PROJECT REPORT (17MBA407) ON

A STUDY ON RISK AND RETURN ANALYSIS OF EQUITY MIDCAP MUTUAL FUNDS AT KARVY STOCK BROKING LIMITED DAVANGERE

BY

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1AY17MBA36

Submitted to

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI

In partial fulfilment of the requirements for the award of the degree of

MASTER OF BUSINESS ADMINISTRATION

Under the guidance of

INTERNAL GUIDE	EXTERNAL GUIDE
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March 2019

KARVY STOCK BROKING

Ref: No. KSBL/Proj/2018-19

Date: 28th Feb 2019

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Prashant Jodage** – bearing **USN: 1AY17MBA36** an MBA student of Acharya Institute of Technology, Bangaluru-560107, had done an Internship / Project Report entitled **"A STUDY ON RISK AND RETURN ANALYSIS OF EQUITY MID CAP MUTUAL FUNDS"** at Karvy Stock Broking Private Limited, during the period 03th January 2019 to 16th February 2019 in our Davangere Branch under the guidance of Mr.Harish C H – Deputy Manager. KSBL, Davangere.

He has completed the project work and submitted the report on the same.

We wish him all the best in his future endeavors.

For Karvy Stock Broking Pvt Ltd

Mr.Harish CH

Deputy Manager KSBL Davangere.

KARVY STOCK BROKING LTD
376/2,4th Main, 8th Cross,
Opposite Byadgi Shettar School,
J. Extension, DAVANGERE-577002
No: 258711/11/12/13/14

ACHARYA INSTITUTE OF TECHNOLOGY
(Affiliated to Visvesvaraya Technological University, Belagavi, Approved by AICTE, New Delhi and Accredited by NBA and NAAC)

Date: 04/04/2019

CERTIFICATE

This is to certify that **Mr. Prashant Jodage** bearing USN **1AY17MBA36** is a bonafide student of Master of Business Administration course of the Institute 2017-19 batch, affiliated to Visvesvaraya Technological University, Belgaum. Project report on **"A Study on Risk and Return Analysis of Equity Midcap Mutual Fund at Karvy Stock Broking Ltd, Davanagere"** is prepared by him under the guidance of **Prof. Mallika B K,** in partial fulfillment of the requirements for the award of the degree of Master of Business Administration, Visvesvaraya Technological University, Belagavi, Karnataka.

4/4/19

Signature of Internal Guide

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Signature of Principal/Dean Academics

Dr. Devarajaiah R.M.
Dean-Academics
ACHARYA INSTITUTE OF TECHNOLOGY
Bengaluru-107.

DECLARATION

I, **PRASHANT JODAGE** hereby declare that the Project report entitled **"A STUDY ON RISK AND RETURN ANALYSIS OF EQUITY MIDCAP MUTUAL"** with reference to "**KARVY STOCK BROKING LIMITED**" Davangere prepared by me under the guidance of **Prof MALLIKA B K**, faculty of M.B.A Department, Acharya Institute of Technology and external assistance by **MR HARISH.CH** Manager of Karvy Stock Broking Limited Davanager .I also declare that this Project work is towards the partial fulfillment of the university Regulations for the award of degree of Master of Business Administration by Visvesvaraya Technological University, Belagavi. I have undergone a summer project for a period of Twelve weeks. I further declare that this Project is based on the original study undertaken by me and has not been submitted for the award of any degree/diploma from any other University Institution.

Place: Bangalore

Date 10/4/2019

Signature of the student

ACKNOWLEDGEMENT

I wish to express my sincere thanks to our respected Principal, **Dr.Prakash M R,** beloved Dean-Academics**, Dr. Devarajaiah R M**, and deep sense of gratitude to **Dr. M M Bagali**, HOD, Acharya Institute of Technology, Bengaluru for their kind support and encouragement in completion of the Internship Report.

I would like to thank **Prof MALLIKA B K,** Asst. Professor, Department of MBA, Acharya Institute of Technology, Bengaluru and external guide **Mr. HARISH.CH** Manager of Karvy Stock Broking Limited, Bengaluru, who gave me golden opportunity to do this wonderful Project in the esteemed organization, which helped me to learn various concepts.

Finally, I express my sincere thanks to my Parents, Friends and all the Staff of MBA department of AIT for their valuable suggestions in completing this Project Report.

Place: Bangalore PRASHANT. JODAGE

Date: USN: 1AY17MBA36

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EXECUTIVE SUMMARY

An Equity midcap Mutual fund is a scheme in which investor invest their money for a common financial goal. The collected money invests in the capital market, debt and the money market, the profit earned by these investments are shared by the investors in the apportionment of their number of shares.

Karvy stock broking private limited. Is one of the main private areas in money related administrations. The organization has confirmed riches administrators, Mutual store and protection advisors perceive by the National Stock Exchange (NSE), Bombay Stock (BSE) Exchange and Association of Mutual Fund of India (AMFI).

This study tells about the equity midcap mutual fund by taking ten companies as suggested by the financial advisor of Karvy Stock Broking PrivateLimited.

To focus on the main strength of the Karvy they have one software Zeus, where all the stocks are traded under one particularsoftware and this software maintained their client's transactions properly. Last year that is in 2017-18 the growth of the mutual fund industry is almost 40%-50% high. So people who are investing in the mutual fund can get high return.

The main objective of the study is analyzing the risk and return of the selected equity midcap mutual funds. The research methodology is totally based on the secondary data. Tools used for the study Standard deviation, Beta, Sharpe's ratio, Treynor's ratio, Jensen's ratio and correlation. This study has some limitations like the data collected for limited period and it does not cover other financialproducts.

From the study it was found that L&T midcap fund has high return compared to all other selected equity midcaps so it is advisable for investors. Except HSBC all the funds are less volatile than the market. The study says that both Index and selected equity midcap funds are positively correlated.

Therefore the study says that before investing in any mutual fund schemes the investors should analyses the track record of the scheme and also they should know whether the mutual fund scheme performing well or not.

CHAPTER-1

1.1 INTRODUCTION

Project work is a part of academic activity of Visvesvaraya Technological University, Belgaum. It is an initial to bridge the gap between the knowledge and its application through a series of invention to the student of MBA program that enable to achieve knowledge and explore to the industry.

A meaningful six week project has exposed me to the corporate culture at KARVY STOCK BROKING LIMITED at Devanagere. This project training served as the right platform to implement the theoretical imbibed concepts in a best possible way.

It was interesting to learn in an organization like KARVY STOCK BROKING LIMITED. This is committed with the society's wellbeing and ethical standards. All though the human resources are grouped into various levels of responsibility, the company keeps an open door policy to encourage free intrapersonal interaction which I believe is real strength of any organization. It exposed to the quality of work culture, timelines and cooperativeness in the company.

The interaction with the company gave an insight and a first experience of the industrial scenario in the competitive environment outside the realms of the company. Learnt how to interact with customers, how to behave with the superiors, subordinates, and how to retain the customers. It helps students to apply their skill in practical field under the guidance of experienced practitioners.

It helps to learn company ethics, organization behaviour, rules, provision, etc., once the students finish the academy students can easily fit to the companies by learning norms through this project program. It boosts confident level among the students. This program adds academic value and ability to earn academic credit. It also gives the opportunity to make valuable future jobs.

All together it was a good learning experience to carry the project in the company like KARVY STOCK BROKING LIMITED and I thankful to all the people who have helped to complete my project, without which the project would not have been success.

1.2 INDUSTRY PROFILE

Securities Market:

Securities market helps in transferring of assets from people with unmoving assets to people who have a productive requirement meant from them. To state properly, securities markets make available networks for distribution of funds to ventures and in this manner these two exercises. As result, the savers and financial specialists are definitely not inhibited by their separate capacities, but by the economy's capacities to invest and save respectively, which certainly improves investment in the economy.

The securities show case has two commonly subordinat portions:

1. Primary Market
2. Secondary Market.

Primary Market:

This was issued by the company for increasing new capital generating on the investors by creating initial public offers(IPO) or rights problems or proposals aimed to sale the equity or debenture.

Secondary Market:

It makes available liquidity to the securities, over trade and settlement on the stock exchanges. It works through two ways that are Over the Counter (OTC) market and Trade Exchanged Business sector. OTC markets are the agreeable kind of business sectors where exchanges are talked about and under standardized. In this sort of business sector, the securities are exchanged and settled together through the counter. Indian markets have known OTC trade like the OTCEI; be that as it may they don't give numerous volumes. The additional decision of exchanging is over the stock trade way, wherever exchanging and settlement is done by means of the stock trades and the purchasers and dealers don't have any acquaintance with each other. The exchanges performed on the trade are settled over the clearing company, who executes as middle person and insurance settlement.

1.3 COMPANY PROFILE

KARVY was started as Karvy& Company by 5 well experienced charted accountants on the year 1979-1980 at Hyderabad India. At the time it was confined only to audit and with capital of 150000 Rupees. It achieves first milestone after first investment in technology. But now Karvy Group is a premier integrated financial services provider, ranked among the top 5 in the country across its business segments. The group serves 70 million individual investors in various capacities, and provides investor service to over 600 corporate houses. Karvy Group is an Indian multinational enterprise. It has 460 branches, (over 935 offices) covering in excess of 400 cities and towns of India, Dubai and New York with extra of 320 than franchisees the nation over.

Karvy covers the whole range of money related administrations, viz., Stock Broking, Depository Participant, appropriation of monetary items (counting common assets, security and fixed stores), products broking, individual account warning administrations, dealer banking and corporate fund, riches the board, NBFC, among others.

The Karvy Group is today a well- diversified conglomerate. Its business straddles the entire financial services spectrum as well as data processing and managing segments. Since most of its financial services were retail focused, the need to build scale and skill in the transaction processing domain became imperative. Also duringvstressedvenvironment in the financialvservices segment, the non-financialvbusiness brings in avlot of the group's business.
Another key feature of Karvy has been its ability to offer leading edge advice based on incisive ideas that are strongly rooted in high quality research on every conceivable aspect of investments be it equities, Forex, commodities, bonds, fixed returns, debt instruments or any other investment grade asset class.

The customer has always been at the centre of every Karvy initiative. Karvy has a professional management group and ranks the best in innovation, operating mainly, in research of several industrial segments.

1.4 PROMOTRS & MANAGEMENT TEAM

- Mr.C.Parthasarthy — Chairman
- Mr.M.Yugandhar — Managing director
- Mr.M.S.Ramakrishna — Director
- Mr.V.MaheshManaging — Director
- Mr.V.Ganesh — CEO
- Mr.P.B.Ramapriyan — CEO,Distribution&Allied Business
- Mr.Rajiv.R.Singh — CEO,StockBroking
- Mr. Deepak Gupta — Group Head- HR
- Mr.G.Krishna Hari — Group head, Finance

1.5 Mission : To be the leading and preferred service provider to our customers, and we aim to achieve this leadership position by building an innovative, enterprising, and technology driven organization which will set the highest standards of service and business ethics.

Vision: Strive to be the leaders and experts through hour processes, people and technology offering the unique blend that delivers superior value by establishing and maintaining the highest levels of services and professionalism.

QUALITY POLICY

"To achieve and sustain market leadership, Karvy shall aim for complete customer satisfaction, by combining its human and technological resources, to provide world class quality services. In the process Karvy shall strive to meet and exceed customer's satisfaction and set industry standards.

