchange is the fastest expanding. With approximately 1016 enterprises and 726 trading members, one of the largest and most advanced exchanges. The NSE Stock Exchange can handle around 6 million trades per day with these current tools (Marisetty, N. (2011, October).

The issue is determining how to more appropriately price the stock. The CAPM is a model for evaluating financial assets that has been in use since 1960. The model believes that just one component, market risk, can explain an asset's projected return, and that the market rewards investors depending on the level of market risk provided by their investment. Sharpe & Lintner built on Markowitz's work to create this model. However, the researchers rapidly discovered flaws in the model.

Considering its severe shortcomings, the CPAM model is nevertheless often used by businesses to assess the cost of capital and portfolio evaluation. According to earlier studies, this strategy is used by around 45% of European enterprises. Rather than providing empirical data on the utilization of the single-factor CAPM model in the Indian stock market, the primary purpose of the paper is to demonstrate how to test it by selecting fifty stocks from diverse industries traded on the Indian Stock Exchange.

#### 1.1 How is NIFTY 50 calculated?

Originally, the Nifty 50 was determined using the total market capitalisation. However, the Nifty 50 has been decided on the basis of free-float market capitalization since June 26, 2009 (Marisetty, N. (2011, October). This means that the equity held by the promoters of these 50 companies is not included in the Nifty 50 computations. This is because these equities are not openly traded.

#### 1.2 Single-Factor CAPM Model

In 1965 Sharpe & Lintner created the CAPM in accordance with Markowitz's work. The CAPM model forecasts uncertain asset returns and provides a tool for contrasting benchmark returns on upcoming investments. As a result, the model is used to anticipate expected returns on assets that have yet to be traded on the market.





### **2 LITERATURE REVIEW**

The CAPM builds on the model of portfolio choice developed by Markowitz (1952). In this model, an investor selects a portfolio at time t - 1, and the portfolio produces a stochastic return at time t. The main assumptions of the model are:

- Investors are risk adverse
- When choosing among portfolios, investors care only about the mean and variance of their one-period investment returns.

On this basis, investors choose 'mean-variance efficient' portfolios. In other words, they choose portfolios that,

- 1. minimise the variance of the portfolio return, given the expected return;
- 2. maximise the expected return, given the variance.

The portfolio model provides an algebraic condition on asset weights in mean-variance efficient portfolios. The CAPM transforms this algebraic declaration into a testable prediction regarding the relationship between risk and expected return by identifying a portfolio that must be efficient if asset prices are to clear the market for all assets.

Early tests of the CAPM showed that higher stock returns were generally associated with higher betas. These findings were taken as evidence in support of the CAPM, while findings that contradicted the CAPM as a fully adequate model of asset pricing did not discourage enthusiasm for the model. Miller and Scholes (1972), Black et al. (1972) and Fama and MacBeth (1973) also demonstrated a clear relationship between beta and asset return outcomes. Nevertheless, the returns on stocks with higher betas are systematically less than predicted by the CAPM, while those of stocks with lower betas are systematically higher. In response, Black (1972) proposed a two-factor model (with loadings on the market and a zero-beta portfolio).

Sharpe (1964) and Lintner (1965) add two key assumptions to the Markowitz model to identify a portfolio that must be mean-variance efficient. "First, we assume a common pure rate of interest, with all investors able to borrow or lend funds on equal terms. Second, we assume homogeneity of investor expectations: investors are assumed to agree on the prospects of various investments – the expected values, standard deviations and correlation coefficients (previous) described" [Sharpe, (1964), pp.433–434]. Fama and French (2004) have described portfolio opportunities and told the CAPM story (Figure 1). The vertical axis shows expected return, and the horizontal axis shows portfolio risk, measured by the standard deviation of portfolio returns. The curve abc is the minimum variance frontier. It represents combinations of expected return and risk for portfolios of risky assets that minimise return variance at different levels of expected return. The trade-off between risk and expected return for minimum variance portfolios is apparent.

