“Stock Selection Abilities and the Market Timing Skills of Fund Managers”: A Study With Reference To Banking Sector Funds in India

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ABSTRACT

Mutual fund industry in India facing lots of issues and challenges such as the agents and the sales executives of the Mutual funds assure higher returns to the investors and the management paint a rosy picture about the Mutual funds while marketing schemes. In the present study the performance of banking sector fund is evaluated in terms of stock selectivity abilities and market timing skills of fund manager. We have used Jensen’s measure, Fama’s Net selectivity model and Treynor and Mazuy’s Model. The study indicates that majority of Mutual fund Managers did have sufficient market timing ability. In case of net selectivity. With regards to market timing skills, the entire portfolio managers were able to position their portfolios based on market movements. The Fund Manager of Sundaram Financial Services Opportunities could be credited with the highest correct market followed by Sahara Banking and Financial Services and Reliance Banking Fund. Other funds such as ICICI Pru Banking & Financial Services, UTI-Banking Sector and Religare Invesco Banking also showing positive t-statistic estimates.

Keywords: Mutual Funds, Performance Evaluation, Banking Funds

Acronyms: Net Asset Value (NAV), Unit Trust of India (UTI), Bombay Stock Exchange(BSE), Jensen’s Alpha (JA), Fama’s Net Selectivity Measure (FNSM), Treynor and Mazuy Model (TMM)

1. INTRODUCTION

The financial services in India have undergone revolutionary changes over the years and had become more sophisticated, in response to the varied needs of the economy. The process of financial sector reforms, economic liberalization and globalization of Indian Capital Market had generated and augmented the interest of the investors in equity. Though the investors today are having knowledge about stock market dealings due to the Securities Exchange Board of India (SEBI) awareness programs etc., but lack of professional expertise, the common investors are still hesitant to invest their hard earned money in the corporate securities. The advent of mutual funds Mutual fund has helped in garnering the investible funds of this category of investors in a significant way. As professional experts manage MFs, investment in them relieves investors from the emotional stress involved in buying and selling of securities.

The Mutual fund industry in India has passed through several distinct phases namely, formation of UTI (Unit Trust of India) in 1964, entry of public sector funds in 1987 and then the entry of the private sector funds in 1993. The fourth phase is marked by the bifurcation of UTI into two separate entities in February 2003 viz., Specified Undertaking of the UTI and the UTI mutual fund Limited. In the later part of nineties, the industry has also gone through some degree of consolidation through mergers and acquisitions. Over the years, Mutual funds have redefined the financial landscape of investors in India. There are several different ways an investor can diversify a portfolio, such as the different categories, several different asset classes etc., but another common way to diversify is between the various sectors of the economy. This is usually accomplished with Mutual funds that concentrate in one of the major sectors.
Feature of the sector is that it invest in the securities of only those sectors or industries as specified in the offer documents. The returns in these funds are reliant on the performance of the respective sectors/industries. The point is fund managers are bullish on most sectors, which makes a solid enough situation for a sector allocation. While no one is signifying that pushing all the eggs in one basket is a worthy idea, a well-thought out portfolio approach, combining the benefits of diversification as well as a limited allocation to choice sectors with a positive outlook may be worth a try.

The banking sector is very much connected with the economy of the country. The GDP growth for the financial year 2013 was predictable at 7.6 per cent, so the economy is anticipated to improve and be back on the growth track in FY13. But Indian economy had recorded 5 percent growth in 2012-13. Stating that the basics of the Indian economy are strong, as Prime Minister Manmohan Singh has said GDP will progress in the second half of fiscal 2013 -14 and that the government is commitment to get back to a sustainable growth rate of 8-9 per cent. This will also result in the banking space witnessing an emission in growth in business next fiscal year.

Currently, Indian banks face several challenges, such as increase in interest rates on saving deposits, possible deregulation of interest rates on saving deposits, a tighter monetary policy, a large government deficit, increased stress some sectors such as, State utilities, airlines, and microfinance, restructured loan accounts, unamortised pension/gratuity liabilities and increasing infrastructure loans. With the advent of the process of liberalisation in the early ’nineties, the demands on banks’ resources and capabilities increased as banks had to match the challenges of being financial service providers in a globalised, competitive environment.

This posed a dual challenge for the banking industry. The first challenge was to manage the growing needs of their existing customer segments and business locations for better and more efficient services, and the second was, how to expand the reach of their services and business beyond the traditional services and locations, which had large socio-economic implications because large parts of the population did not have access to even basic banking services. Increased use of information technology emerged as the key to meeting these challenges. Several measures were mooted at the level of the Government, the Reserve Bank of India (RBI) and industry, which provided an impetus to adoption of technology in the banking sector.