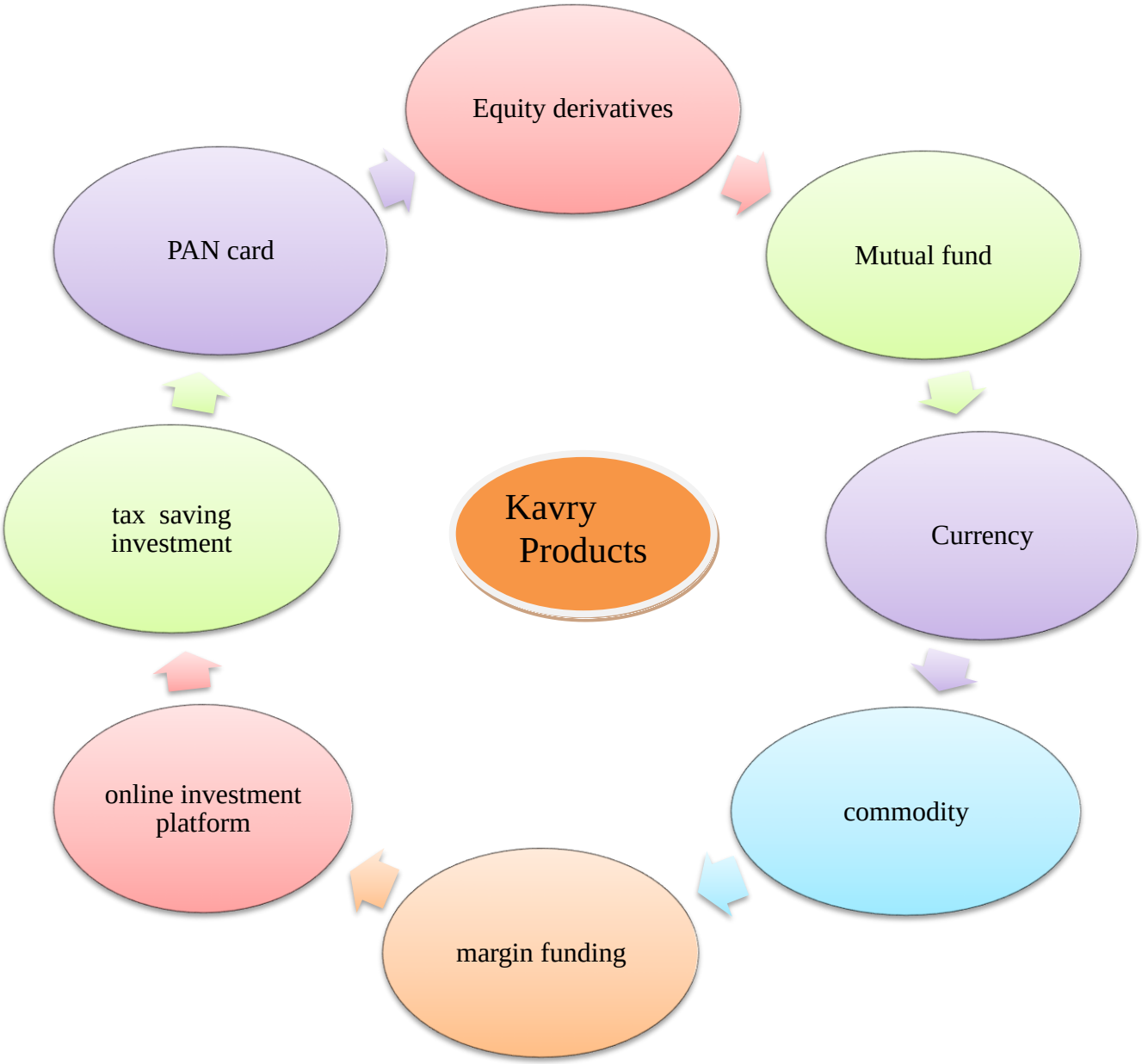
Objectives

- Maintainand assessin house processesthat will sustaintransparent andharmonious relationshipwith clientsand customersto provide worldservices
- Aimto setindustry standardsin customerrelations by wayof establishing/reinforcingits human& technologicaland suit customizedneeds of ourclients
- Establishpartner relationshipwith our businessassociates/ clients,investors,other Customersservice agentsand vendors, whichwould help inbuilding customer, confidence.
- Providehigh qualityof worklife for allour employeesand equipthem withadequate knowledge &skillsso as tomeaningfullyrespond to customersneeds
- Usestate of artinformation technologyin developingnew and innovativeproducts andservicesit meet the changingneeds of ourcustomers andclients
- Striveto be a reliablesource of valueadded supporton products andservices offered and constantlyguide individuals andinstitutions in marking a judiciouschoice of the same
- Aimto become aleader in the areas of activatesbeing undertaken , bysetting standardsinefficiencyand responsiveness,therebyexceeding levelsof customersatisfaction
- Striveto keep allstake –holders (Shareholders,clients,investors, suppliers,customers, regulatoryauthorities andemployees)andbusiness associatesproud andsatisfied

VALUE ADD SERVICES

- Ask the expert:-Resolve your stock queries intentlythrough an online interactive session with research analysts.
- Live chart:-Discuss your service related query directly through live chart for effective support solutions.
- Advisory service:-Our team of 400+ trust equity assist you in making informed investment decisions.
- Research Reports:-More than 270 companies reports published by our fundamental research team for efficient research & analysis.
- Mobile App:-Making trading easy. Effective and enjoyable. Available on ions. Android and windows.
- Advance calculators:-Calculate margin across sectors to make your money to its full potential.

1.6 PRODUCTS OFFERED



PRODUCTS/ SERVICE PROFILE

Products Provided by the Karvy:

- **Equity:**
  Karvy site (karvyonline.com) offers different choices while exchanging values, for example, Delivery, Day exchanging, Buy Today Sell Tomorrow (BTST), After Market Order (AMO), Market Order, Limit Order, Cover Order, Basket Order and Bracket request.
- **Future and Options:**
  This instrument is a great tool for speculation and its provides a good leverage opportunity.

- **Currency:**
  Money Derivatives has additionally risen as an imperative and new resource class for financial specialists
- **Commodity:**
  Commodities are goods that are normally used as inputs in production of other goods and services.

- **Mutual Funds:**
  Karvy provide a platform to invest in Mutual Funds in a hassle-free,simple and convenient manner

- **Exchange Trading Funds:**
  Exchange Traded Funds or ETFs are securities that are traded, like individual stocks, on an exchange.

- **Margin Funding:**
  The funds that brokerages arrange to finance investors share purchases.

- **IPOs:**
  An Initial Public Offer (IPO) is the selling of securities to the public in the primary market.

- **NCDs / BONDs:**

Non-convertible debentures (NCDs) are debentures which cannot be converted into equities or shares.

- **Fixed Deposits:**

  Company fixed deposit is a deposit in company for a fixed rate of return over a fixed period of time.

1.7 AREAS OF OPERATION

Karvy Stock Broking Limited being private financial services provider and brokerage firm operates well in national and also in international market. Karvy Stock Broking Limited is an individual from the National Stock Exchange of India and the Bombay Stock Exchange. With more than 6 Lakhs dynamic records, it positions among the main 5 Depository Participant in India, enrolled with NSDL and CDSL. Karvy has 935 workplaces more than 27 states crosswise over India and abroad at Dubai and New York Only player with full range of products and services well succeed.

Branches of Karvy in India:

States	No of office
1. New Delhi	29
2. Andhra Pradesh	48
3. Assam	12
4. Bihar	34
5. Chhattisgarh	1
6. Daman and Diu	4
7. Goa	1
8. Gujarat	55
9. Haryana	25
10. Himachal Pradesh	9
11. Jammu& Kashmir	4
12. Karnataka	67
13. Madhya Pradesh	21
14. Maharashtra	125
15. Odessa	36
16. Rajasthan	18
17. Punjab	35

18. Telangana	50
19. Tamilnadu	51
20. Uttar Pradesh	143
21. Uttaranchal	23
22. West Bengal	54

1.8 Major Competitors Of Karvy

Karvy serves a tremendous scope of every single money related item like administrations, Mutual Funds, Bonds, Insurance and so on.., so every one of the organizations who offer these administrations are the contenders of the Karvy. There are numerous contenders for Karvy on this premise and practically every one of them offer the administrations which Karvy offers.

1. Share Khan Limited
2. Angel Broking
3. Kotak Securities Limited
4. ICICI Securities Limited
5. Religare Limited
6. India Inflame Limited
7. Royal Bank Of Scotland
8. Reliance Money Limited
9. Fidelity Investments Limited
10. Bonanza

1.9 SWOT ANALYSIS

SWOT Analysis is a study undertaken by organizations to identify internal strengths, weakness, as well as its external opportunities and threats. The method of SWOT analysis is to collect the data from an environmental analysis and separate into external (opportunities and threats) and internal issue (strengths and Weakness). Once the identification of SWOT is done, it determines out what might help the firm finishing its goal, and what impediment must be overcome accomplish coveted results.

Strength

- Highly qualified, Co-operative and experienced branch managers working in the company.
- Company using updated software (Zeus) to maintain client's transactions properly.

- Employees are highly empowered.
- Strong communication network.
- Number one dealers of investm0ent products in India.
- Number 1 recorder and move specialist in India.
- Differentiated products
- Good Brand image.
- Customers are Loyal.
- Company quickly adapt the new technology.

Weakness

- No access to rural market.
- Lack of distribution networks.
- High employee turnover

Opportunity

- Positive outlook of people towards mutual funds.
- Earnings of urban youths.

Threats

- Government Rules and Regulations
- Large number of financial giants presents in this field.
- Increasing number of local players

1.10 FUTURE GROWTH AND PROSPECTS

Knowledge and Research Resources

Constitution:

- Experience and comprehensive research team in Hyderabad and Mumbai more than 35 members strong research team for equities and exclusive research team for commodities futures.

Operational Verticals:

- Research on multiple verticals as well as report generation for ad-hoc research requirement, generation and distribution of up to date and active calls for our customers and affiliates in various market segments (cash and future/options) and calls issued on multiple verticals-intraday recommendations positional calls and hedge strategies.

1.11 FINANCIAL STATEMENT

Balance Sheet as on year ending March 2016, March 2017 & March 2018:

PARTICULARS	31/03/2016	31/03/2017	31/03/2018
	AMOUNT	AMOUNT	AMOUNT
A) EQUITY AND LIABILITIES:			
1.SHAREHOLDERS' FUNDS:			
Share capital	1,110,000,000	782,500,000	1,210,000,000
Reserves and surplus	2,539,241,649	3,463,692,412	4,560,485,500
	3,649,241,649	**4,246,192,412**	**5,770,485,500**
2.NON-CURRENT LIABILITIES			
Long term borrowings	8,762,597,606	11,378,586,523	12,958,857,525
Other long term borrowings	9,828,122	306,860	1,200,120
Long term provisions	42,131,076	56,520,512	67,658,821
	8,814,556,804	**11,435,413,895**	**13,027,716,466**
3.CURRENT LIABILITIES			
Short- term borrowings	4,935,487,346	3,989,717,431	4,050,214,421
Trade receivables	-	-	-
-Total outstanding due to micro and small enterprises	-	-	-
-Total outstanding due of creditors other than micro and small enterprises	17,632,738	51,311,710	89,400,508
Other current liabilities	4,840,336,464	5,097,350,005	7,045,452,210
Short- term provisions	86,032,502	101,239,496	150,254,851
	9,879,488,988	**9,239,618,642**	**11,335,321,990**
TOTAL (A)	**22,343,287,441**	**24,921,224,949**	**30,133,523,956**
B) ASSETS			
1.NON-CURRENT ASSETS			
-Tangible assets	66,279,336	72,975,088	98,870,881
-Intangible assets	22,186,359	25,838,570	30,820,532
-Intangible assets under development	1,979,552	6,073,552	10,107,112
Non-current investment	106,552	106,552	178,457

Differed tax assets, net	24,262,206	56,384,123	78,745,545
Long term-loans and advances	14,269,955,972	16,213,848,986	19,258,785,125
Other non-current assets	875,368	1,035,731	1,985,731
	14,385,645,345	**16,376,262,602**	**19,479,493,374**
2.CURRENT ASSETS			
Current investment	9,070,101	-	2,435,178,663
Cash and bank balance	227,904,500	734,472,317	1,112,521,342
Short term loans and advances	6,774,509,796	6,730,188,681	5,990,785,323
Other current assets	946,154,699	1,080,301,349	1,115,545,254
	7,957,642,096	**8,544,962,347**	**10,654,030,582**
TOTAL (B)	**22,343,287,441**	**24,921,224,949**	**30,133,523,956**

Profit and loss account for the year 31st March 2016, 31st March 2017 and 31st March 2018:

PARTICULARS	31/03/2016	31/03/2017	31/03/2018
	AMOUNT	AMOUNT	AMOUNT
1.REVENUE			
Revenue from operations	3,579,787,839	3,520,365,793	4,702,482,678
TOTAL REVENUE (A)	**3,579,787,839**	**3,520,365,793**	**4,702,482,678**
2.EXPENSES			
Operating expenses	199,509,616	183,110,197	170,252,112
Employed benefits	355,013,826	404,784,405	392,173,550
Finance cost	2,093,317,852	2,338,148,652	2,980,540,425
Depreciation and amortisation	35,940,504	26,320,626	19,740,469
Other Expenses	307,960,750	387,126,733	510,451,220
TOTAL EXPENSES (B)	**2,991,742,548**	**3,339,490,613**	**4,073,157,776**
PROFIT BEFORE TAX (A-B)=(C)	**588,045,291**	**180,875,180**	**629,324,902**
3.TAX EXPENSES			
Current tax	(212,435,733)	(96,998,960)	(97,930,995)
Differed tax	10,435,408	32,121,917	45,458,541
TOTAL TAX EXPENSE	**202,000,325**	**64,867,043**	**52,472,454**
PROFIT/LOSS FOR THE PERIOD	**386,044,966**	**116,008,137**	**576,852,448**
NUMBER OF SHARES	**111,000,000**	**78,250,000**	**121,000,000**
EARNINGS PER SHARE	**3.47**	**1.48**	**4.77**

Table showing Ratio Analysis of the Company

PARTICULARS	2016	2017	2018
Current Ratio	0.81	0.92	0.94
Net Profit Ratio	10.78	3.29	12.27
Debt/Equity Ratio	2.40	2.68	2.25
Current Assets Turnover Ratio	0.45	0.41	0.44
Total Asset Turnover Ratio	0.16	0.14	0.1

INTERPRETATION:

Current Ratio:

Current ratio increased in the 2018 compared to 2016 and 2017 i.e. 0.94. It shows increase in liquidity position and there is sufficient of working capital and the position is satisfactory. And also it shows the company is better financial strain.

Net Profit Ratio: Net profit ratio increased in the year 2017 compared to 2016. It shows company is able to control its cost.

Debt/Equity Ratio:

Debt equity ratio has gradually decreased that shows the company has paid off its debt in the year 2018.

Current Assets Turnover Ratio:

Current asset turnover ratio increased in the year 2018 compared to 2017 it shows that the company is more efficient it indicates the company is using its assets efficiently to generate sales.

CHAPTER-2
CONCEPTUAL BACK GROUND AND LITERATURE REVIEW

2.1 THEORETICAL BACKGROUND OF THE STUDY

Investment

Investment comprises of employment of funds with an object of attaining additional income or progress in values.

Investment is also called as allocating money to assets with a view to again profit over a period. An investment decision is a trade-off between the risk and return.

Objectives of investment

1. Protection of capital
2. Current pay
3. Current development
4. Total return
5. Liquidity
6. Hedge against inflation

Investment process

An investment process describes that, how an investor should go about the decision making about the marketable securities in which they invest, and how extensively the investment should beamed when the investment should be made.

Five steps in investment process:

1. Set investment policy
2. Execute security analysis
3. Construction of portfolio
4. Review the portfolio
5. Appraise the performance of portfolio

Introduction to Indian mutual fund industry

Mutual fund industry came to Indian stock market in the year 1963. Mutual fund was formatted by UTI and came with the initiative of government of India and RBI. Mutual fund has mainly four stages that are mentioned below:

1. First Stage:1964-1987 (Establishment of UTI)
2. Second Stage:1987-1993 (Entry of public sector)
3. Third Stage1993-2003(Entry of private sector)
4. Fourth Stage: Since 2003

About Mutual Fund

A mutual fund refers to the collection of funds who saved by the little speculators, put them in government and other corporate securities and procure return through interest and profits, other than capital addition.

The hazard and benefit exchange off demonstrates that if financial specialists is eager to go for broke with the goal that he can anticipate an exceptional yield, if the speculators relate to bring lower risk devices he will get less returns.

The shared store industry was started in India in the year 1963 with the development of UTI (joined trust of India) at the creativity of Government of India and Reserve Bank of India. In 1987, SBI common store turned into the first Non-UTI shared reserve in India.
Later in 1993 foreshown a new period in the mutual fund sector. This was striking by the entry of private companies in mutual fund sector. Later SEBI Act passed in 1992, the SEBI Mutual Fund Regulations originated into existence in the year 1992. Then the mutual fund companies have sustained to grow exponentially with foreign organisations opened a centre in India, with the help of Joint ventures and acquisitions.

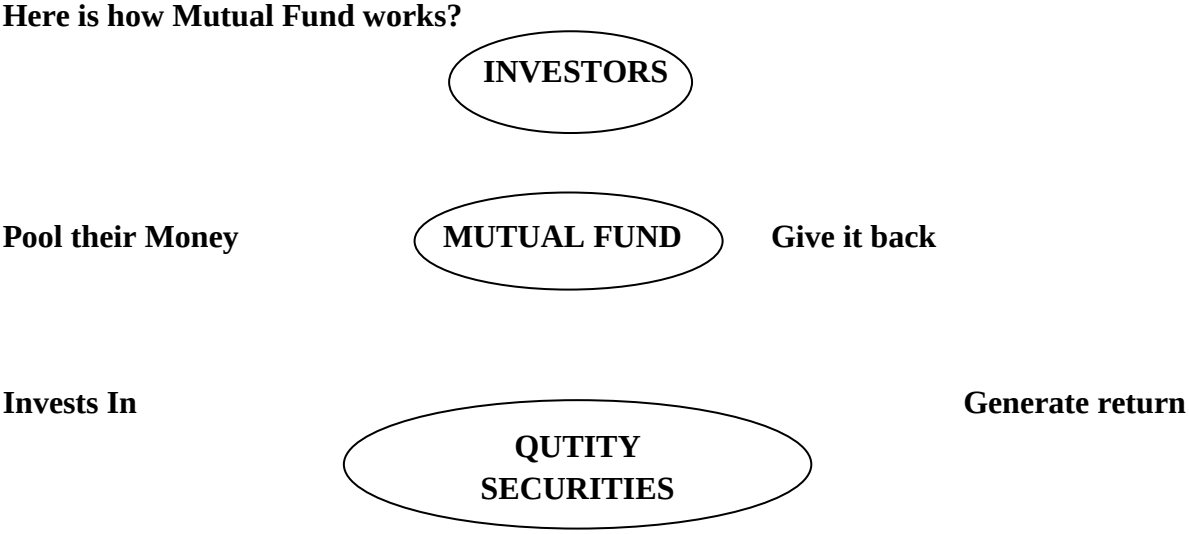
MUTUAL FUND

A mutual fund is a process that collects the savings from their income of some investors, who ready to share a financial goal. The amount that, what collected from the investors is then invested in capital market instruments like shares, stocks, debentures and in other securities. The return get by these investments and the capital appreciations realised are shared by investors in proportion of their investment. Thus, a mutual fund is the most suitable investment for the common peoples and it attracts investors to invest in diversified, professionally managed securities at an economical cost.

Definition:

According to SEBI (Mutual Fund) Regulation 1993 defines a mutual fund "A fund established in the form of a trust by a sponsor, to raise the money by the trustees through the sale of units to the public under one or more schemes for investing in securities in accordance with these regulations

Here is how Mutual Fund works?



Mutual fund helps the investors to invest in capital market instruments through Systematic investment Plan (SIP) so that the investors can invest from their savings to get the profit on the invested fund, if any return get from these investments, it should be shared among the investors on their shareholding capacity. Now days it is the best and most appropriate investments for the investor and it provides an opportunity for the common people or for an investor investor to invest in a diversified and professionally managed securities at affordable expense.

A fund manager, who uses his management skills to attract the investors, manages every mutual fund and obligatory study works to get more return that an in vestor try to manage with its own.

Advantages of investing in Mutual fund

1. Mutual fund is a professional investment management.
2. As compare others it is very low cost of transaction.
3. It can liquidate easily.
4. The investor has a tax benefit.
5. It is very convenient and flexible to investor.
6. The risk can be diversified.

Disadvantages of investing in mutual fund

1. Dilution while investing in mutual funds
2. Complicated costs
3. Tax situation

TYPES OF MUTUAL FUND

Mutual funds can be classified into following categories:

On the basis of structure:

1. Open ended fund
2. Close ended

On the basis of investment objective:

1. Growth funds
2. Income funds
3. Balanced funds
4. Money market funds

On the basis of special schemes:

1. Industry specific schemes
2. Index schemes
3. Sectorial schemes

At present 44 AMCs are working in Indian Mutual Fund Industry and out of which around 20 companies are proposing equity midcap fund schemes. Now whether these schemes are performing well or not is a question, hence the present study is being done to assess the enactment of these mutual fund schemes, this study has used 10 midcap mutual fund schemes to assess their risk level and return performance.

Mid-caps schemes are the mutual fund schemes, and they are invested in small or medium sized companies. It doesn't contain any standard definition for the companies' classification into small or medium sector. The companies with a market capitalisation or market value (number of shares * market price of share) of up to Rs.5 billion (500crores) are categorized as small. Moreover, the companies that have market capitalisation from Rs.5 billion (500crores) to Rs.10 billion (1000crores) are classified as medium size.

RETURN

Return is the essential propelling power that determines venture. It speaks to the reward for undertaking venture.

Components of returns are current return and capital return

Current return:

Is the occasional pay, for example, profit or premium, created by the speculation. It is estimated as the occasional salary in connection to the starting cost of the venture.

Capital return:

Is reflected in the price change it is simply the price appreciation (or depreciation) divided by the beginning price of the asset.

Therefore Total return = Current return + Capital return

RISK

Risk refers to the possibility that the actual outcome of an investment will deviate from its expected outcome.

- Possibility of loss or injury
- Variability of return
- The degree or probability of loss

Components of risk are systematic risk and unsystematic risk

Systematic Risk:

Systematic risk caused by the external factors of the company it is uncontrollable by the company.

Unsystematic risk:

Unsystematic risk caused by the internal factors of an organisation that affects a particular business.

Tools used for analysis:

- **Average return:**

  It is a change between present price and previous price.

  Return = [(Today's price – Yesterday's price) / Yesterday's price] * 100

- **Standard Deviation:**

Standard deviation is nothing but a total risk includes both Systematic and Unsystematic risk, it tries to measure the variability of returns from the expected value.

Standard Deviation (σ) = $\sqrt{\frac{(R-Ra)^2}{n-1}}$

[R= Return, Ra= Average Return]

- **Beta:**

The concept of beta for measuring the riskiness of a stock is, if an investor selects stock with low betas (i.e., (beta<1), then the investor will suffer less in a falling market. Of course, at the same time investor will also stand to gain less than the market average in rising market.

In case an investor is prepared to take greater risk then he can choose stock with higher betas (beta>1) in order to gain more than the market average in a rising market. At the same time the investor should be prepared to lose more than the market average, in case the market crashes. However, it is desirable to choose stocks with betas varying between 0.5 and 1.5.

Beta (β) =$(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

[Rm= Market Return, Rma= Average Market Return]

- **Sharpe's Ratio**

Sharpe ratio is the tool used to measure total hazard balanced return of a money related portfolio. A portfolio with a higher Sharpe proportion is viewed as better relative than its funds. Sharpe proportion is likewise a proportion of abundance portfolio return over hazard free rate in respect to its standard deviation .Ordinarily, the 90 days Treasury bill rate is taken as the proxy for risk free rate.

Sharpe's Ratio (σ) =$Ra - Rf/\sigma$

- **Treynor's Ratio:**

Treynor ratio shows the systematic risk adjusted performance of the fund. Here the denominator is the beta of the portfolio. Thus, it takes into account the systematic risk of the portfolio. In other wordsTreynor's Ratio processes a return per unit of market risk (i.e. systematic risk) that is generated from the investment what we made. Strictly speaking, the higher of value of Treynor's measure the best fund or scheme. However, we would like to have some benchmark with which to compare our individual Treynor's measures.