An investor who wants a high expected return (point a) must accept high volatility. At point T, the investor can have an intermediate expected return with lower volatility. If there is no risk-free borrowing or lending, only portfolios above b along abc are mean-variance efficient. Adding risk-free borrowing and lending turns the efficient set into a straight line. Consider a portfolio that invests the proportion x of portfolio funds in a risk-free security and 1 - x in some portfolio g. If all funds are invested in the risk-free security, the result is the point Rf. This is a portfolio characterised by a risk-free rate of return and no variance. Combinations of risk-free lending and positive investment in g plot on the straight line between Rf and g. Points to the right of g on the line represent borrowing at the risk-free rate: "In short, portfolios that combine risk-free lending or borrowing with some risky portfolio g plot along a straight line from Rf through g" [Fama and French, (2004), p.27].

To obtain the mean-variance efficient portfolios available with risk-free borrowing and lending, one swings a line from Rf up and to the left as far as possible, to the tangency portfolio T: all efficient portfolios are

combinations of the risk-free asset and a single risky tangency portfolio, T (Fama and French, 2004).

This result is defined by Tobin's (1958) separation theorem. The punch line of the CAPM is now straightforward. With complete agreement about distributions of returns, all investors see the same opportunity set and combine the same risky tangency portfolio with risk-free lending or borrowing. Because all investors hold the same portfolio T of risky assets, it must be the value-weighted market portfolio of risky assets. More specifically, each risky asset's weight in the tangency portfolio must be the total market value of all outstanding units of the asset divided by the total market value of all risky assets.

In finance theory, the CAPM has been categorized into single CAPM and multiple CAPM (Lintner, 1965; Douglas, 1969). Early studies focused on individual securities and their relationship between risk and return, but the results were not favourable. Later research utilized portfolio construction theory to overcome this issue. Studies found that an asset's expected excess return is not precisely proportional to its risk, challenging the conventional form of the CAPM. Further research explored different factors influencing asset returns and showed limited empirical support for the CAPM's relationships Miller & Scholes (1972).

Furthermore, several research overcome this issue by utilising portfolio construction theory. The first of these was undertaken by Black et al. (1972), who constructed portfolios of all New York Stock Market, stocks from 1931 through 1965. Their findings suggests that an asset's expected excess return is not precisely proportional to its: "and we argue that this evidence is sufficiently persuasive to support a rejection of the conventional form of the model" provided by Sharpe (1964).

Some researchers argued that factors like P/E ratios and market capitalization play a significant role in asset returns, suggesting that the CAPM lacks a single-factor linear relationship. Other studies examined the Japanese market and found that characteristics such as book-to-market ratio and cash flow yield had a major effect on expected returns. Fama & French proposed an alternative approach aligning with the arbitrage pricing theory, indicating the presence of unaccounted state variables that generate undiversifiable risks beyond market beta. Fama and MacBeth (1973) test the CAPM by building 20 asset portfolios. The beta was estimated applying a time series regression on monthly data from 1935 to 1968 in their study of all NYSE equities. Their findings show that the beta coefficient is highly significant and has remained low over a variety of sub-periods. Roll (1977, 1978) revealed serious concerns while testing the CAPM. Tinic & West (1984) utilised the same NYSE data from 1935 to 1982 as Fama & MacBeth (1973) but came to the opposite findings. The researchers concluded that further risk has no effect on return on assets. They observe, however, is greater than the risk-free rate, implying that the CAPM may not hold.

Basu (1977) believes that in an efficient stock market, asset prices completely represent the available data in an immediate and fair way, offering neutral appraisals of the fundamental values "to empirically determine whether the finance return on common stocks is related to their P/E ratios" (Basu, 1977, p.663). When companies are classified based on earnings-price ratios, those with a high P/E have better anticipated future returns than the CAPM. Another researcher highlighted concerns related to the utilisation of the CAPM. He notably mentions that when shares can be categorised by market capitalization, small-cap average returns beat the CAPM. When companies are classified based on earnings-price ratios, those with a high P/E have better anticipated future returns than the CAPM. Banz (1981) emphasises concerns related to the utilisation of the CAPM. He notably mentions that when shares can be categorised by market capitalization, small-cap average returns beat the CAPM. "Variations in the marketplace's proxy, estimation technique, and so have no effect on this causality." According to the findings, the "premium" linked with the debt/equity ratio is more than merely a risk premium." (Bhandari, 1988, p.507). All these studies show that the CAPM does not include a single element and that other factors influence returns on assets as well.

