

## **ANALYSIS THE PERFORMANCE OF FUND MANAGER OF MUTUAL FUND: A STUDY ON SELECTED EQUITY SCHEMES IN INDIA DURING PRE AND POST LOCKDOWN PERIOD**

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### **ABSTRACT:**

Financial sector can play a big role for economic development of our country like India. Mutual fund sector is a part of this sector of which contribute more as compare with other sectors for economic development. Mutual fund is collective investment vehicles that collect money from various types of investors those who are invest own money into stock, they are directly owner of this stock. Simply, investors are investing own money into mutual fund schemes because they don't have any idea about stock market. They are getting more return from the mutual fund schemes after these schemes invested by the fund manager into good stock. If these stock are providing good return then they are getting good return otherwise, they are not getting good return on their investment. So, stock picking is important factor for mutual fund schemes by the fund manager and also invest our money at right time into stock. Those schemes fund manager have good quality of stock selection and market timings skill, these schemes are producing more and more return. So, measuring the performance of mutual fund manager is one of the important factor for investing into mutual fund. Our present paper is trying to find out the performance of fund manager during pre and post lockdown period.

**Key Words: Mutual fund, Financial Sector, Stock Selection, Market Timing**

### **INTRODUCTION:**

Now a day's mutual fund industries have played an important role for economic development in India. With the emphasis in increase in domestic savings and improvement of investment through markets, the needs and scope for mutual fund operation has increased tremendously. Now mutual funds collect huge amount of money from various types' of customers from various places and also take part of development of capital market. It is an alternative vehicle of intermediation between the suppliers and users of investible resources. This vehicle more and more popular in this today's market because of paying higher return relatively lower risk and cost to investor. All this function can be done by this vehicle after properly invest our money by the fund manager into proper securities. These selections of securities are most important function of this fund manager who is manages our invested money. The existence of the mutual fund selection is predicated on the assumption that some mutual fund managers posses significant ability and that this ability persists, allowing the investor to predict future performance based on past results. Thus the involvement of mutual funds in the transformation of Indian economy has made it urgent to view their services not only as financial intermediates but also as pace setter as they are playing a significance role in spreading equity culture. Our objective of this paper is to find out stock selection and market timing ability of the fund manager.

### **OBJECTIVES OF THE STUDY:**

This paper examines the stock picking and timing performance and persistence of selected equity oriented growth schemes in India during pre and post lock down period.

### DATA DESCRIPTIPON:

The present paper investigates the performance of 23 equity oriented diversified mutual fund schemes for the period April 2019 to march 2021. This period is belong between pre lockdown and post lockdown. Daily NAV have been used for calculation of the return, risk of the schemes. BSE- Sensex has been used for the market measurement. 91-days Treasury bill used for measuring risk free return.

### METHODOLOGY:

Standard deviation has been used to measure the depreciation around the mean, coefficient of variation was also utilised to measure the risk per return i.e. the deviation between standard deviation and mean return and beta has been utilised to measure the systematic risk of an investment

#### a) The Jensen technique:

$$E(R_p) = R_f + \beta_p [ E(R_m) - R_f ]$$

Jensen introduced the additional term  $\delta p$  to represent a consent periodic return (i.e. either positive or negative) that an investor can earn in identified market risk .hence, this can be represented as follows:

$$(R_p - R_f) = \alpha_p + \beta_p (R_m - R_f) + \epsilon_p$$

Where  $(R_p - R_f)$  is the risk premium earned on portfolio P,  $\epsilon_p$  is the random error term. Jensen technique uses  $\alpha_p$  to indicate the performance of a portfolio of a portfolio. This technique uses regression procedures to estimate alpha i.e.  $\alpha$  is positive and significantly higher than zero, then the portfolio can be outperformed and vice-versa.