  - Treynor's Ratio (β) = $Ra - Rf/\beta$

- **Jensen's Ratio:**

Jenson ratio is used to measure the unsystematic risk adjusted performance of a security in relation to the expected market return. The higher the alpha, the more a portfolio has earned above the level predicted. It is otherwise called Jensen's Performance Index and Jensen measure.

Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

- **Correlation:**

  Correlation describes the degree of relationship between two variables (either positively or negatively) and recycled in advanced portfolio management. Perfectly positively correlation involvesthat in the event that one security moves either up or down the other security moves a similar way. Perfectly adversely connection implies that on the off chance that one security moves in a single bearing, the other security moves inverse way. On the off chance that the relationship is zero, the exercises in the securities stay expected to have no course.

- Correlation $(r) = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$

2.2 LITERATURE REVIEW

1.Ratish Gupta and ShrutiMaheshwari (2017)

"An Empirical Study on Performance of Diversified Equity Mutual Funds with Special Reference to Large cap and Midcap Funds"

In this study the author has evaluated the risk and return of the various large cap and mid cap funds using financial performance evaluation techniques like Sharpe measure, Treynor,R2, Standard deviation and beta. Selected funds are compared to their respective market index. In order to analyse their ability to outperform the benchmark and also asses risk of investing in these schemes. The result of the study tells that small investors can expect a double digit returns if they keep a healthy ratio of large cap and mid cap funds in their portfolio

.

2. Dr.M. Ravichandran and T.Iswarya (2016)

"A Study on Performance of Risk and Return on Selected Mutual Funds"

In this study tells that a proper evaluation measure will remove confusion and help small investors to choose about level of investment in many mutual fund schemes, so as to maximise the returns. The main objective of the study is to study and analysis the five year annual growth return given in their schemes. Methodology used for the study is based on only secondary data. Tools used for the study Sharpe, Treynor and Jenson models. The performance of risk based mutual fund scheme

using CAPM. The result of the study tells that in the long run the private and public sector companies have performed better than the public sector

3. Antonella Basso and StefeniaFunari (2016)

"The Role of Fund Size in the Performance of Mutual Funds Assessed With DEA Models"

In this study the author says about the job of the extent of common assets in the assessment of the reserve execution with an information envelopment examination (DEA) approach, with the point of contemplating the issue from various edges with various specialized devices and looking at the nearness of a positive or negative size impact in shared store advertise. Creator utilized DEA model to assess the job of store estimate. At end of the examination creator presume that European common assets are expanding its size.

4. M. Gowri and MalabikaDeo (2016)

"Performance Evaluation of Equity Oriented Growth and Dividend Funds of Mutual Funds in India: An Application of Risk Adjusted Theoretical Parameters"

This study attempted assesses the execution of reserve assets based on hazard balanced strategies. The execution of reserve of assets were contrasted and the hazard free returns just as the (BSE 100), it was taken as the intermediary for the market returns. Tests were gathered through AMFI sites and AMC sites from April 1, 2007 to March 31, 2014 and returns were determined from the separate plans NAV cost. The philosophy utilized in the investigation is hazard balanced apparatuses of Sharpe proportion, Treynor proportion, and Jensen alpha. Result of the study tells that the performance of fund of funds had posted a negative Sharpe, Treynor and Jensen.

5. Vinita Bharat Manek (2016)

"A Study on the Effect of Portfolio Turnover on Mutual Fund Performance in the Indian Financial Market"

The main of this study is to explore the significance of portfolio turnover on common reserve return which would give a sign to speculators on the most proficient method to put resources into assets dependent on the executives way. In this investigation just open finished enhanced development arranged value reserves are contemplated.

Statistical tool used for the study is Quantitative measure. The result of the study tells that portfolio turnover has a statistically significant effect on scheme returns. It is positively correlated, that is with higher portfolio turnover, and there is a possibility that manager will be able to out perform the Index.

6. Arathy B. Aswathy A Nair, Anju Sai P and Pravitha N R (2015)

"A Study on Factors Affecting Investment on Mutual Funds and its Preference of Retail Investors"

This Study aims at finding out the factors affecting investment decision on mutual funds and its preference over retail investors. Also aims at finding about the factors that prevent the people to invest in mutual funds. Methodology used for a study is based on primary data it is collected through questionnaire and personal interview. Sample size of the study is limited to 200 investors. The result of the study is mutual fund have emerged as one of the important class of financial intermediaries which cater to the retail investors.

7. SonalBabbar and Sanjay Sehgal (2015)

"Mutual Fund Characteristics and Investment Performance"

In this study author examine the role of fund characteristics in determining mutual fund performance in India. Methodology used for the study is based on only secondary data. The sample size of the study is evaluated by taking 237 open ended Indian equity (G) schemes during the period April 2007 to March 2013. Using daily dividend adjusted net asset values (NAVs). The result of the study tells that based on fixed effects estimator, show that the size of fund, growth in size of fund and NAV negatively affect one period ahead risk adjusted performance in India, while age of fund has a positive impact

8.Syed Husain Ashraf and Dhanraj Sharma (2014)

"Performance Evaluation of Indian Equity Mutual Funds against Established Benchmark Index"

In this examination, an endeavour has been made to investigations the execution of value common finances industry against hazard free rate and benchmarks return over the 5 years. Technique utilized for the examination depends on just optional information. The example comprises 10 development arranged – open-finished value common store plans have a place with five open and 2 private shared reserve organizations. Consequences of the examination are tried through hazard and return investigation coefficient of variety, Treynor, Sharpe and Jensen Ratios, Fama's measure and relapse investigation. Optional information gathered for the investigation. The consequence of the examination demonstrates that Indian Asset Management Company has had the capacity to beat their benchmarks on the normal.

9. Anuj Kumar and Rahat Ali (2013)

"Financial Performance Analysis of Selected Equity Large-Cap Mutual Fund Scheme"

In this study the author has evaluated the performance of equity large cap by considering the risk and return. This risk and return is analysed by comparing with the benchmark. Objective of the study is to compare the large cap selected mutual fund companies. Methodology used for the study is based on only secondary data. The simple size of the study is evaluated by taking 10 open ended equity large cap funds along with growth scheme. The result of the study tells that ICICI prudential discovery fund- IP_ Growth, ICICI Prudential Discovery Fund- Growth, Birla Sun Life Dividend Yield plus- Growth are the top three best performing

10. Dr.R.Narayanaswamy and V. Rathnamani (2013)

"Performance Evaluation of Equity Mutual Funds"

In this investigation the creator has assessed the execution of value shared assets by considering the hazard and return relationship. This hazard and return is broke down by contrasting chosen gainful common assets and the benchmark. The fundamental target of this examination is to investigation monetary execution of chose common reserve plots through the factual parameters, for example, alpha, beta, standard deviation, r-squared and Sharpe proportion. The consequence of the examination tells that every one of the assets have performed well in the high unpredictable market development with the exception of Reliance vision.

11. Y Prabhavathi, and N T Krishna Kishore (2013)

"Investors Preference towards Mutual Fund and Future Investments"

The main aim of the study is to understand the attitude, awareness and preference of mutual fund investors. Methodology used for the study based on primary data by conducting personal interview data was collected. In the study most commonly used tools such as percentage analysis, Garrett ranking. The result of the study tells that investors ought to be cautions in selecting the schemes, sector and various asset management companies.

12. Dr.Binod Kumar Singh (2012)

"A Study on Investors Attitude towards Mutual Funds as an Investment Option"

In this study the author has evaluated the structure of mutual fund, operation of mutual fund, comparison between investment in mutual fund and bank. Objective of the study is to study and analyse the impact of various demographic factors on investor's attitude towards mutual fund. The study is basically an analytical study so it is purely based on primary research as well as also

related to the analysis of the attitude of investors. To analyse the collected data Chi-square test has been made. The study says that most of respondents are still confused about the mutual funds and have not formed any attitude towards the mutual fund for investment purpose.

13. Dr. Ravi Vyas (2012)

"Mutual Fund Investors Behaviour and Perception in Indore City"

This study focused attention on number of factors that highlights investor's perception about mutual funds by considering the risk and return. Required data collected through questionnaires. The sample size consists of 363 respondents. Tools used for the study such as Chi square test, Pearson Correlation, mean and median are used. By the study it was found that mutual funds were not that much known to investors, still investors rely upon bank and post office deposits.

14. Dr.B.Nimalathasan and Mr.R.Kumar Gandhi (2012)

"Mutual Fund Financial Performance Analysis-A Comparative Study on Equity Diversified Schemes and Equity Mid-Cap Schemes"

This study author focused on the financial performance analysis mutual fund schemes of selected banks. The objective of the study is to analysis the financial performance of selected mutual fund schemes through the statistical parameters (standard deviation, beta, and alpha) and ratio analysis (Sharpe ratio, Treynor ratio, Jenson ratio and Information ratio) Methodology used for the examination is absolutely founded on the optional information. The consequence of the investigation is among the open finished Tax Saving plans, Canara Robeco Equity Diversified is the favored and positioned top most, in the meantime among the Open finished – midcap plans, HDFC Capital developer is the favored and positioned top through different devices.

15. Shrinivas R. Patil and K.S. Prakash Rao (2011)

"An Empirical Study on Performance of Mutual Fund in India"

In this study the authors has evaluated the performance of mutual fund by considering the risk and return this risk and return is analysed by comparing with the index. The objective of the study is to understand the performance of share market and to analyse the correlation of performance of mutual funds and stock market for the year 2007-08, 2008-09 and 2009-10.Methodology used for the study is based on only secondary data. The sample size of the study is evaluated by taking top 5 mutual fund (G) and 10 index funds. Thus it is analysed by using tools such as Arithmetic mean, Standard deviation, Correlation and Testing Hypothesis.

The result of the study shows that, investors have made quite good returns in mutual funds like Reliance Vision Fund, HDFC Top-200 Fund etc.

16. Bilal Pandow (2011)

"Risk and Return Analysis of Mutual Fund Industry in India"

In this examination the creator has assessed the execution of Mutual assets by thinking about the hazard and return. This hazard and return is broke down by contrasting and the hazard free return. The reason for the examination is to break down the development and improvement of Indian common store Industry and to distinguish the difficulties facing by the business and to investigate hazard and return of chosen shared reserve in India. Technique utilized for the examination is completely founded on the optional information which was gathered from the database of Association of Mutual Funds of India for Net Asset Value (NAV).The aftereffect of study tells that the value culture has not yet grown completely in India all things considered, financial specialist training would be similarly critical for more noteworthy entrance of common assets

17. Rajesh R. Duggimpudi, Hussein A Abdou and Mohamed Zaki (2010)

"An evaluation of equity diversified mutual funds the case of the Indian market"

The main aim of this study is to evaluate the performance of Indian equity diversified mutual funds. An auxiliary point is to investigate the connection among hazard and return of these assets dependent on complete hazard and efficient hazard. Two distinctive covering informational indexes have been utilized in this examination, from 2000 to 2009, covering seventeen common assets. The assessment centres around three methods to be specific Treynor, Sharpe and the Jensen. The consequence of the investigation tells that 17 reserves have outflanked than market as far as their execution with higher returns for a given unit of hazard

.

18. Werner-Ria Murhadi and Universitas Surabaya (2010)

"Performance Evaluation of Mutual Funds"

In this study the author has evaluated the performance of mutual funds by comparing with the market. The investigation test was taken from value common subsidizes enrolled with the capital market supervisory office period February 2008-June 2009 of 68 common supports shares recorded in June 2009, information demonstrated total common finances that are 55 shared assets. Tools used for the study are Hendrickson and Merton and Treynor and Mazuy. The result of the study tells that four mutual funds have a good performance in market timing and four mutual funds have a good performance in stock selection. Both methods have a good indicator to reflect mutual funds' performance.

19. AymenKaroui and Iwan Meier (2009)

“Performance and Characteristics of Mutual Fund Starts”

Author studied the performance and portfolio characteristics of 828 newly launched US equity mutual funds over the period 1991-2005.By this study it was found that returns of fund starts exhibit higher ratios of unsystematic to total risk. Portfolio of new funds are typically also less diversified in terms of number of stocks and industry concentration and are invested in smaller and less liquid stocks.