In their research focused on Japanese enterprises, Chan & colleagues (1991) explored the relation between changes in the return of stocks and four main variables: size, earnings yield, cash flow yield and book to market

ratio. Their research found a link between these characteristics and predicted returns in the Japanese market. Specifically, of the characteristics studied, the book to market ratio and cash flow yield had the most major beneficial effect on the expected returns. This emphasises the significance of book-to-market equity (BE/ME) in understanding the impact of average returns across different Japanese stocks (Chan et al., 1991, p.1739).

Fama & French (1992) propose an alternative approach, aligning with the arbitrage pricing theory, to analyze the link between stock market returns and factors such as size and book-to-market equity (B/M). In contrast, their findings contradict the basic prediction of the Sharpe-Lintner-Black Capital Asset Pricing Model (CAPM), which suggests a positive link between average stock returns and market betas. However, their study has faced criticism. Amihud et al. (1992) & Black (1993) argue that the imperfections in the data render the CAPM invalid. When employing more efficient statistical procedures, these authors find a positive and significant association between average return and beta. For example, Black (1993) suggests that the size effect, initially identified by Banz (1981), might be specific to certain time periods rather than a consistent phenomenon.

Lakonishok et al. (1994) propose that the size and price-to-book (P/B) effects result from investor overreactions rather than risk compensation. They suggest that investors tend to overreact to company news, leading to overpricing of 'growth' stocks (large capitalization, low P/B) and underpricing of 'value' stocks (small capitalization, high P/B). Kothari et al. (1995) find that using historical betas computed from annual returns strengthens the relationship between return and beta. They conclude that there is economically and statistically significant compensation (approximately 6-9% p.a.) for beta risk in the cross-section of expected returns.

Fama & French (1995) further extend their predictions, stating that the return on a small stock portfolio will surpass that of a large stock portfolio (the size effect) and that stocks with high B/M ratios will outperform those with low B/M ratios. Fama & French (1993) adopt an indirect approach, akin to Ross' (1976) APT, arguing that while size and B/M equity are not state variables on their own, the higher average returns observed in small and high B/M stocks stem from unidentified state variables that generate undiversifiable risks and covariances in returns, separate from market beta.

Kothari & Shanken (1999) criticize Fama & French (1992) for their tendency to overlook positive data on historical betas while placing excessive emphasis on P/B. They argue that, despite being statistically significant, the incremental benefit of size in relation to beta is unexpectedly insignificant. They also suggest that P/B is an inadequate predictor of cross-sectional variations in average returns among large companies and unable to monitor return changes due to speed and trading volume. In contrast, Elsas et al. (2000) finds a positive and significant correlation. They assert that these empirical results justify portfolio managers' utilization of betas estimated from historical return data.

Critics of the CAPM pointed out flaws in data measurement and emphasized the importance of historical betas in predicting return changes. They also suggested that size and price-to-book effects result from investor overreactions rather than risk compensation. Different studies provided evidence contradicting the CAPM, including negative correlations between returns and volatility, higher returns from randomly selected portfolios, and outperformance of equal-weight indexes. According to Cremers (2001), the data does not give definitive support against the CAPM. He also claims that poor CAPM performance is frequently linked to measurement flaws with the market portfolio and its beta, implying that the CAPM may still be viable. Five years of every month data and an equal-weighted index, according to Bartholdy and Peare (2001), produce the most accurate estimations for previous beta. However, they discover that the explanatory effectiveness of previous betas in predicting return fluctuations in future periods of time differs throughout years, ranging from 0.01% to 11.73%. Avramov (2002) suggests that the value of small-cap equities exhibit greater predictability than large-cap growth firms, and highlights the relevance of model uncertainty over estimation risk. Ignoring

model uncertainty can lead to significant utility losses for investors. Gryphon (2002) argues that countryspecific three-factor models are more effective than global and international variants in understanding stock returns.

Koutmos & Knif (2002) propose a dynamic vector GARCH model for estimating time-varying betas. Their findings indicate that betas tend to be larger during market downturns in half of the cases (with the opposite pattern observed in the other half). Thompson et al. (2006) present three pieces of evidence contradicting the CAPM:

- i. In the period from 1926 to 2000, there was a negative correlation (-0.32) between the return of the Ibbotson Index and volatility.
- ii. 65% of randomly selected portfolios yielded higher returns than predicted by the CAPM.
- iii. From 1970 to 2002, an equal-weight index achieved an annualized return 4.8% higher than the S&P 500.

