1.1 Background of the Study

Mutual funds played a very important role in financial markets and investment portfolios since a very long period of time and in last 10 years its popularity among the investors has touched new height. It can be observed from the global rise in assets managed under mutual funds. Mutual fund investors are one of the largest institutional investors in many developed and developing economies and they are also the majority stock holder in capital markets. Reason why mutual funds are preferred over others is the fact that they are diverse, they are convenient, they are flexible and they are professionally managed. At the same time they are very important for the equity market because most of the mutual funds are held by institutional investors and they have holding of capital assets in market majorly. Thus mutual funds are working towards economic growth of country.

According to modern portfolio theory there is a risk relationship between expected returns and investments. It also works and uses the efficient market hypothesis (EMH) theory and this theory states that prices of stocks and equity are reflecting information fully. This poses a challenge for such research works that are assessing mutual funds and their pattern of shifting performance of mutual funds from the computation of grossly calculated returns to thorough examinations of the risk and returns methods. Lately most of the studies on mutual funds are focusing more on performance of the mutual funds. A few studies also
try to figure out the model which is being used to evaluate the mutual funds. Other research scholars studied how fund managers try to manage their funds and create wealth for the investors. They also try to study and forecast the factors which tend to dominate mutual fund performances. Different research methods and research approaches are employed by researchers to understand mutual fund performance from different viewpoints and they are using different data sets as well.

However one thing which needs to be mentioned here is that most of these studies are done in developed markets because of presence and availability of various market data. In emerging and developing markets mostly studies which do not need much data or minor studies are conducted. Most of these studies still tend to focus on performance of fund managers and other important issues are neglected. It is because of this lack of information a little information is available mutual funds and investment in emerging markets.

Even with this limited information and lack of proper understanding of mutual funds in emerging markets, they are turning out to be the best performers as their investment base is growing significantly. In many developing markets mutual funds as a preferred choice of investment and are growing faster than the developed markets. Growth rate and performance of a mutual fund is very important because it determines the shape of capital market and at the same time it helps in developing and implementing regulatory policies of market.

Similarly mutual funds in the emerging markets tend to display different characteristics than then developed markets and this also changes the assumptions which are taken in the developed market. For example in a developing markets or emerging market mutual funds are less competitive and even information regarding their performance is not available widely and publicly. Investors are not working on mutual funds in an aggressive and pro active manner and they tend to make their final call on the basis of how
familiar they are with the mutual funds. In a few emerging markets and economies mutual funds are becoming a part of the national financial policy creation, which makes them very different than the mutual funds in developed markets in styles and performance approach. In India, for instance government provides various tax benefits to the mutual funds who are indulged in long term savings and retirement pension funds. This would directly impact the performance of mutual funds as they are free from tax liability and it would reflect on their performance and in turn will modify the behavior of investors in favor.

It is also important to understand here that theoretical model which are used to understand the mutual funds and evaluate their performance are based on efficient market hypothesis which is close to developed markets but it is very different from emerging and developing economies. In emerging markets all the theoretical assumptions which are made on the basis of market return and market behavior theories tend to fail and there are various problems which they face in long term like high volatility levels, higher cost of trading, abnormality and abrupt trading frequency (Bekaert and Harvey, 2002).

Such studies are needed in developing economies since long time and it would also help in understanding that some sample testing should be done and existing business model should be challenged which can lead towards evolution of innovative pragmatic models. This research project aims to study mutual funds which are invested in an emerging market, India and make emphasis on performance of the funds and determinants of those performance.

Although characteristics of developing markets of mutual funds are highly diversified still India can be selected as a market which will represent a lot of attributes of an emerging market especially of Asian markets. Stock markets of India are exhibiting behaviors which are in alignment with the average emerging markets. Similarly, Indian
mutual funds also tend to play a critical role in capital markets. Indian economy is one of the fastest growing markets globally.

1.2 Aims of the study

The primary aim of this research work is to explore the ways in which a mutual fund performs in emerging markets. This study aims to examine the impact of various mutual fund attributes and develops hypotheses as to their effects on mutual fund performance. This research project would help in filling the existing vacuum of research projects in this subject and areas. In this project a comprehensive and exhaustive data set would be used of mutual funds in India. Indian market would act as a case study to represent developing markets all over the world.

1.3 Contributions of the study

This study has contributed to the currently available literatures and will even prove beneficial if applied practically. As this study is quite different in context of its unique setting from the studies conducted so far, it can be considered as an out of sample test for the available literature. This study also provides answers to few uncovered topics. Mutual funds in developed markets has been studied and explained extensively but same is lacking in mutual funds in emerging markets. Thus, this study can be considered as a step ahead as it has tried to find out whether the findings of developed and emerging markets are related.