20. Lorne N. Switzer and Yanfen Huang (2007)

“How Does Human Capital Affect the Performance of Small and Mid-Cap Mutual Funds”

In this study the author has evaluated small and mid-cap fund performance by considering the return, risk, expenses and turnover. Objective of the study is to examine whether small and midcap fund performance is related to fund manager human capital characteristics including tenure, investment, experience, education, professional training and gender. The data used for the study based on sample of 1,004 small and midcap equity funds identified on the database as of 31st December 2005.The result of the study tells that there are some systematic cross sectional differences in fund performance that can be attributed to differences in managerial human capital characteristics

CHAPTER-3

3.1 RESEARCH DESIGN STATEMENT OF THE PROBLEM

Mutual Fund Industry is a most potential area for safe investment compare to investing on stock market directly. However there will be a risk factor as Asset Management Companies (AMC) are investing the pooled funds in capital market that is on debt and equity investments. Unless thorough analysis of the mutual fund investments, investors will not come forward to invest. In this regard various parameters such as risk, return and performance of mutual fund etc. are required to considered to assess the overall performance of mutual fund. In particularly selected equity midcap category as most investors are in average income category.

3.2 NEED FOR THE STUDY

- This study helps to understand different schemes of mutual funds.
- This study helps to analyse the risk and return accompanying with the mutual fund schemes and to select the best company or the scheme for the purpose of investment.
- Positive movement in mutual fund market so this study is undertaken evaluate the performance of mutual funds.

3.3 OBJECTIVES OF THE STUDY

- To analyse the risk and return associated with the selected equity midcap mutual fund schemes.
- To measure and compare the performance of selected equity midcap mutual fund schemes with the market (NIFTY MIDCAP 100).
- To evaluate the selected equity midcap mutual fund scheme that yields the best return in the short period.

3.4 SCOPE OF THE STUDY

Total area covered in this study is analysis on risk and return of the selected mutual fund schemes by knowing the investment preference by the investors in various types of segments and also covered data analysis like selection of different schemes which are best in terms of return and to check the measure of risk and returns from the schemes.

The study will help to know the preference of the clients or investors in selecting the Asset management company, Portfolio, mode of investment, and option for getting return and so on they

prefer. The study also helpsto investor to decide a suitable and profitable scheme in shorter period. Selected mutual fund schemes performance will be evaluated with NIFTY MIDCAP 100 returns.

3.5 RESEARCH METHODOLOGY

Sources of data

1. Primary data
2. Secondary data

Secondary data:

The secondary data can be collected through

- The internet sources
- Annual report of the company
- Material provided by the company
- Fund houses
- Fact sheets, Brochures etc.

The secondary data is obtained from the various mutual fund scheme and investor's magazines and websites. Monthly fact sheets of mutual fund companies are important sources of secondary data; the data obtained is analysed using mathematical models

The secondary data obtained from various schemes such as

- Fact sheets of mutual fund companies
- Business line
- Moneycontrol.com
- Mutualfundindia.com
- Indiainfoline.com
- Finance magazines

Sampling procedure

Ten equity midcap mutual funds are considered to evaluate and compare the performance. These ten equity midcaps are selected based on the advice of stock broker (Karvy stock broking private limited).

Operational definition of the study:

Definition of Net asset value (NAV)

Net asset value (NAV) is the value of a fund's less the value of its liabilities per unit.

Calculation of Net Asset Value

NAV= Market value of Investments

+ Current assets and other assets

+ Accrued income

- Current liabilities and other liabilities

- Accrued expenses

3.7LIMITATIONS OF THE STUDY

- This study is limited only for 6 weeks.
- The study is restricted only on 8 equity midcap mutual fund.
- The data collected on each fund is maximum for 5 years.
- The study has been conducted and analysed based on the available information, which is governed by the time factor.
- The conclusion arrived on the subject is not exhaustive.

3.8 CHAPTER SCHEME

- **Chapter 1: Introduction**

First chapter of the study contains the Introduction about the project, Industry profile and Company profile, Promoters, Vision, and Mission & Quality Policy of the Company. Products or Services profile, areas of operation, Infrastructure facilities, Competitors information, SWOT Analysis, Future growth and prospects and Financial Statement of the company. (Balance sheet, Profit & loss Statement)

- **Chapter 2: Conceptual Background and Literature Review**

Second chapter describes about Theoretical background of the study, Literature review with research gap.

- **Chapter 3: Research Design**

Third chapter contains Statement of the problem, Need for the study, Objectives, Scope of the study, Research methodology, Hypotheses, Limitations, Chapter scheme.

- **Chapter 4: Analysis And Interpretation**

Fourth chapter contains Analysis and interpretation of the data which was done by using necessary tools tables and graphs

- **Chapter 5: Findings, Conclusion And Suggestions**

Chapter five is the over view of Summary of findings, Conclusion and suggestions / Recommendations of the study.

CHAPTER -4

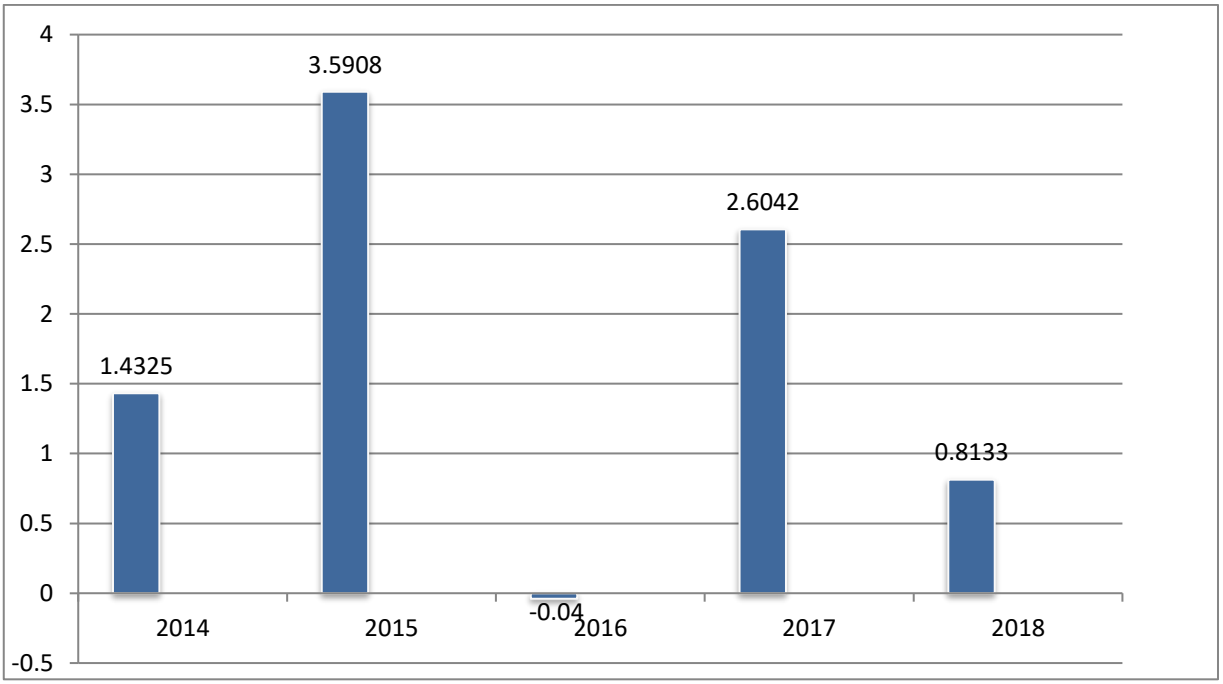
ANALYSIS AND INTERPRETATION

TABLE 4.1 CALCULATION OF RISK AND RETURN OF NIFTY MIDCAP 100

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	5.63	1.99	-2.40	3.47	5.17
2.	Feb	0.04	15.45	3.87	0.74	-3.19
3.	Mar	-6.13	9.43	-1.30	3.94	1.26
4.	Apr	-6.39	-2.33	5.53	6.92	4.43
5.	May	-4.12	2.55	-4.88	4.05	-1.28
6.	Jun	6.19	2.74	-0.57	0.27	-0.93
7.	Jul	7.67	3.70	1.96	3.24	8.12
8.	Aug	1.96	4.63	0.08	-6.32	1.62
9.	Sep	5.06	1.57	1.12	-3.73	6.22
10.	Oct	-6.58	4.29	-6.92	7.40	-1.65
11.	Nov	3.52	-0.05	-7.30	6.92	-5.39
12.	Dec	10.34	-0.88	10.33	4.35	-4.6

Year	Index Returns
2014	1.4325
2015	3.5908
2016	-0.04
2017	2.6042
2018	0.8133

GRAPH 4.1SHOWING 5 YEARS RETURN OF NIFTY MIDCAP 100



INTERPRETATION:

The above graph represents the 5 years returns of NIFTY MIDCAP 100 nothing but market return. From the above graph we can interpret that during the year 2015 high return (i.e. 3.5908) found in the market and during the year 2016 return shows negative outcome due to variations in the market. From the year 2017 we can see gradual decrease in the returns.

1. ADITYABIRLA SUN LIFE (BSL) MIDCAP FUND

Asset allocation:

Equity and equity related instruments 91.47%

Cash/call & Debt 8.51%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
Bharat Elec	Equity	2.90
Mahindra CIE	Equity	2.78
Petronet LNG	Equity	2.70
TeamLease Ser.	Equity	2.65
TI Financial	Equity	2.54

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	18.87
Manufacturing	10.39
Oil & Gas	7.22
Pharmaceuticals	6.45
Miscellaneous	6.42

TABLE 4.2CALCULATION OF RISK AND RETURN ANALYSIS OF ADITYA BIRLA SUN LIFE (BSL) MIDCAP FUND

S.NO	Month	2014	2015	2016	2017	2018
1	Jan	-5.05	0.99	3.41	5.63	-3.15
2	Feb	4.61	14.36	3.16	-0.93	-3.72
3	Mar	7.04	11.19	3.88	-1.02	-3
4	Apr	3.33	-2.31	5.86	5	-0.13
5	May	14.36	2.21	3.61	0.47	6.17
6	Jun	11.19	2.55	1.47	-1.47	-2.93
7	Jul	-2.56	6.18	2.43	6.34	0.91
8	Aug	2.21	4.94	-6.96	0.63	2.49
9	Sep	2.55	4.06	-3.34	5.5	5.5
10	Oct	6.81	3.81	6.09	-3.15	-3.15
11	Nov	4.94	1.06	3	-3.72	-3.72
12	Dec	2.84	0.05	5.68	-3	-3

Year	Return	Standard deviation	Beta
2014	1.3775	5.6152	0.8729
2015	4.0908	4.7003	0.9462
2016	-0.5558	5.6978	1.0547
2017	2.3575	3.8537	0.8436
2018	0.8567	3.7632	0.8034

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.62534

- **Standard Deviation:**

  Standard Deviation= $\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.72622