Levy & Roll (2010) argue that several commonly used market proxies can be consistent with the CAPM and utilise for estimating expected returns, as long as minor errors in estimating return moments are allowed. They refer to this data manipulation technique as a "reverse engineering approach." Their study, based on the monthly returns of the 100 largest US corporations from December 1996 to December 2006, serves as an experiment to demonstrate this concept.

The original CAPM model has lacked empirical success, and subsequent research has identified characteristics such as size, various price ratios, and momentum that contribute to explaining average returns beyond beta. According to Fama & French (2004), there is no evidence supporting the core proposition of the CAPM that higher returns are assigned with higher risk (beta). The rejection of the standard CAPM as a model to explain risk-return tradeoffs is attributed to factors such as insufficient information regarding market, investing in particular stocks of the company rather than portfolios, and the presence of undiversified portfolios over short observation periods. To address measurement errors in individual beta estimations, studies often combine stocks into portfolios to improve the accuracy of beta estimates. The findings generally contradict the CAPM and provide evidence against its validity. However, incorporating the square of the beta coefficient to test for non-linearity in the linkage of returns and betas suggests that the data support a linear relationship between expected return and beta.

Various econometric techniques and larger datasets have allowed for more sophisticated analyses of the CAPM. While the CAPM remains an important foundational model in finance, it has limitations, and additional factors are needed to explain asset return variations. Ongoing research aims to refine and expand asset pricing models beyond the traditional CAPM framework. Overall, the literature on the CAPM highlights its importance as a foundational model in finance, but also acknowledges its limitations and the need for additional factors to explain the variation in asset returns. Ongoing research continues to refine and expand the understanding of asset pricing models beyond the traditional CAPM framework.

This theoretical study evaluates existing research on the CAPM, acknowledging its limitations and the need for future empirical investigations. The study proposes hypotheses to be tested in the Indian stock market, focusing on the relationship between financial performance and stock returns, differences in returns between manufacturing and service sectors, and disparities between large-cap and small-cap companies. The study proposes the following hypotheses to be tested in the context of the Indian stock market:

H1: There is a relationship between a company's financial performance and its stock returns in the Indian stock market.

This hypothesis forms the basis for potential empirical research to explore the relationships between financial performance, sector classification, company size, and stock returns in the Indian stock market.

## **3. RESEARCH METHODOLOGY**

This research is centred on the usage of CAPM method for enhancing the performance of Nifty stock index. For this subject, experimental study has been conducted and relevant data has been gathered.

# 3.1 Research philosophy

The research philosophy of positivism has been taken into consideration in order to effectively handle the goal of this study. The study of epistemology may aid in gaining a better grasp of a current topic of discussion. As a result, it might be either subjective or objective (Newman and Gough, 2020). In this research, positivism will take precedence over interpretive in the epistemology phase. In order to arrive at its prior research and make use of outcomes that has been positively interpreted, whether via personal experience or scientific experimentation. In this research study the inclusion of positivism research philosophy has enabled the researcher to critically evaluate the operational efficiency of the firm in an effective manner.

# 3.2 Research design

In this research study the researcher decided to utilize an experimental mode of research design in order to address the purpose of the study in an effective manner. Experimentation is a kind of study in which two variables in the study are used in a scientific manner (Mohajan, 2018). Since the research study has aimed to measure the performance of Nifty, because of this, it is justified to modify this research design in order to improve the study's result in a statistically meaningful way.

# 3.3 Research approach

The deductive method of research approach has been taken into consideration. Apart from that, since the study has incorporated the positivist research philosophy, hence it will be more convenient for the researcher to utilize deductive format of research approach to perform the hypothesis test of the study (Dźwigoł & DźwigołBarosz, 2018). In addition to that, the adaption of deductive research approaches can also enable a researcher to take essential insights which can be utilized for addressing the strategic objectives of the study in a sufficient way. It has been expected that the utilization of deductive research approaches will create more opportunities for the researcher to address the research questions and objectives in a succinct manner.