2. STATEMENT OF A PROBLEM

Various studies show that Mutual fund industry in India facing lots of issues and challenges in present days. Some of the major issues related to the performance are the agents and the sales executives of the Mutual funds assure higher returns to the investors and the management paint a rosy picture about the Mutual funds while marketing schemes. The Mutual funds in our country have been quite wrongly promoted as an alternative to equity investing and created very high expectations in the minds of the investors. The ignorance of the investors about Mutual funds coupled with aggressive selling by promising higher returns to the investors have resulted into loss of investors’ confidence due to inability to provide higher returns.

Also Sondhi and Jain (2006) assessed the stock selectivity skills of fund managers using Jensen’s Alpha (JA) and revealed that performance of open – ended Mutual funds were better than close ended Mutual fund also size wise performance analysis showed that small size equity Mutual funds performed better vis-à-vis medium and large funds and performance based on ownership pattern revealed differential rate of return amongst the various ownership categories. Kader and Kuang (2007), Vangapandu Rama Devi (2011)and Santhi&BalanagaGurunathan (2012) used popular models such as JA, TMM index in their different studies and they examined risk – adjusted performance, selectivity, timing ability and performance persistence. The empirical study of 60 growth and growth– income Mutual fund schemes in India done by Sehgal and Jhanwar (2008) results suggested that the evidence on selectivity improved marginally when higher frequency data such as daily returns are used instead of monthly returns.

A number of studies have been carried out to evaluate the investment performance of Mutual funds in India. But there are only few studies that focus on the performance of sector based funds in
India. One of which is the performance evaluation of pharma funds in India by Shanmugham and Zabiulla (2009). The present study evaluated portfolio manager’s performance is in terms of stock selectivity skills and market timing abilities. There were few studies conducted on banking sector funds which were undertaken on banking sector funds for period less than one year. Hence the present study has been made to analyse the performance of selected banking funds in India for at least four years and to examine the efficiency of the fund managers in their selectivity and timing skills.

3. OBJECTIVE OF THE STUDY
The objective of the study is to appraise the stock selection abilities and the market timing skills of Mutual fund Managers.

4. HYPOTHESES
Based on the above objectives, the following hypothesis were set.

\[ H_0^1 = \text{There is no significant relationship between fund performance and the stock selection ability of fund manager.} \]

\[ H_0^2 = \text{There is no significant relationship between fund performance and the market timing skills of fund manager.} \]

5. METHODOLOGY OF THE STUDY
5.1. SOURCES OF DATA AND PERIOD OF THE STUDY
The study is based on the secondary data. For evaluating the performance the requisite daily NAV (Net Asset Value) was obtained from Bloomberg database. The daily Bombay Stock Exchange (BSE) Sensex benchmark return was collected from prowess database provided by Centre for Monitoring Indian Economy (CMIE). In this study the yield on the 91-day treasury bills of Government of India has been used as surrogate for riskless return. The weekly published data of T-Bill rate is taken from RBI source and converted in daily average risk free rate. The present study covers a period of four years spanning from 1st April 2009 to 31st March 2013. For the purpose of analysis, benchmark portfolio and other macro-economic factors were collected for the same period. The data for the Banking sector funds collected for the period are subject to limitations such as continuous operation for the years under study and hence final sample restricted to six banking sector funds.

5.2. SAMPLING DESIGN
Multi-stage sampling technique is used for the study and the different stages followed are mentioned below:

The total of 21 Equity banking sector funds are reduced to 19 since funds come under Dividend categories are ignored.

Among the 19 funds since 11 funds are launched recently after 2012 are also ignored. Final sample constitutes 6 actively traded funds with availability of complete data required for the study for the study period. Our final six sample funds are mentioned as below:

Table 1: Sample Banking Sector Funds

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Fund</th>
<th>Launch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICICI Pru Banking &amp; Financial Services (ICICIPBFS)</td>
<td>7-Aug-08</td>
</tr>
<tr>
<td>2</td>
<td>Reliance Banking Fund(RBF)</td>
<td>22-May-03</td>
</tr>
<tr>
<td>3</td>
<td>Religare Invesco Banking (RIB)</td>
<td>17-Jun-08</td>
</tr>
<tr>
<td>4</td>
<td>Sahara Banking and Financial Services (SBFS)</td>
<td>26-Aug-08</td>
</tr>
<tr>
<td>5</td>
<td>Sundaram Financial Services Opportunities (SFSO)</td>
<td>16-May-08</td>
</tr>
<tr>
<td>6</td>
<td>UTI-Banking Sector (UTIBS)</td>
<td>7-Apr-04</td>
</tr>
</tbody>
</table>
5.3. RESEARCH METHOD FOR ANALYSIS
Daily NAV values of the sample schemes for the study period were used for analysis. BSE sensex index was considered as a benchmark and the yield on the 91-day treasury bills of Government of India has been used as surrogate for riskless return. Eviews 6, analysis package is used for estimations.