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.90416

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.21441

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.12075

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

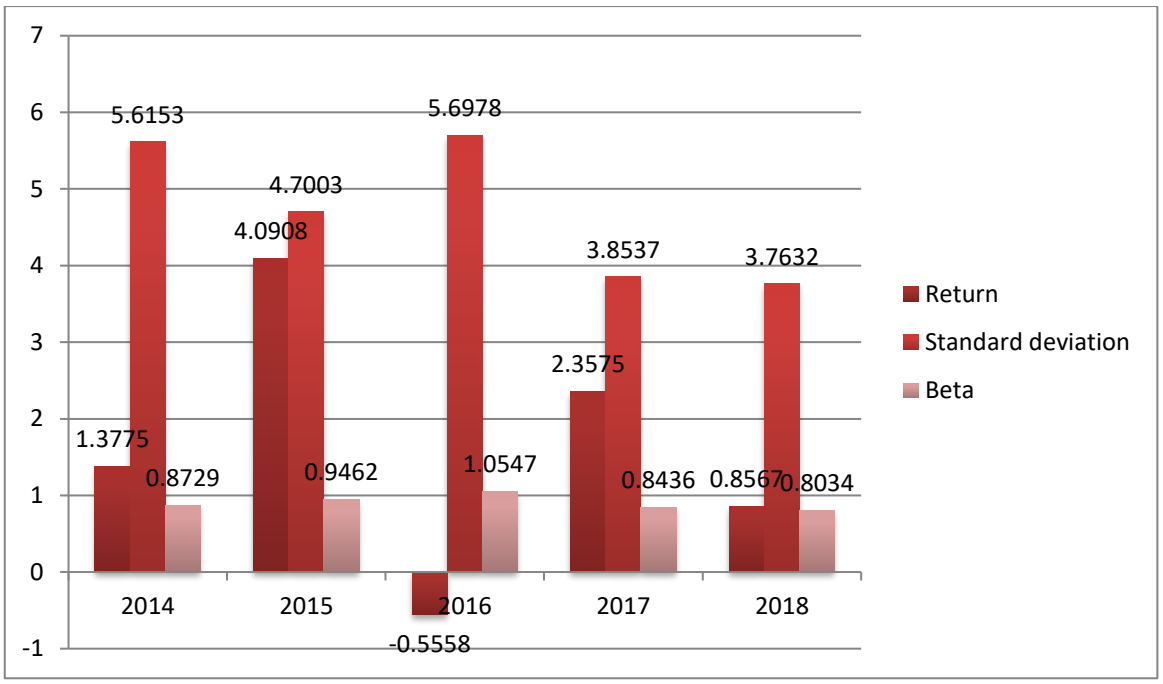
  = 0.06066

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

  = 0.989084

GRAPH 4.2SHOWING RISK AND RETURN ANALYSIS OF ADITYA BIRLA SUNLIFE MIDCAP FUND



INTERPRETATION:

The above graph shows the 5 years return, risk, and beta of Aditya Birla Sun life Midcap Fund. From the above analysis it is observed that high risk found in the year 2016 as standard deviation shows 5.6978 and beta shows 1.0547 and return shows negative outcome compared to other years. High return in the year 2016 and 2017 and again decreases in the year 2018 this shows high volatility and hence shows the variations with regard to returns.

2.HDFC MIDCAP OPPORTUNITIES FUND

Asset allocation:

Equity and equity related instruments 95.26%

Cash/call & Debt 4.74%

Top 5 Holdings:

Name of holdings	**Instrument**	**% of Net Assets**
Sundram	Equity	3.96
Cholamandalam	Equity	3.94
Voltas	Equity	3.26
TI Financial	Equity	2.49
Hexaware Tech	Equity	2.49

Top 5 Sectors:

Sectors	**% of Net Assets**
Banking/Finance	18.74
Engineering	10.32
Manufacturing	9.58
Automotive	8.47
Miscellaneous	8.24

TABLE 4.3CALCULATION OF RISK AND RETURNS ANALYSIS OF HDFC MIDCAP OPPORTUNITIES FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	1.64	4.44	-2.83	2.58	4.18
2.	Feb	1.54	12.39	3.83	2.81	-1.44
3.	Mar	-4.14	10.62	-1.46	4.75	0.27
4.	Apr	-5.29	-0.89	4.16	5.45	4.55
5.	May	-3.71	6.3	-3.75	5.65	-1.88
6.	Jun	5.61	2.41	1.45	0.83	-0.72
7.	Jul	8.99	3.02	0.31	1.99	5.96
8.	Aug	3.34	6.49	0.63	-5.89	1.57
9.	Sep	6.32	3	0.94	-2.39	5.55
10.	Oct	-2.77	2.67	-7.13	6.13	-2.62
11.	Nov	5.67	-1.24	-8.97	3.14	-2.58
12.	Dec	6.77	0.03	8.6	4.91	-2.61

Year	Return	Standard deviation	Beta
2014	1.9975	4.9093	0.7655
2015	4.1033	4.2551	0.8131
2016	-0.3517	4.8937	0.9279
2017	2.4967	3.6836	0.7795
2018	0.8525	3.3679	0.7379

Calculation of Risk and Return:

- **Average Return:**

Average Return = Total Return / n

= 1.81966

- **Standard Deviation:**

Standard Deviation= $\sqrt{\frac{(R-Ra)^2}{n-1}}$

[R= Return, Ra=Average return]

=4.22192

- **Beta:**

Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

[Rm=Market Return, Rma= Average Market Returns]

=0.80477

- **Sharpe's Ratio:**

Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

= 0.28605

- **Treynor's Ratio:**

Treynor's Ratio (β) = $Ra - Rf/\beta$

= 1.50063.

- **Jensen's Ratio:**

Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

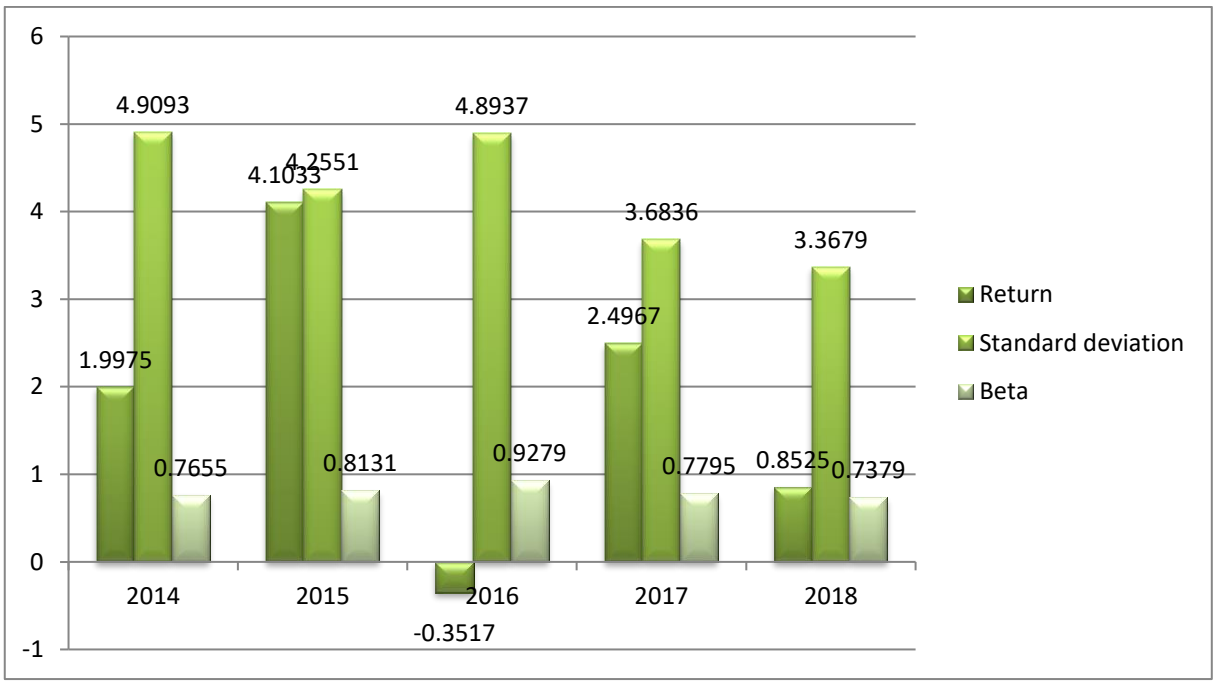
= 0.30632

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

= 0.98185

GRAPH 4.3SHOWING RISK AND RETURN ANALYSIS OF HDFC MIDCAP OPPORTUNITIES FUND



INTERPRETATION:

The graph shows the 5 years return, risk and beta of HDFC Midcap Opportunities Fund.From the above analysis it is observed that high risk found in the year 2014 as standard deviation shows 4.9093 and beta shows 1.9975. During the year 2014 return shows negative outcome compared to other years. In the year 2015 return is high after that again in the year decreases gradually from the year 2017. This sows high volatility and hence shows the variations with regard to returns.

3. ICICI PRUDENTIAL MIDCAP FUND

Asset allocation:

Equity and equity related instruments 89.93%

Others 0.89%

Cash/call & Debt 9.20%

Top 5 Holdings:

Name of holdings	**Instrument**	**% of Net Assets**
Indian Hotels	Equity	4.75
Tata Chemicals	Equity	3.98
Avenue Supermar	Equity	3.81
Fortis Health	Equity	3.68
Camlin Fine	Equity	2.68

Top 5 Sectors:

Sectors	**% of Net Assets**
Banking/Finance	14.01
Chemicals	12.46
Services	10.83
Automotive	7.42
Engineering	6.74

TABLE 4.4CALCULATION OF RISK AND RETURN ANALYSIS OF ICICI PRUDENTIAL MIDCAP FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	0.39	6.49	-3.73	2.42	3.93
2.	Feb	-0.8	16.41	4.05	-0.07	-2.16
3.	Mar	-7.53	10.95	-1.93	7.37	0.52
4.	Apr	-5.3	1.28	5.95	4.09	3.5
5.	May	-1.95	4.77	-5.52	1.74	-0.32
6.	Jun	7.15	2.46	0.53	1.08	-0.11
7.	Jul	8.98	3.42	-0.88	3.92	8.16
8.	Aug	6.71	7.49	3.16	-6.51	1.12
9.	Sep	6.61	0.74	-0.1	-0.49	5.76
10.	Oct	-3.59	5.65	-10.39	-4.4	-2.41
11.	Nov	6.54	-0.56	-8.28	4.95	-1.41
12.	Dec	6.11	-2.37	7.18	3.85	-3.68

Year	Return	Standard deviation	Beta
2014	1.9433	5.7012	0.8333
2015	4.7275	5.2524	1.0146
2016	-0.83	5.7624	1.0037
2017	1.4958	3.9419	0.5096
2018	1.075	3.5832	0.7785

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.68232

- **Standard Deviation:**

  Standard Deviation= $\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.84822

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.82794

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.22077

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.29275

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

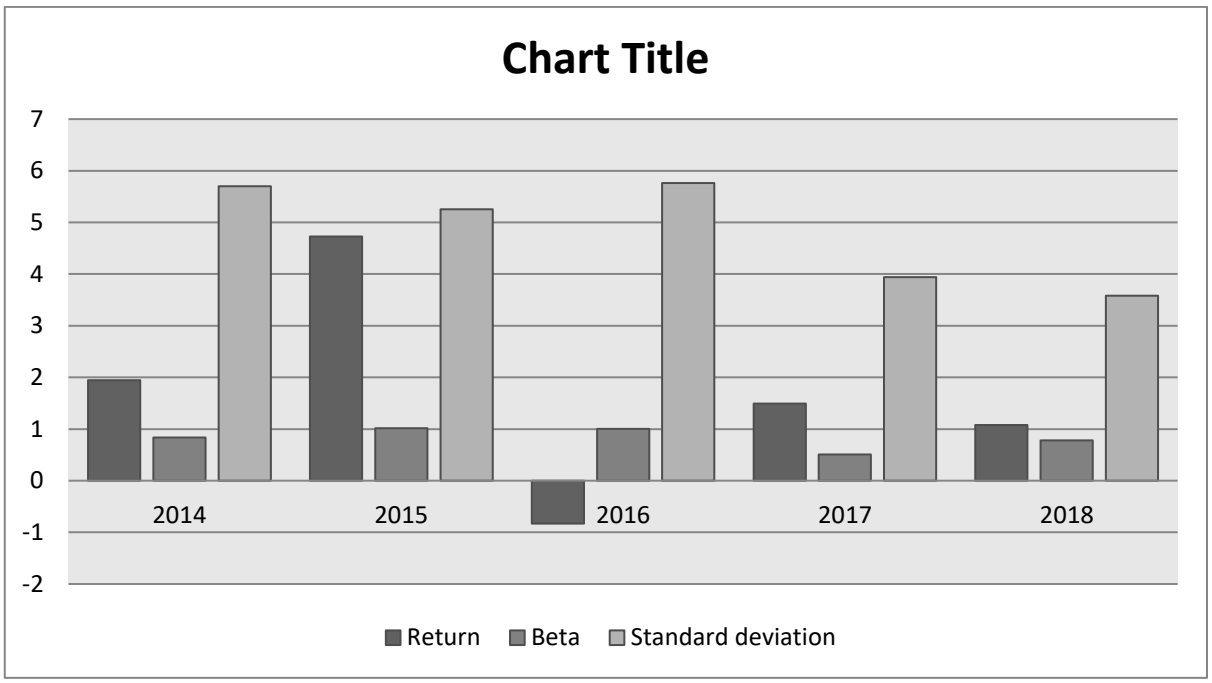
  = 0.14973

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

= 0.904722

GRAPH 4.4 SHOWING RISK AND RETURN ANLYSIS OF ICICI PRUDENTIAL MIDCAP FUND



INTERPRETATION:

The above graph represents the 5 years return, risk and beta of the ICICI Prudential Midcap Fund. From the above analysis it is observed that high risk found in the year 2014 as standard deviation shows5.7624 and beta shows 1.0037 and return shows negative outcome compared to other years. During the year 2015 there is a high return and again decreases gradually from the year 2017 this shows high volatility and hence shows the variations with regard to returns.