Another contribution of this study is that it has been done extensively by using ample data base. In India, a very novel mutual dataset was employed by us that were having a quarterly data of equity diversified open ended mutual funds. For instance, in order to determine the return of risk adjusted mutual funds for every year from 2003 to 2013, we have considered fund quarterly data, that has given us an opportunity to perform
multidimensional regression method by converting quarterly data into panel data. Thus we were able to study fund characteristics in deep finding new and useful results.

Next contribution is that this thesis has used new methods to study emerging markets that have never been used so far. Just for example, panel data regression is used to find out the determinants affecting the performance of risk adjusted mutual funds in market. This method gives an opportunity to study multiple factors at one time without impacting their effect on each other. It has also helped in determining the factors that affect the performance of fund in statistics as well as economic context giving better results.

Through this study, new issues and topics have been studied in deep that were not covered till date. In this study, multiple factors were considered like portfolio concentration in analysis and portfolio composition and thus, many new results and facts have been emerged regarding mutual funds in emerging markets that were unknown till now.

Last but not the least contribution of this thesis may be in practical aspect that it would help in better selection of mutual funds to general population as well as institutional investors. It may also prove beneficial to the fund managers in assessing their status and position financially as well as assist them in following new strategies that would enhance their as well as their investors’ returns.

1.4 Methodology of the study

While doing this study analyzing performance of mutual funds, we have followed a step by step quantitative procedure. In that we have done literature review, identified the research problem, collected data, and then we have analyzed data and interpreted them to draw final conclusions. One general research topic is decided then literature review would be done using different sources like journals, published papers, books, articles etc. After
that proper research questions are designed and hypothesis is framed for the research paper. The empirical models are formulated on the basis of the formulation in the literature review.

1.5 Organization of the study

Total six chapters are developed in this thesis. Chapter one is the introduction chapter which is the general background of the thesis. It provides an overview of the entire project and its aims.

Chapter Two describes the background of mutual funds worldwide and in India. The chapter makes note of the growth and characteristics of the global and the Indian mutual funds and also presents significant statistical data that draws up a clear picture about the potential of mutual fund as an investment instrument and its significance in capital formation. This chapter ends with highlighting future prospects of the mutual fund industry in India.

Chapter Three critically reviews the literature on mutual fund performance. The chapter begins with the performance measures proposed in the literature, together with empirical results for developed markets. Further key problems associated with the performance of the mutual funds are reviewed.

Fourth chapter sketches the detailed methodology followed in carrying out this research project. After presenting the rationale for research and the carefully drawn research questions based on the detailed literature review, the chapter outlines the research objectives and hypotheses to be tested. This is followed by the research design, sampling and details of data collection and computations.

Chapter Five presents the analysis of results using the methodology presented in Chapter 4. In this chapter the hypothesis are tested with the help of collected data and on Gretl 1.9.92 software packages. Further, it presents verification of the model and its
adequateness for the statistical analysis. Firstly, this chapter presents descriptive statistics of each mutual fund attribute. Next, the beta coefficients, the standard errors, and the regression statistics are presented, when regressed against the category-adjusted returns outlined earlier. Third, the correlation coefficients are presented to determine whether multicollinearity exists. Fourth, the t-test is used to determine the statistical significance of each of the hypotheses. Lastly, other findings such as the F-test and an examination of the R2 and Adjusted R2 are presented.

Chapter Six presents the interpretation of the results from various steps by relating them to the theoretical reviews and finally develops conclusions on the basis of empirical evidences. This chapter includes guidelines for investors for selecting a mutual fund for investment based on the findings of this study. At last, this chapter suggests several ideas and scope for initiating more research projects in future.

1.6 Definition of Terms

In this section different word, phrases, concepts that have specialized meaning and they are applicable with in this dissertation.

Mutual Fund Management Team Average Tenure: this is defined as the number of years current manager is managing the funds and portfolio. In case there are more than one manager then average tenure is used.

Efficient Market Hypothesis (EMH): according to this hypothesis all the information which is available in the market is already known to all parties involved and it is reflected immediately in the stock prices. According to this theory market cannot be beaten because of the efficiency of stock market and share prices are always incorporating
all the changes and information which is available in the market. It is one of the highly disputed and challenged theories of market movements and there are many instances of market movements which are defying this theory.

Mutual Funds: Mutual funds can be explained as an investment company which buys an array of stocks and shares under the guidance of a professional portfolio manager. These mutual funds have specific goals and objectives in consideration which makes them focused in their approach. A mutual fund is also known to be ready to buy their units back according to their Current Net asset value. NAV is the total market value of the entire investment portfolio of mutual fund after reduction of the instabilities on the basis of total number of units.