#### b) Mazuy model:

These are several procedures that have been proposed to correct the effect of timing ability on the estimation of beta. The first is a quadratic proposed by mazuy technique. This regression model is

$$(R_p - R_f) = \alpha + \beta (R_m - R_f) + \beta_1 (R_m - R_f)^2 + \epsilon_p$$

Where  $R_f$  is the risk free return,  $\alpha$ ,  $\beta$ ,  $\beta_1$  are the parameter of the model. Mazuy has argued that estimated value of parameter beta one as measure of market timing ability skill of the fund manager. If fund manager could able to select the time correctly, the estimated value of beta would be significantly positive. On the contrary if the estimated value of beta should not be significantly different from zero, the fund manager is not being able to select the market timing correctly.

#### c) R – Squared

R – Squared values range from 0 to 100 means that all movements of a securities are completely explained by movements in the index. A high R (between 85 to 100) indicates the fund's performance patterns have been in line with the index. A fund with a low R (70 or less) doesn't act much like the index.

General range for R – Squared:

- 70-100% = Good correlation between the portfolio's returns and the benchmark's returns.
- 40-70% = Average correlation between the portfolio's return and the benchmark's returns.
- 1-40% = low correlation between the portfolio's return and the benchmark's returns.

**INTERPRETATION:**

**Table-1**  
**Return and Risk of portfolio and benchmark**

Name of the Schemes	Rp	SDp	Rm	SDm	Rf
Axis Bluechip Fund - Direct Plan - Growth	19.2	2.32	15.59	1.03	4.5
Axis Dynamic Equity Fund - Regular	8.29	1.72	15.59	1.03	4.5
Axis Equity Hybrid Fund - Direct Plan -	15.71	2.66	15.59	1.03	4.5
Baroda Dynamic Equity Fund-Regular Plan - Growth	16.8	2.28	15.59	1.03	4.5
HDFC Equity Opp Fund - II - 1100D June	5.14	3.44	15.59	1.03	4.5
ICICI Prudential Equity - Arbitrage Fund	5.38	0.91	15.59	1.03	4.5
IDBI Equity Advantage Fund - IDCW Direct	10.09	3.16	15.59	1.03	4.5
Kotak Bluechip Fund - Growth	17.68	3.72	15.59	1.03	4.5
Kotak Emerging Equity Scheme - Growth	21.92	3.26	15.59	1.03	4.5
Kotak Equity Arbitrage Fund - Growth	4.91	0.18	15.59	1.03	4.5
Kotak Equity Hybrid - Growth	18	2.92	15.59	1.03	4.5
Nippon India Equity Hybrid Fund- Direct	3.93	0.19	15.59	1.03	4.5
Nippon India Equity Fund	3.17	0.17	15.59	1.03	4.5
SBI Equity Savings Fund - Direct Plan - Growth	11.69	1.77	15.59	1.03	4.5
SBI Equity Savings Fund - Regular Plan -	10.4	1.91	15.59	1.03	4.5
UTI - Hybrid Equity Fund - Regular Plan - Growth	11.15	2.77	15.59	1.03	4.5
UTI Equity Savings Fund - Regular Plan - Growth	8.41	1.28	15.59	1.03	4.5
Union Equity Savings Fund - Regular Pl	9.28	2.05	15.59	1.03	4.5
Sundaram Equity Hybrid Fund Direct Plan -	13.18	2.58	15.59	1.03	4.5
L&T Hybrid Equity Fund - Direct Plan-Gro	12.98	3.05	15.59	1.03	4.5
BOI AXA Mid & Small Cap Equity & Debt	5.75	2.96	15.59	1.03	4.5
BOI AXA Large & Mid Cap Equity Fund Eco	16.76	3.05	15.59	1.03	4.5
BNP Paribas Dynamic Equity Fund	13.04	2.9	15.59	1.03	4.5