# 3.4 Data collection and analysis method

The research plan is developed in line with the research philosophy, deductive technique, and empirical method of data analysis used in the study. Insights on the data engagement may be gained via the use of a research approach. According to the words of Snyder (2019), there are generally two types of data collection method that can be detected such secondary method of data collection from Yahoo Finance website.

Date	Market Factor						
2019-01	-2.51286	2019-07	-6.77043	2020-01	0.835766	2020-07	7.070257
2019-02	-0.67908	2019-08	0.187949	2020-02	-6.35009	2020-08	3.117625
2019-03	5.584219	2019-09	4.121664	2020-03	-18.921	2020-09	2.200414
2019-04	0.298849	2019-10	4.037746	2020-04	13.84831	2020-10	0.379549
2019-05	-0.97319	2019-11	-1.82145	2020-05	0.46567	2020-11	6.963466
2019-06	-2.4296	2019-12	-0.33932	2020-06	7.781317	2020-12	8.042781

Table 1 Market Factor	able	able 1 Mar	·ket F	actors	S
-----------------------	------	------------	--------	--------	---

#### 4. DATAANALYSIS

This part of the research study has tried to provide a positive overview regarding the performance of the Nifty stock market after utilizing the CAPM. Apart from that, this part of the research study has performed secondary quantitative analysis based on the information that has been obtained through the utilization of secondary methods of data collection. In addition to that, the researcher has also performed statistical analysis in this part of the research study through the utilization of MS Excel & SPSS 22.0 software based on the information that has been obtained through the usage of secondary data collection from Yahoo Finance website.

#### 4.1 Selection Data

Because it must demonstrate how to test, instead of selecting 100 stocks based on the requirements of the standard test, 50 stocks from various industries were chosen from the National Securities Exchange. During that time period, the annual 13-week Treasury bill yield of 7.2 percent was likewise chosen as the risk-free rate. The monthly closing price from January 2019 through the end of 2020 is the unit of analysis in this study. The acquired data will be analysed using simple linear regression, multiple linear regression, and the t-test.

Sr. No.	Stock Name	R Square	Adjusted R square	F	Significance	Beta	Sign / Non Sign
01	Adani Ports Sez Ltd	0.519	0.497	23.751	0	0.016	S
02	Apollo Hospitals Ltd	0.087	0.045	2.092	0.162	0.008	NS
03	Asian Paints Ltd	0.407	0.38	15.123	0.001	0.013	S
04	Axis Bank Ltd	0.216	0.181	6.072	0.022	0.009	S
05	Bajaj Auto Ltd	0.093	0.052	2.253	0.148	0.005	NS
06	Bajaj Finance Ltd	0.472	0.448	19.67	0	0.15	S
07	Bajaj Finserv Ltd	0.517	0.495	23.587	0	0.019	S
08	Bharat Petroleum Ltd	0.455	0.431	18.387	0	0.012	S
09	Bharti Airtel Ltd	0.055	0.012	1.29	0.268	0.004	NS
10	Britannia Industries Ltd	0.043	0	0.989	0.331	0.004	NS
11	Cipla Ltd	0.12	0.08	3	0.097	0.005	NS
12	Coal India Ltd	0.125	0.085	3.145	0.09	0.009	NS
13	Divis Laboratories Ltd	0.1	0.059	2.437	0.133	0.006	NS
14	Dr Reddys Laboratories Ltd	0.06	0.017	1.401	0.249	0.004	NS
15	Eicher Motors Ltd	0.032	-0.012	0.737	0.4	0.003	NS
16	Grasim Industries Ltd	0.401	0.373	14.708	0.001	0.013	S
17	Hcl Technologies Ltd	0.222	0.187	6.292	0.02	0.009	S