Appropriate ratios as stated below are used to measure the performance.

a. Fama’s Net Selectivity Measure (FNSM)

b. Treynor and Mazuy Model (TMM)

6. LIMITATIONS OF THE STUDY

- The study is based only on secondary data which were collected from CMIE Prowess Package, Bloomberg. The quality of the study depends purely upon the accuracy, reliability and quality of secondary data.
- The funds chosen for the study are restricted to 6 due to the facts like non-availability of data and less period of operation of funds.

7. RESULTS:

7.1. JENSEN’S ALPHA (JA)

Jensen (1968) developed a return – generated model for evaluating the performance of managed portfolios relative to a benchmark. JA is popularly known as ‘alpha’. The measure is based on CAPM and reflects the difference between the return actually earned on a portfolio and the return the portfolio was supposed to earn, given its systematic risk (beta). The specification of the JA is given by the following equation:

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

Alpha measures the portfolio manager’s performance relative to benchmark while beta measures its systematic risk. A positive alpha shows that the fund has performed better and has outperformed the market; while a negative alpha suggests that the fund has underperformed as compared to the market. An alpha estimate of zero indicates that the fund has just performed what it is expected to. Table 3 presents the results of JA for the whole period of study from 2009-2013. The analysis of Table 2 reveals that ICICIPBFS has posted highest positive alpha as a whole, followed by RBF. It indicates that these two funds have outperformed the market for the period 2009-13. All other funds also recorded positive alpha value during the study period. As mentioned earlier a positive and statistically alpha estimate of two funds shows that these funds have earned average premium above expected market return at the same level of risk of the fund. There is no Negative alpha value for any of the banking Fund. It indicates that there is no such poor performance shown as a whole for period 2009-13 in banking funds. As all the funds which has positive alpha has performed better and has outperformed the market. It is evidenced from the results of the Table 3. Hence it is proved that the sample Banking funds provide superior returns as against BSE sensex during the study period 2009-13.

Table 2: RESULTS OF JA FOR THE PERIOD 2009-13

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Fund</th>
<th>Alpha</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICICI Pru Banking &amp; Financial Services</td>
<td>0.0499</td>
<td>0.0219</td>
<td>2.2787</td>
<td>0.0229</td>
</tr>
<tr>
<td>2</td>
<td>Reliance Banking Fund</td>
<td>0.0429</td>
<td>0.0239</td>
<td>1.7897</td>
<td>0.0738</td>
</tr>
<tr>
<td>3</td>
<td>Religare Invesco Banking</td>
<td>0.0305</td>
<td>0.0221</td>
<td>1.3832</td>
<td>0.1669</td>
</tr>
<tr>
<td>4</td>
<td>Sahara Banking and Financial Services</td>
<td>0.0388</td>
<td>0.0231</td>
<td>1.677</td>
<td>0.0938</td>
</tr>
<tr>
<td>5</td>
<td>Sundaram Financial Services Opportunities</td>
<td>0.0209</td>
<td>0.0237</td>
<td>0.8849</td>
<td>0.3764</td>
</tr>
<tr>
<td>6</td>
<td>UTI-Banking Sector</td>
<td>0.0316</td>
<td>0.0244</td>
<td>1.2991</td>
<td>0.1942</td>
</tr>
</tbody>
</table>

7.2. FAMA’S NET SELECTIVITY MEASURE (FNSM)
Eugene Fama provides for an analytical framework, which enables for a detailed analysis of scheme performance popularly known as Fama’s Decomposition of Total Return. The total return on a portfolio constitutes of risk-free return ($R_f$) and excess return. The excess return arises from different factors such as risk accepted and stock selection. The excess return can be decomposed into two components, namely risk premium (reward for bearing risk) and for stock selectivity (return from stock selection). The Fama’s Net Selectivity Measure (FNSM) Index indicates that the excess return obtained by the manager is not because of investing in the market portfolio. It compares the extra return obtained by the portfolio manager with a specific risk and the extra return that could have been obtained with the same amount of systematic risk. Selectivity involves forecasting the prices of individual stocks and identification of individual stocks that are undervalued or overvalued in comparison with the equity stocks in general.