Source: computed value

Above table depicts the risk and return of our selected schemes. In simply, we know that higher return is associated with higher risk and vice versa. We saw various types of result from the above table. Axis Bluechip Fund - Direct Plan – Growth and Kotak Emerging Equity Scheme – Growth produced higher rate of return of 19.20% and 21.92% corresponding higher risk of 2.32 and 3.26 respectively. HDFC Equity Opp Fund - II - 1100D June and Boi Axa Mid & Small Cap Equity & Debt produced lower rate of return of 5.14% and 5.75% corresponding higher risk of 3.44 and 2.96 respectively. Nippon India Equity Hybrid Fund- Direct and Nippon India Equity Fund produced lower rate of return of 3.93% and 3.17% corresponding lower risk of .19 and .17 respectively. Benchmark return and risk are 15.59% and 4.03 respectively. Only 7 schemes produced return more than benchmark return but rest of the schemes did not cross the benchmark. On the other hand, we saw that risk of all schemes produced less risk than market risk. So, we concluded that performance of our selected schemes are not good except Axis Bluechip Fund - Direct Plan – Growth, Kotak Emerging Equity Scheme – Growth, Kotak Equity Hybrid – Growth and Kotak Bluechip Fund – Growth.

**Table-2**  
**Result of Jensen Alpha**

Name of the Schemes	Alpha	t-value	p-value
Axis Bluechip Fund - Direct Plan - Growth	0.018	1.289	0.198
Axis Dynamic Equity Fund - Regular	-0.018	-1.838	0.067
Axis Equity Hybrid Fund - Direct Plan -	0.007	0.624	0.533
Baroda Dynamic Equity Fund-Regular Plan - Growth	0.013	1.102	0.271
HDFC Equity Opp Fund - II - 1100D June	-0.033	-0.656	0.512
ICICI Prudential Equity - Arbitrage Fund	-0.022	-6.61	0
IDBI Equity Advantage Fund - IDCW Direct	-0.016	-0.58	0.562
Kotak Bluechip Fund - Growth	0.009	0.876	0.381
Kotak Emerging Equity Scheme - Growth	0.031	1.009	0.314
Kotak Equity Arbitrage Fund - Growth	-0.024	-7.546	0
Kotak Equity Hybrid - Growth	0.015	1.084	0.279
Nippon India Equity Hybrid Fund- Direct	-0.042	-1.601	0.11
Nippon India Equity Fund	-0.045	-1.719	0.086
SBI Equity Savings Fund - Direct Plan - Growth	-0.008	-1.233	0.218
SBI Equity Savings Fund - Regular Plan -	-0.01	-1.664	0.097
UTI - Hybrid Equity Fund - Regular Plan - Growth	-0.011	-0.773	0.44
UTI Equity Savings Fund - Regular Plan - Growth	-0.016	-2.082	0.038
Union Equity Savings Fund - Regular Plan	0.031	6.73	0
Sundaram Equity Hybrid Fund Direct Plan -	-0.003	-0.201	0.841
L&T Hybrid Equity Fund - Direct Plan-Gro	-0.004	-0.402	0.688
BOI AXA Mid & Small Cap Equity & Debt	-0.012	-18.73	0
BOI AXA Large & Mid Cap Equity Fund Eco	0.008	0.409	0.682
BNP Paribas Dynamic Equity Fund	0.006	0.0056	0.956

Source: computed value

Jensen(1968) propound Jensen alpha measure which is intercept from the Sharp-Linter CAPM regression which measure impact of market portfolio excess return on portfolio excess return. Jensen alpha is the arithmetic difference of the portfolio return from the return of a portfolio on the securities market line with the same beta. Jensen defines his measure of portfolio performance as the difference between the actual return on a portfolio in any particular holding period and the expected return on that portfolio conditional on the risk free rate. A positive and significance value shows the stock selection ability of the schemes in order to generate superior return. From the above table we saw 14 schemes produced negative value and only 9 schemes produced positive value of alpha. But from 9 schemes, only 1 scheme has positive and significant value of alpha at 5% level. This scheme is Union Equity Savings Fund - Regular Plan. On the other hand, only 4 sample schemes had produced significance negative value. These schemes are ICICI Prudential Equity - Arbitrage Fund, Kotak Equity Arbitrage Fund – Growth, UTI Equity Savings Fund - Regular Plan – Growth and BOI AXA Mid & Small Cap Equity & Debt. we could not draw any conclusion on rest of sample schemes of mutual fund. We concluded that fund manager of

our selected schemes did not have stock selection ability. Only 4 schemes have higher stock selection ability and produce super or sustainable return.