Mutual Fund Performance (Total Return): this term is used to express the total return which is realized by the end of each month. It is normally expressed using percentage system and assessment of change in monthly net asset value of the portfolio. Reinvestments are also done which are made using a concept called Actual reinvestment NAV and the daily payoffs are reinvested on a monthly basis as well. (Morningstar, glossary)

Persistence: persistence is the phenomenon which can determine if mutual fund performance would be sustainable with time or not.

Asset Management Company: a company or a corporation which contains partners or a single owner that invests the pooled amount of mutual funds. This investment is made in securities and shares. There are different types of registered investment companies like Mutual Fund Company, unit investment trust companies, closed end funds, exchange traded funds etc.
Sharpe Ratio: Sharpe ratio is explained as the risk adjusted measure which was developed by Prof. William Sharpe and he was a noble laureate. Sharpe Ratio uses excess return and standard deviation to assess per unit risk and rewards. Higher Sharpe ratio would reflect into better performance of the mutual fund in risk adjusted manner. Once it is calculated monthly then it is merged into a year level ratios for assessment.

Total Number of Holdings: different numbers or types of holdings of a fund are total number of holdings. This figure is used as a measurement criterion to assess portfolio risk. If this figure is low specifically if the figure is lower than the fund is considered to be more concentrated and only a few companies or issues are involved in it. This means fund would be less susceptible to the market fluctuations. This number can be used to understand the diversification of mutual fund in a better way. (Morningstar, glossary).

1.7 Assumptions

In any research project, there exist assumptions that limit the amount of variables to be examined and, more importantly, give the model explanatory power. This study assumes the following:

1. That there was seamless exportation of data from ACE MF database of Accord Fintech Pvt. Ltd. into MS Excel and further into Gretl, providing accurate data manipulation and reporting.

2. That the data collected conforms to the assumptions of an OLS regression model, B.L.U.E. – best linear unbiased estimator.

3. Regression model is confirmed by the data provided specifically 1. All predictor variables should be categorical and quantitative in nature, unbounded and continuous as well (b) there should be some variation in the value of predictors as
well. (c) Linear relationship between two or more predictors should not be perfect in any case. i.e., that the independent variables are not too strongly correlated (multicollinearity), (d) The residuals should have a constant variance (homo scedasticity), (e) Independent error consideration – for any two observations, the residual terms should be uncorrelated and that the errors are normally distributed, and (f) the relationship being modeled is linear in parameters (Field, 2005, pp. 169-170).

4. That since Accord Fintech Pvt. Ltd. is a for-profit company that licenses its data to institutional investors and researchers, data provided from ACE MF database is valid, reliable and accurate.

5. That it is virtually impossible for an OLS regression model to be free from multicollinearity. This paper chooses the conservative viewpoint on multicollinearity, which is detailed later in this study.

1.8 Limitations of the Study

Due to cost and time considerations, this study is limited in a number of ways. First, efforts were made to obtain all observations recorded by ACE MF database, and hence, information concerning the entire population of actively managed equity mutual funds in a given year; however, this study only examines the past nine years’ worth of data. More data could have been gathered from third party agencies, but at much higher costs, which could not be afforded at this time.

Second, some observations lack some of the relevant data such as expense ratios, or PE ratio. A sincere attempt has been made to extract the missing data from the fact sheet of the respective fund that is available on the website of the AMC. Also, efforts have been made to compute the missing data in all the cases wherein the base data is available for its
calculation. If neither of the above mentioned attempt is possible then these observations are dropped from the dataset used for the analysis.

Third, although every effort has been made to ensure that the export of data from ACE MF database into the Gretl package’s spreadsheet is seamless and without error, there arose some problems with some data that had to be hand-keyed into the spreadsheet. Therefore, with manually entered data, there exists a certain margin of error.

Fourth, this study only examines mutual fund performance as a function of its reported attributes such as management tenure, expenses, turnover, and size. For example, some studies measure how the compensation of fund managers may affect mutual fund performance. Although this may be noteworthy in its own right, the compensation system and fund manager salaries are not available to the public. The aforementioned variables that this study examines, however, are available to the lay investor through mutual fund prospectuses or for a fee from third party reporting agencies. Likewise, this study does not examine commissions and sales fees. Although the research in regard to commission schemes is sparse, commission schemes are publicly available and it is a noteworthy attribute for examination. However, the actual commissions paid by investors are not made public, and therefore are not examined. Lastly, this study only examines actively managed equity mutual funds similar to those used in past research, because passively managed mutual funds (i.e. index funds) rely on prescribed investment parameters and not the manager’s expertise in selecting securities. Therefore, this study does not examine sector-focused funds, thematic funds, index funds, bond funds, fixed income funds, or money market funds.