According to FNSM, the return of a portfolio consist of risk-free rate of returns and risk premium, where the risk premium includes the reward for risk – bearing and reward for stock selection. The ‘net selectivity’ component of FNSM model measures the true stock selectivity skills of the fund managers. The net selectivity of the portfolio is estimated using the following Equation:

$$\text{Net Selectivity} = \left( R_p - R_f \right) \frac{\sigma_p}{\sigma_m} \left( R_m - R_f \right)$$

Table 3 presents the results of FNSM for the whole analysis period 2009-2013. The table shows that all the Banking Funds have posted a positive value for net selectivity. The highest value was found for ICICI Pru Banking & Financial Services (0.0439), thus indicating superior performance over the other funds followed by Reliance Banking Fund (0.0359) and Sahara Banking and Financial Services (0.0324) which are also performed well. Sundaram Financial Services Opportunities (0.0146) has recorded the lowest value reflecting poor selectivity skill of the fund manager when compared to all other funds during the period. There is no negative net selectivity value shown during the analysis period as a whole from 2009-2013. The overall analysis demonstrates that in general, Managers of almost all the sample funds proved their efficiency in selecting the correct stock during the study period. This is clear from the positive Reward for net selectivity ratio. The Fund Managers are successful in positioning their portfolios based on market fluctuations during the study period.

Table 3: Results of Stock Selectivity Measure for the Period 2009-2013

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Banking funds</th>
<th>Reward for net selectivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICICI Pru Banking &amp; Financial Services</td>
<td>0.0439</td>
</tr>
<tr>
<td>2</td>
<td>Reliance Banking Fund</td>
<td>0.0359</td>
</tr>
<tr>
<td>3</td>
<td>Religare Invesco Banking</td>
<td>0.0244</td>
</tr>
<tr>
<td>4</td>
<td>Sahara Banking and Financial Services</td>
<td>0.0324</td>
</tr>
<tr>
<td>5</td>
<td>Sundaram Financial Services Opportunities</td>
<td>0.0146</td>
</tr>
<tr>
<td>6</td>
<td>UTI-Banking Sector</td>
<td>0.0248</td>
</tr>
</tbody>
</table>

7.2.1. Testing of Hypotheses
The testing of correlations between fund performance and the stock selection ability of fund manager. It is evidenced from the results that the sample schemes displayed positive significant relation to their performance and the stock selection ability of fund manager. Hence the hypothesis – 1, "There is no significant relationship between fund performance and the stock selection ability of fund manager." is rejected. Therefore the alternative Hypothesis would be
There is a significant relationship between fund performance and the stock selection ability of fund manager.

### 7.3. TREYNOR AND MAZUY MODEL (TMM)

Treynor and Mazuy (1966) proposed a model to examine the market timing abilities of fund managers. Market timing involves assessing the market movements and positioning the portfolios accordingly. TMM is an extension of Jensen’s single index model and incorporates a quadratic term in it. The specification of the model is given below:

\[ R_p - R_f = \alpha + \beta (R_m - R_f) + \gamma (R_m - R_f)^2 + e_p \]

The value of the parameter ‘\( \gamma \)’ acts as a measure of the market timing abilities of the fund manager. It is to be noted from the Table 4 that all the six sample schemes were significantly related to their market timings under conditional TMM at 5% level. It is clear that the Fund Manager of Sundaram Financial Services Opportunities could be credited with the highest market timing skill and followed by Sahara Banking and Financial Services and Reliance Banking Fund. Other funds such as ICICI Pru Banking & Financial Services, UTI-Banking Sector and Religare Invesco Banking also showing positive t-statistic estimates.

Thus the results from the estimation of TMM reveals that the portfolio managers of most of the Banking funds appears to engage in market timing but they were successful as they times the market correctly. They are successful to position their portfolios based on market fluctuations. This is evident from the statistically significant and positive t-statistic estimates. Thus, the null hypothesis of sample Banking fund managers exhibiting distinct market timing skills is accepted at 5% level of significance.

The observation emerging from the overall analysis is that Indian Banking Fund Managers have successfully performed with their market timing ability.