**Table-3**  
**Result of Mazuy Model**

Name of the Schemes	Timing	t-value	p-value
Axis Bluechip Fund - Direct Plan - Growth	0.001	0.459	0.003
Axis Dynamic Equity Fund - Regular	-0.001	-1.349	0.178
Axis Equity Hybrid Fund - Direct Plan -	-0.004	-3.745	0
Baroda Dynamic Equity Fund-Regular Plan - Growth	-0.002	-2.085	0.038
HDFC Equity Opp Fund - II - 1100D June	0.02	4.202	0
ICICI Prudential Equity - Arbitrage Fund	.06	-1.478	0.148
IDBI Equity Advantage Fund - IDCW Direct	0.01	-3.065	0
Kotak Bluechip Fund - Growth	-0.005	-4.847	0
Kotak Emerging Equity Scheme - Growth	0.02	-6.986	0
Kotak Equity Arbitrage Fund - Growth	-0.001	-1.839	0.066
Kotak Equity Hybrid - Growth	0.008	-6.195	0
Nippon India Equity Hybrid Fund- Direct	-0.005	-2.094	0.037
Nippon India Equity Fund	-0.004	-2.105	0.049
SBI Equity Savings Fund - Direct Plan - Growth	-0.001	-1.542	0.133
SBI Equity Savings Fund - Regular Plan -	-0.001	-1.547	0.125
UTI - Hybrid Equity Fund - Regular Plan - Growth	-0.006	-4.196	0
UTI Equity Savings Fund - Regular Plan - Growth	-0.002	-2.749	0.006
Union Equity Savings Fund - Regular Pl	-0.002	-3.855	0
Sundaram Equity Hybrid Fund Direct Plan -	-0.006	-4.865	0
L&T Hybrid Equity Fund - Direct Plan-Gro	-0.005	-4.832	0
BOI AXA Mid & Small Cap Equity & Debt	0.174	17.486	0
BOI AXA Large & Mid Cap Equity Fund Eco	-0.01	-4.961	0
BNP Paribas Dynamic Equity Fund	-0.003	-3.771	0

Source: computed value

Mazuy urged that a positive and significance value of beta-1 is denoted the fund managers have the market timing skill. Positive but not significance value of alpha is not taken any conclusion. Negative and significance value of alpha told us, the fund managers have not market timing skill. we saw that only 7 sample schemes have positive value of alpha. Only 6 sample schemes have significance positive value at 5% level. These schemes are good for investor. These schemes are Axis Bluechip Fund - Direct Plan – Growth, HDFC Equity Opp Fund - II - 1100D June, IDBI Equity Advantage Fund - IDCW Direct, Kotak Emerging Equity Scheme – Growth, Kotak Equity Hybrid – Growth and BOI AXA Mid & Small Cap Equity & Debt. Fund managers of these schemes have good timing skill. They were picking the stock at right time. On the other hand, we saw that 16 sample schemes have produced negative value of alpha. 13 schemes of mutual fund

had negative significance value at 5% level. Fund manager of these schemes did not pick up the time perfectly. Rest of sample schemes had negative but not significance. We could not draw any conclusion on these schemes. We concluded that only 30% of sample schemes fund manager had the market timing skill. Fund managers of sample schemes could not produce good result.

**Table-4**  
**Rank table of Alpha and Mazuy Model**

Name of the Schemes	Alpha	Timing
Axis Bluechip Fund - Direct Plan - Growth	3	4
Axis Dynamic Equity Fund - Regular	15	5
Axis Equity Hybrid Fund - Direct Plan -	5	13
Baroda Dynamic Equity Fund-Regular Plan -Growth	1	9
HDFC Equity Opp Fund - II - 1100D June	21	2
ICICI Prudential Equity - Arbitrage Fund	17	2
IDBI Equity Advantage Fund - IDCW Direct	18	21
Kotak Bluechip Fund - Growth	9	15
Kotak Emerging Equity Scheme - Growth	7	23
Kotak Equity Arbitrage Fund - Growth	20	5
Kotak Equity Hybrid - Growth	2	20
Nippon India Equity Hybrid Fund- Direct	22	15
Nippon India Equity Fund	23	13
SBI Equity Savings Fund - Direct Plan - Growth	6	5
SBI Equity Savings Fund - Regular Plan -	10	5
UTI - Hybrid Equity Fund - Regular Plan - Growth	14	18
UTI Equity Savings Fund - Regular Plan - Growth	12	9
Union Equity Savings Fund - Regular Pl	16	9
Sundaram Equity Hybrid Fund Direct Plan -	11	18
L&T Hybrid Equity Fund - Direct Plan-Gro	13	15
BOI AXA Mid & Small Cap Equity & Debt	19	1
BOI AXA Large & Mid Cap Equity Fund Eco	8	21
BNP Paribas Dynamic Equity Fund	4	12