**Table 2 Data Analysis** 

GFJMR : ISSN 2229-4651

Sr. No.	Stock Name	R Square	Adjusted R square	F	Significance	Beta	Sign / Non Sign
18	Hdfc Bank Ltd	0.359	0.33	12.346	0.002	0.007	S
19	Hdfc Life Insurance Ltd	0.271	0.238	8.182	0.009	0.007	S
20	Hero Motocorp Ltd	0.013	-0.031	0.299	0.59	0.002	NS
21	Hindalco Industries Ltd	0.316	0.285	10.168	0.004	0.019	S
22	Hindustan Unilever Ltd	0.133	0.094	3.385	0.079	0.007	NS
23	Icici Bank Ltd	0.292	0.26	9.089	0.006	0.009	NS
24	Indian Oil Corporation Ltd	0.259	0.225	7.69	0.011	0.009	S
25	Indusind Bank Ltd	0.253	0.219	7.433	0.012	0.013	S
26	Infosys Ltd	0.245	0.211	7.151	0.014	0.009	S
27	Itc Ltd	0.134	0.095	3.401	0.079	0.005	NS
28	Jsw Steel Ltd	0.173	0.136	4.613	0.043	0.013	S
29	Kotak Mahindra Bank Ltd	0.185	0.148	4.994	0.036	0.007	S
30	Lt Larsen Toubro Ltd	0.484	0.46	20.611	0	0.009	S
31	Mahindra Mahindra Ltd	0.044	0.001	1.014	0.325	0.003	NS
32	Maruti Suzuki Ltd	0.006	0.04	0.125	0.727	0.001	NS
33	Nestle India Ltd	0.338	0.308	11.222	0.003	0.007	S
34	Ntpc Ltd	0.242	0.207	7.019	0.015	0.01	S
35	Oil Natural Gas Corporation Ltd	0.057	0.015	1.34	0.26	0.005	NS
36	Power Grid Corporation Of India Ltd	0.21	0.174	5.86	0.024	0.006	S
37	Reliance Industries Ltd	0.365	0.337	12.668	0.002	0.01	S
38	Sbi Life Insurance Ltd	0.429	0.403	16.522	0.001	0.011	S
39	Shree Cement Ltd	0.45	0.425	17.994	0	0.013	S
40	State Bank Of India Ltd	0.219	0.184	6.177	0.021	0.011	S
41	Sun Pharmaceutical Ltd	0.251	0.217	7.379	0.013	0.007	S
42	Tata Consumer Products Ltd	0.402	0.375	14.799	0.001	0.011	S
43	Tata Motors Ltd	0.07	0.028	1.659	0.211	0.009	NS
44	Tata Steel Ltd	0.285	0.252	8.757	0.007	0.031	NS

GFJMR : ISSN 2229-4651

Sr. No.	Stock Name	R Square	Adjusted R square	F	Significance	Beta	Sign / Non Sign
45	Tcs Tata Consultancy Services Ltd	0.186	0.149	5.026	0.035	0.007	S
46	Tech Mahindra Ltd	0.317	0.286	10.233	0.004	0.013	S
47	Titan Ltd	0.395	0.367	14.356	0.001	0.013	S
48	Ultratech Cement Ltd	0.517	0.495	23.522	0	0.12	S
49	Upl United Phosphorus Ltd	0.386	0.358	13.812	0.001	0.018	S
50	Wipro Ltd	0.235	0.2	6.759	0.016	0.01	S

P<0.05

Adani Ports, Asian Paints, Axis Bank, Bajaj Finance, Bajaj Finserv, Bharat Petroleum, Grasim Industries, Hcl Technologies, Hdfc Bank, Hdfc Life Insurance, Hindalco Industries, Indian Oil Corporation, Indusind Bank, Infosys, Jsw Steel, Kotak Mahindra Bank, Lt Larsen Toubro, Nestle India, Ntpc, Power Grid Corporation Of India, Reliance Industries, Sbi Life Insurance, Shree Cement, State Bank Of India, Sun Pharmaceutical, Tata Consumer Products, Tata Consultancy Services, Tech Mahindra, Titan, Ultratech Cement, Upl United Phosphorus, Wipro are the stocks have p- value less than 0.05 hence, results for these stocks are significant.

Apollo Hospitals, Bajaj Auto, Bharti Airtel, Britannia Industries, Cipla, Coal India, Divis Laboratories, Dr. Reddys Laboratories, Eicher Motors, Hero Motocorp, Hindustan Unilever, ICICI Bank, TC, Mahindra Mahindra, Maruti Suzuki, Oil Natural Gas Corporation, Tata Motors, Tata Steel are the stocks with P- value greater than 0.05, indicating that the results for these stocks are not statistically significant.