4. L&T MIDCAP FUND

Asset allocation:

Equity and equity related instruments 90.61%

Others 0.17%

Cash/call & Debt 9.22%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
Cholamandalam	Equity	2.71
Mindtree	Equity	2.46
Ramco cements	Equity	2.21
Mphasis	Equity	2..14
Emami	Equity	2.07

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	14.68
Engineering	10.75
Chemicals	10.73
Cement	7.59
Manufacturing	7.12

TABLE 4.5CALCULATION OF RISK AND RETURN ANALYSIS OF L & T MIDCAP FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	3.68	2.69	-4.6	2.03	6.51
2.	Feb	0.84	15.65	3.51	2.46	1.36
3.	Mar	-4.86	11.41	-0.28	6.94	1.43
4.	Apr	-3.72	-0.12	5.84	4.75	4.86
5.	May	-0.82	5.75	-4.21	2.67	0.04
6.	Jun	5.9	5.21	1.59	2.7	-0.32
7.	Jul	6.76	3.9	-0.6	4.17	7.09
8.	Aug	2.01	4.9	2.55	-5.86	0.38
9.	Sep	6.99	2.92	0.08	-1.32	4.61
10.	Oct	-4.49	3.58	-6.79	6.75	-1.39
11.	Nov	3.5	0.57	-12.25	3.43	-3.48
12.	Dec	10.86	0.41	7.12	4.35	-3.37

Year	Return	Standard deviation	Beta
2014	2.2208	5.0177	0.8205
2015	4.7392	4.6133	0.9342
2016	-0.67	5.7925	0.9847
2017	2.7558	4.0457	0.7237
2018	1.4767	3.5789	0.7602

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 2.1045

- **Standard Deviation:**

  Standard Deviation= $\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.60962

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.84466

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.32378

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.76698

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

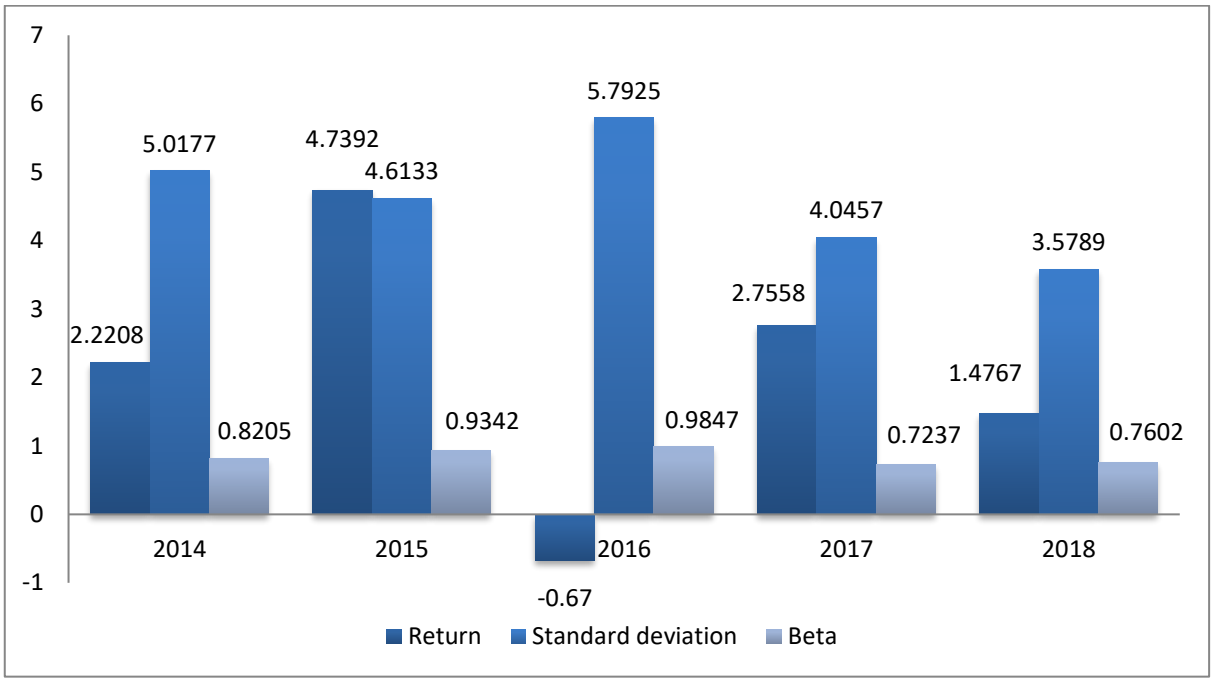
  = 0.54855

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

  = 0.965374

GRAPH 4.5SHOWING RISK AND RETURN ANALYSIS OF L&T MIDCAP FUND



INTERPRETATION:

The above graph represents the 5 years returns, risk and beta of the L&T Midcap Fund. From the above analysis it is observed that the return of the fund fluctuating over the period, high risk found in the year 2016 as standard deviation shows 5.7925 and beta shows 0.9847 and return shows negative outcome compared to other years. There is high return in the year 2016 and again decreases gradually from the year 2017 this shows high volatility and hence shows the variations with regard to returns.

5. RELIANCE MIDCAP FUND

Asset allocation:

Equity and equity related instruments 93.58%

Others 0.94%

Money Market 5.48%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
HDFC Bank	Equity	4.77
India Cements	Equity	3.58
GE Power India	Equity	3.44
NCC	Equity	3.32
Abbott India	Equity	2.93

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	17.25
Cement	12.04
Engineering	9.80
Chemicals	9.67
Miscellaneous	8.35

TABLE 4.6CALCULATION OF RISK RETURN AND RISK ANALYSIS OF RELIANCE MIDCAP FUND

S.N	Month	20114	2015	2016	2017	2018
1.	Jan	2.67	6.42	-3.47	4.59	5
2.	Feb	-0.58	16.74	1.56	5.47	-0.55
3.	Mar	-3.83	10.12	-1.64	5.29	0.89
4.	Apr	-5.13	1.05	7.41	3.82	4.12
5.	May	-1.53	4.22	-7.31	3.88	-2.78
6. 0	Jun	3.6	4.36	2.57	0.38	-0.19
7.	Jul	8.05	4.04	2.4	4.29	8.59
8.	Aug	4.02	4.44	1.54	-9.39	2.69
9.	Sep	8.31	2.65	1.52	-2.2	4.16
10.	Oct	-4.84	4.68	-8.99	5.59	-1.28
11.	Nov	2.86	-0.65	-12.1	3	-4.55
12.	Dec	7.68	-0.94	5.77	4.09	-4.71

Year	Return	Standard deviation	Beta
2014	1.7733	4.9290	0.7720
20015	4.7608	4.8226	0.9585
2016	-0.895	5.9808	1.0614
2017	2.4008	4.3483	0.8599
2018	0.9492	4.0774	0.8910

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.79782

- **Standard Deviation:**

  Standard Deviation=$\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.83162

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.90856

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.24543

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.30516

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

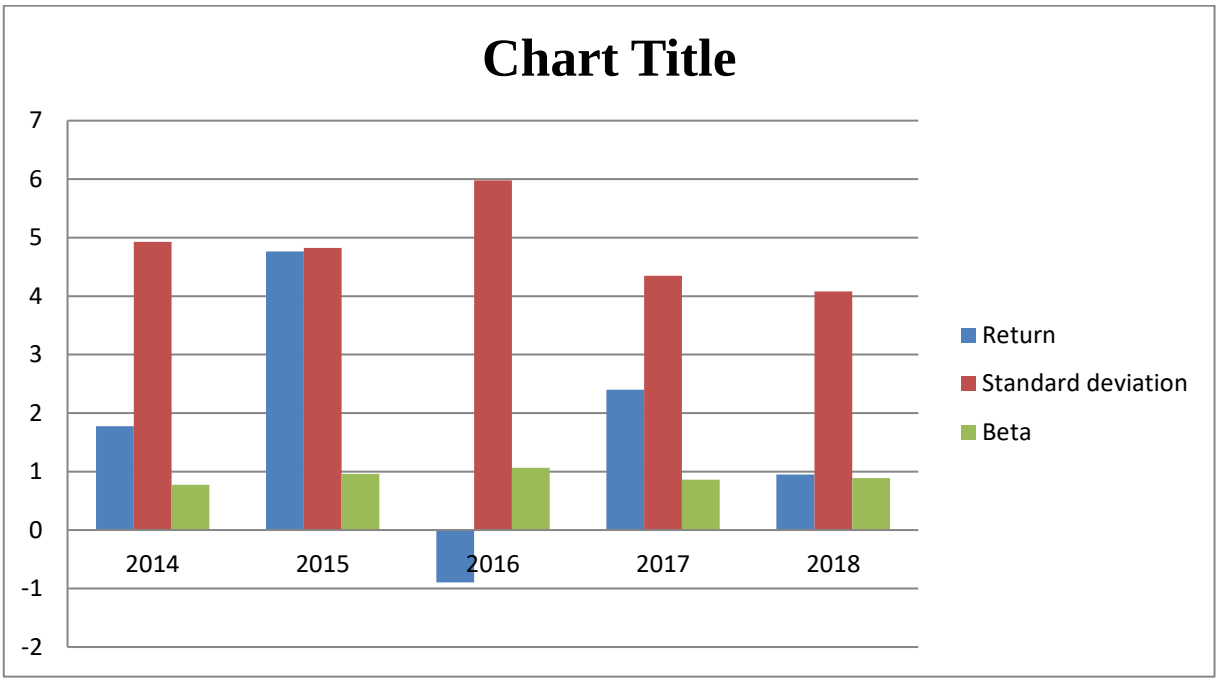
  = 0.17362

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

  = 0.974011

GRAPH 4.6SHOWING RISK AND RETURNS ANALYSIS OF RELIANCE MIDCAP FUND



INTERPRETATION:

The above graph represents the 5 years returns, risk and beta of the Reliance Midcap Fund. From the above we can interpret that there is a high risk in the market, due to high risk in the year 2016 as standard deviation shows 5.9808 and beta shows 1.0614 there is a negative outcome in the return. In the year 2016 stock is more volatile compare to the index return it means stock is aggressive because beta is more than one. Return is high in the year 2015 compared to other years. Return again started decrease from the year 2017

6. SBI MAGNUM MIDCAP FUND

Asset allocation:

Equity and equity related instruments 92.98%

Others 0.02%

Money Market 5.69%

Cash/call & Debt 1.31%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
Cholamandalam	Equity	4.98
Carborundum	Equity	4.38
Dixon Technolog	Equity	3.95
Ramco Cements	Equity	3.88
Sheela Foam	Equity	3.60

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	18.71
Engineering	16.28
Pharmaceuticals	14.64
Chemicals	10.92
Cement	6.55