Source: computed value

Alpha denotes the stock selection skill of the fund manager of mutual fund and timing factor denotes the market timing ability of fund manager. If any schemes produce same rank under both occasion, where we say that fund manager of this schemes have both skill at same time. We saw that none of sample schemes had produced same rank on both occasions. Also none of the schemes have produced close rank on both occasions except SBI Equity Savings Fund - Direct Plan – Growth. This scheme produced 6 rank under Jensen model and 5 rank under Mazuy model. We concluded that fund mangers of our selected sample schemes did not produce uniform performance.

**Table-5**  
**Correlation between Mazuy and Jensen Model**

		Alpha	Timing
Alpha	Pearson Correlation	1	-0.222
	Sig. (2-tailed)		0.309
	N	23	23
Timing	Pearson Correlation	-0.222	1
	Sig. (2-tailed)	0.309	
	N	23	23

Source: computed value

Correlation indicates the relation between them. Positive correlation indicates the positive relation between them and vice versa. We saw that there was negative correlation between Jensen and Mazuy model. The value of r was -.222 with p-value .309. This value was not significant. Relation between Mazuy model and Jensen model was negative. No relation was between them. We could not draw any sure conclusion because this value was not significant. Simply we concluded that our sample schemes did not produce uniform performance for stock selection and market timing skill.

**Conclusion:**

Lockdown could affect the investor because incomes of investors were reduced due to lack of job available. On that time capital market also reduced the growth rate due to lack of investment. But, Mutual fund industry is growing year after year. Investors are more aware about this industry. Presently, many more mutual fund company are entering into capital market for collecting money from the investor. These company are produced more number of schemes for investor. But, which schemes is good for the investors which are difficult task for the investor. They are analysis the performance of this particular scheme of mutual fund. We had found that our sample schemes did not produced much more return during this period. Performances of fund manager were not good for investor point of view. The fund manager did not able to select the right stock and time the market positively. We say that return from mutual fund schemes is totally depending on the performance of the fund manager skill. Otherwise, investors will not get good return from the mutual fund schemes.

**REFERENCE**

- 1) Ali, Naseen and Rehman (2010) "Performance Evaluation of Mutual Funds" Journal of Business.
- 2) Bauman.W.S and Miller. E. R (1994) "Can Manage Portfolio Performance Be Predicted", The Journal Of Portfolio Management.
- 3) Bahl and Rani (2012) "A Comparative Analysis of Mutual Funds Schemes in India" Journal Of Business And Economic Issue
- 4) Gupta L. C (2002) "Mutual Fund and Assets Preference". Society for capital Market Research and Development, Delhi.

- 5) Mishra.B.(2007). 'A Study Of Mutual Funds In India', Unpublished Research Paper Under The Aegis Of Faculty Of Management Studies, University Of Delhi.
- 6) Sahadevan and Raju (1996): "Mutual Funds: Data, Interpretation and Analysis ", Prentice Hall of India Private Limited, New Delhi.
- 7) Pandow, B. (2016). Market Timing Ability of Fund Managers in India: An Analysis. *Journal of Accounting, Finance and Auditing Studies* 2(4), 172-194.
- 8) Pandow, B. (2016). Selection Abilities of Select Indian Mutual Fund Managers. *Global Journal of Management And Business Research*, 16(8).
- 9) [www.amfiindia.com](http://www.amfiindia.com)
- 10) [www.mutualfundsindia.com](http://www.mutualfundsindia.com)