## **5. CONCLUSION**

CAPM is an effective technique of tool that can be used to address a firm's strategic objectives in a more realistic manner. Aside from that, it has been shown that using CAPM provides a better discount rate than other rates for an investor's investment evaluation. The link between risk and return is clearly demonstrated by this model. Since the Securities and Exchange Board of India (SEBI) modified the industry in late 2017/early 2018, there has been no significant and systematic outperformance by large-cap actively managed funds. Furthermore, the UTI Nifty index fund and 18 large cap stocks mutual funds rebuild on the end-of-year performance in 2017. Most actively managed funds have fallen behind their index counterparts over the last year. The "active return," often known as alpha, is a statistic used to compare the performance of a fund to that of a benchmark. However, it is believed that the use of CAPM will be more advantageous for these organisations in improving their monetary performance in a more effective manner.

The findings suggest that the linear structure of the CAPM equation provides a plausible explanation for security returns. According to the CAPM, the intercept is expected to be zero, and the slope should correspond to the market portfolio's excess returns. The objective of these studies is to assess the validity of the CAPM in capital markets and confirm its fundamental proposition that higher risk (beta) is linked to higher returns.

## References

Aktas, E. and McDaniel, W.R. (2009) 'Pragmatic problems in using beta for managerial finance applications', Applied Financial Economics, Vol. 19, No. 16, pp.1345–1354.

Amihud, Y., Christensen, B. J., & Mendelson, H. (1992). Further evidence on the risk-return relationship (Vol. 11). Graduate School of Business, Stanford University.

Antoniou, C., Doukas, J. A., & Subrahmanyam, A. (2016). Investor sentiment, beta, and the cost of equity capital. Management Science, 62(2), 347-367.

Avramov, D. (2002) 'Stock return predictability and model uncertainty', Journal of Financial Economics, Vol. 64, No. 3, pp.423–458.

Banz, R.W. (1981) 'The relationship between return and market value of common stocks', Journal of Financial Economics, Vol. 9, No. 1, pp.3–18.

Bartholdy, J., & Peare, P. (2001). The relative efficiency of beta estimates. Available at SSRN 263745.

Basu, S. (1977) 'Investment performance of common stocks in relation to their price earnings ratios: a test of efficient market hypothesis', The Journal of Finance, Vol. 32, No. 3, pp.663–682.

Bhandari, L.C. (1988) 'Debt/equity ratio and expected common stock returns: empirical evidence', The Journal of Finance, Vol. 43, No. 2, pp.507–528.

Black, F. (1972) 'Capital market equilibrium with restricted borrowing', Journal of Business, Vol. 45, No. 3, pp.444–455.

Black, F. (1993) 'Beta and return', Journal of Portfolio Management, Vol. 20, No. 4, pp.8–18.

Brennan, T.J. and Lo, A.W. (2010) 'Impossible frontiers', Management Science, Vol. 56, No. 6, pp.905–923.

Chan, L.K.C., Hamao, Y. and Lakonishok, J. (1991) 'Fundamentals and stock returns in Japan', Journal of Finance, Vol. 46, No. 5, pp.1739–1789.

Davis, J. (1994) 'The cross-section of realized stock returns: the pre-compustat evidence', Journal of Finance, Vol. 49, No. 5, pp.1579–1593.

Dempsey, M. (2013) 'The capital asset pricing model (CAPM): the history of a failed revolutionary idea in finance?', ABACUS, Vol. 49, No. S1, pp.7–23.

Douglas, G.W. (1969) 'Risk in the equity markets: an empirical appraisal of market efficiency', Yale Economic Essays, Vol. 9, No. 1, pp.3–45.

Engelen, P. J. (2016). Global Business & Economics Review.

Fama, E.F. and French, K.R. (1992) 'The cross section of expected return', The Journal of Finance, Vol. 47, No. 2, pp.427–465.

Fama, E.F. and French, K.R. (1993) 'Common risk factors in the returns on stocks and bonds', Journal of Financial Economics, Vol. 33, No. 1, pp.3–56.

Fama, E.F. and French, K.R. (1995) 'Size and book-to-market factors in earnings and returns', Journal of Finance, Vol. 50, No. 1, pp.131–155.

Jensen, M. C., Black, F., & Scholes, M. S. (1972). The capital asset pricing model: Some empirical tests.

Rossi, M. (2016). The capital asset pricing model: a critical literature review. Global Business and Economics Review, 18(5), 604-617.