<table>
<thead>
<tr>
<th>Sl.No</th>
<th>Fund</th>
<th>Beta Coefficient</th>
<th>Std error</th>
<th>t-statistic</th>
<th>Gamma Coefficient</th>
<th>Std error</th>
<th>t-statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ICICI Pru Banking &amp; Financial Services</td>
<td>1.0081</td>
<td>0.0176</td>
<td>57.3113</td>
<td>0.0049</td>
<td>0.0027</td>
<td>1.8407</td>
</tr>
<tr>
<td>2</td>
<td>Reliance Banking Fund</td>
<td>1.0088</td>
<td>0.0183</td>
<td>54.9817</td>
<td>0.0125</td>
<td>0.0028</td>
<td>4.4782</td>
</tr>
<tr>
<td>3</td>
<td>Religare Invesco Banking</td>
<td>1.0163</td>
<td>0.0169</td>
<td>59.8527</td>
<td>0.0026</td>
<td>0.0026</td>
<td>1.0047</td>
</tr>
<tr>
<td>4</td>
<td>Sahara Banking and Financial Services</td>
<td>1.0311</td>
<td>0.0181</td>
<td>56.9559</td>
<td>0.0153</td>
<td>0.0028</td>
<td>5.5586</td>
</tr>
<tr>
<td>5</td>
<td>Sundaram Financial Services Opportunities</td>
<td>1.0897</td>
<td>0.0185</td>
<td>58.8904</td>
<td>0.0187</td>
<td>0.0028</td>
<td>6.6381</td>
</tr>
<tr>
<td>6</td>
<td>UTI-Banking Sector</td>
<td>1.0997</td>
<td>0.0195</td>
<td>56.4012</td>
<td>0.0038</td>
<td>0.0029</td>
<td>1.2659</td>
</tr>
</tbody>
</table>

### 7.3.1. TESTING OF HYPOTHESES
The testing of correlation between fund performance and the stock selection ability of the fund manager. It is evidenced from the results that the sample schemes have displayed negative significant relation to their performance and the stock selection ability of fund manager. Hence the hypothesis – 2, "There is no significant relationship between fund performance and the stock selection ability of fund manager." is accepted.

8. FINDINGS AND SUGGESTION

FNSM shows that all the Banking Fund have posted a positive value for net selectivity. The highest value was found for ICICI Pru Banking & Financial Services (0.0439), thus indicating superior performance over the other funds. Testing of correlation between fund performance and the stock selection ability of fund manager shows there is a significant relationship between fund performance and the stock selection ability of fund manager.

TMM market timing ability Model shows that all the six sample schemes were significantly related to their market timings however that the Fund Manager of Sundaram Financial Services Opportunities could be credited with the highest correct market timing and enjoyed the highest correct market timing ability. Testing of correlation between fund performance and the stock selection ability of fund manager resulted that the sample schemes displayed negative significant relation to their performance and the stock selection ability of fund manager.

Mutual funds operations utilized the public money of investors. Hence Fund Managers have to use this public money in a proper way and distribute reasonable returns to investors. Fund Managers must find the portfolio allocation under risk and returns proposition. After that they have to select the stocks for fund allocation. In general, high level of risk provides high returns. Hence Fund Managers are advised continue to select the correct stocks according to the expectations of investors. It is true that the market movement affects the Equity Mutual fund Performance. Hence the Fund Manager should continue to change their portfolio to suit the market conditions. The present study indicates that majority of Mutual fund Managers did have sufficient market timing ability. Hence Fund Managers must continue with skill of spotting out the correct market timings. The stock selection ability is the primary qualification of Fund Managers. They are advised to take more care while selecting the stocks according to the fund characteristics to provide continuous improvement in future. In the present scenario, many national and international factors affect the functions of Capital Market and Mutual fund Institutions. Hence it is advisable for Fund Managers to know these factors while taking any decision favorable to investors.

9. CONCLUSION

The performance of six banking funds were examined in terms of the stock selectivity abilities and examining the manager’s market timing abilities. In terms of net selectivity ICICI Pru Banking & Financial Services have shown superior performance over the other funds reflecting that these fund managers have taken diversifiable risk that is compensated by additional returns followed Reliance Banking Fund and Sahara Banking and Financial Services. The testing of correlation between fund performance and the stock selection ability of fund manager shows there is a significant relationship between the variables.

With regards to market timing skills, the entire portfolio managers were able to position their portfolios based on market movements. It is clear that the Fund Manager of Sundaram Financial Services Opportunities could be credited with the highest correct market timing and enjoyed the highest correct market timing ability of Fund Manager followed by Sahara Banking and Financial Services and Reliance Banking Fund. Other funds such as ICICI Pru Banking & Financial Services, UTI-Banking Sector and Religare Invesco Banking also showing positive t-statistic estimates. The testing of correlation between fund performance and the stock selection ability of fund manager resulted that the sample schemes displayed negative significant relation to their performance and the stock selection ability of fund manager.
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