TABLE 4.7CALCULATION OF RISK AND RETURN ANALYSIS OF SBI MAGNUM MIDCAP FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	2.08	-0.33	-3.6	5.29	3.34
2.	Feb	3.24	11.13	5.31	3.93	-1.19
3.	Mar	-5.14	8.64	0.18	2.77	0.82
4.	Apr	-5.11	2.28	4.35	3.07	1.6
5.	May	-3.55	4.93	-5.11	1.85	-1.98
6.	Jun	7.67	5.04	1.12	0.51	-0.35
7.	Jul	9.76	3.77	1.3	3.18	4.18
8.	Aug	8.05	4.87	1.17	-7.74	4.54
9.	Sep	6.71	3.85	2.16	-2.85	4.42
10.	Oct	-1.75	2.11	-5.91	5.58	-3.59
11.	Nov	6.24	0.72	-9.5	2.83	-2.89
12.	Dec	6.4	3	7.68	3.78	-2.65

Year	Return	Standard deviation	Beta
2014	2.8833	5.4528	0.7986
2015	4.1675	3.1899	0.5658
2016	-0.0708	5.0632	0.9373
2017	1.85	3.7503	0.7634
2018	0.5208	3.0522	0.6078

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.87016

- **Standard Deviation:**

  Standard Deviation = $\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.10168

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.73458

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.30674

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.71276

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

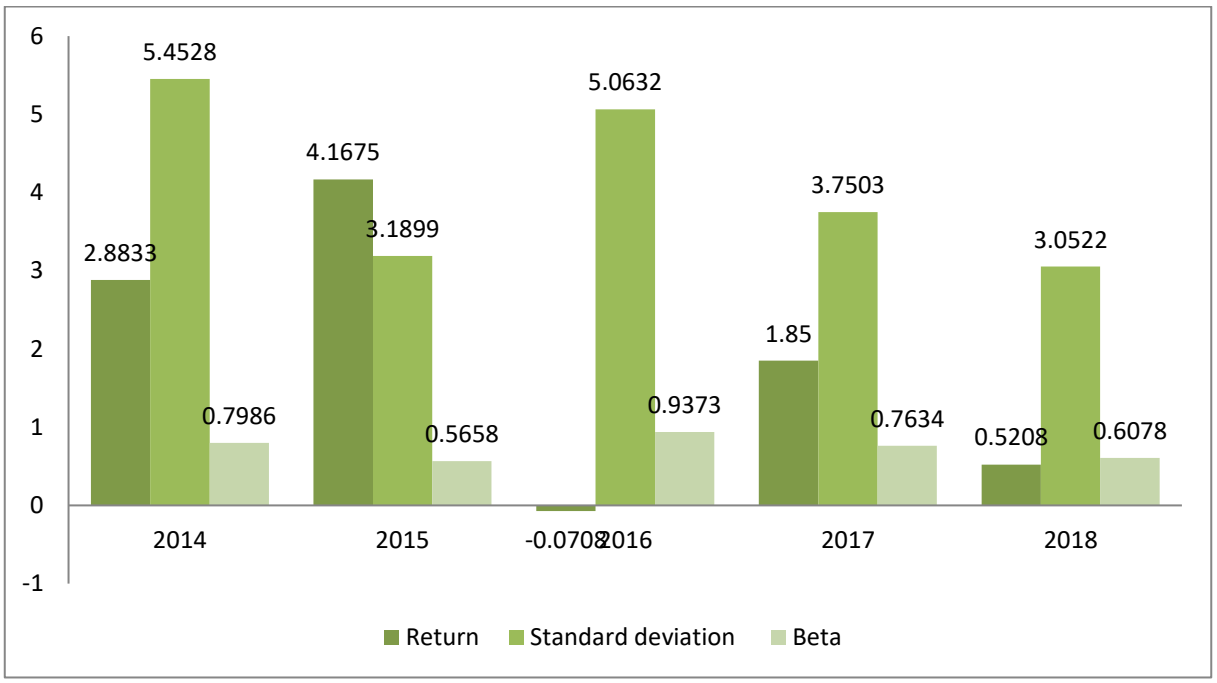
  = 0.43179

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

  = 0.869704

GRAPH 4.7SHOWING RISK AND RETURN ANALYSIS OF SBI MAGNUM MIDCAP FUND



INTERPRETATION:

The above graph represents 5 years returns, risk and beta of the SBI Magnum Midcap Fund. From the above analysis it is observed that in the year 2015 there is a high return compared to other years. In the year 2016 high risk is found as standard deviation shows 5.0632 and beta shows 0.9373 and return shows negative outcome. In the year 2017 the return increases and again it decreases this shows high volatility and hence the variations with regard to returns.

7. IDFC STERLING EQUITY FUND

Asset allocation:

Equity	91.68%
Others	1.61%
Money Market	6.34%
Cash/ Call	0.37%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
Future Retail	Equity	4.45
Bajaj Finance	Equity	2.88
KFC Intl	Equity	2.66
Induslnd Bank	Equity	2.65
Ramco Cements	Equity	2.60

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	15.05
Cement	11.89
Engineering	9.20
Chemicals	8.55
Miscellaneous	8.22

TABLE 4.8CALCULATION OF RISK RETURN AND RISK ANALYSIS OF IDFC STERLING EQUITY FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	2.26	2.45	-4.35	3.8	6.25
2.	Feb	-0.26	12.85	0.64	1.56	1.05
3.	Mar	-4.37	8.92	0.91	5.1	0.38
4.	Apr	-4.29	-0.96	2.79	5.05	5.52
5.	May	-1.73	5.11	-4.88	1.37	2.55
6.	Jun	6.06	4.38	-1.55	0.03	-1.71
7.	Jul	9.09	1.38	0.3	4.19	5.71
8.	Aug	2.23	4.86	2.86	-7.77	2.75
9.	Sep	4.8	5	0.75	-2.78	4.67
10.	Oct	-6.91	2.77	-7.32	8.54	-0.76
11.	Nov	2.19	1.21	-12.97	4.66	-2.85
12.	Dec	6.36	-1.67	6.89	5.55	-3.12

Year	Return	Standard deviation	Beta
2014	1.2858	4.9192	0.7833
2015	3.8583	4.0533	0.7796
2016	-1.3275	5.5121	0.9286
2017	2.4417	4.3579	0.9708
2018	1.7033	3.3818	0.6876

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.59232

- **Standard Deviation:**

  Standard Deviation= $\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  = 4.44486

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  =0.82998

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  = 0.22055

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  = 1.18114

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

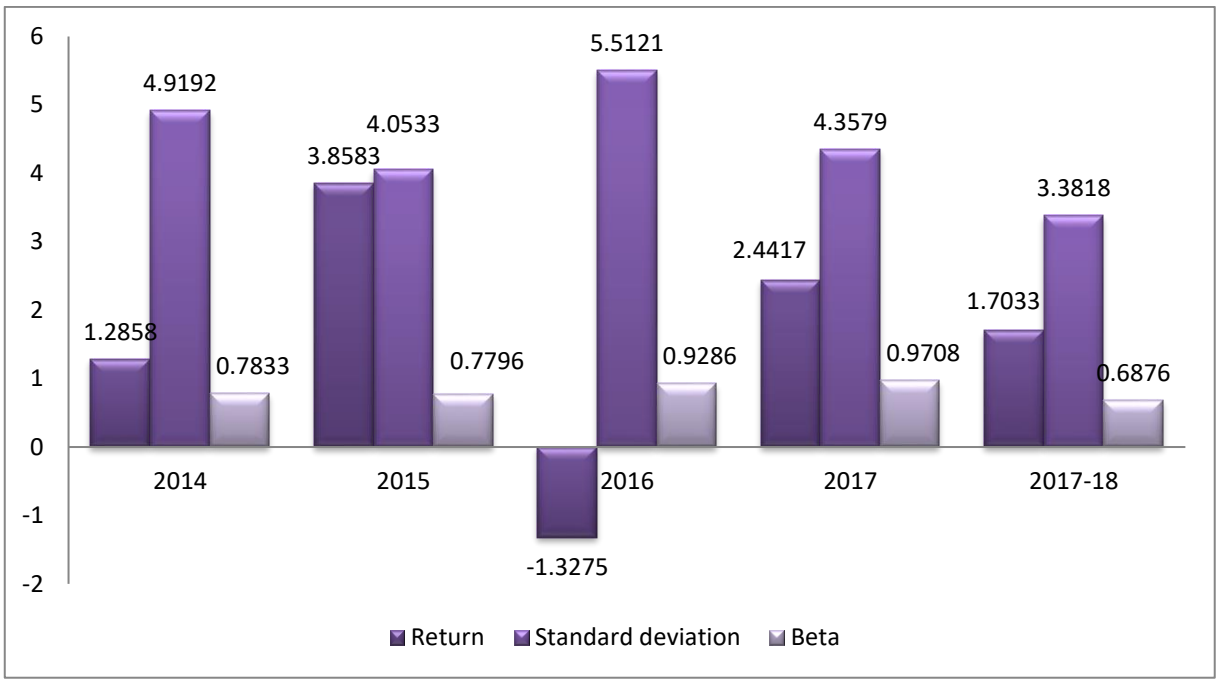
  = 0.13989

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

  = 0.923891

GRAPH 4.8 SHOWING RISK AND RETURN ANALYSIS OF IDFC STERLING EQUITY FUND



INTERPRETATION:

The above graph represents 5 years returns, risk and beta of the IDFC STERLING Equity Fund. From the above analysis it is observed that high return found in the year 2015 compared to other years. High return found in the year 2016 as standard deviation shows 5.5121 and beta shows 0.9286 and return shows negative outcome compared to other years. In the year 2017 return increases again it decreases in the year 2018 this shows high volatility and hence shows the variations with regard to returns.

8. AXIS MIDCAP FUND

Asset allocation:

Equity	91.97%
Others	0.77%
Cash/ Call	7.26%

Top 5 Holdings:

Name of holdings	Instrument	% of Net Assets
GRUSH Finance	Equity	8.32
Page Industires	Equity	5.07
City Union Bank	Equity	4.66
Sundaram Finance	Equity	4.36
Supreme Ind	Equity	4.07

Top 5 Sectors:

Sectors	% of Net Assets
Banking/Finance	31.17
Automotive	12.60
Manufacturing	11.80
Miscellaneous	9.16
Retail and Real Estate	4.32

TABLE 4.9CALCULATION OF RISK RETURN AND RISK ANALYSIS OF AXIS MIDCAP FUND

S.N	Month	2014	2015	2016	2017	2018
1.	Jan	2.76	3.18	-2.88	4.15	3.42
2.	Feb	0.4	17.32	4.3	1.37	-1.32
3.	Mar	-4.72	11.81	0.01	2.78	2.8
4.	Apr	-6.43	-2.24	5.85	3.34	3.95
5.	May	-4.46	4.97	-5.74	2.21	-0.03
6.0	Jun	6.59	3.82	0.94	0.15	-0.65
7.	Jul	8.64	3.84	-1.44	1.38	4.92
8.	Aug	4.37	5.63	-1.03	-9.16	2.56
9.	Sep	5.31	3.63	-0.28	-2.06	4.23
10.	Oct	-7.08	-1.09	-5.38	4.66	-3.06
11.	Nov	4.19	-0.2	11.51	2.56	0.18
12.	Dec	11.55	-0.59	6.81	4.9	0.18

Year	Return	Standard deviation	Beta
2014	1.76	6.1833	1.0135
2015	4.1733	5.6629	1.0876
2016	-0.8625	5.1951	0.9353
2017	1.3567	3.8510	0.8103
2018	1.4317	2.5368	0.4846

Calculation of Risk and Return:

- **Average Return:**

  Average Return = Total Return / n

  = 1.57184

- **Standard Deviation:**

  Standard Deviation=$\sqrt{\frac{(R-Ra)^2}{n-1}}$

  [R= Return, Ra=Average return]

  =4.68582

- **Beta:**

  Beta = $(R - Ra)(Rm - Rma)/(Rm - Rma)^2$

  [Rm=Market Return, Rma= Average Market Returns]

  - =0.88383

- **Sharpe's Ratio:**

  Sharpe's Ratio (σ) = $Ra - Rf/\sigma$

  - = 0.20484

- **Treynor's Ratio:**

  Treynor's Ratio (β) = $Ra - Rf/\beta$

  - = 1.0860

- **Jensen's Ratio:**

  Jensen's Ratio (α) = $Ra - [Rf + \beta(Rma - Rf)]$

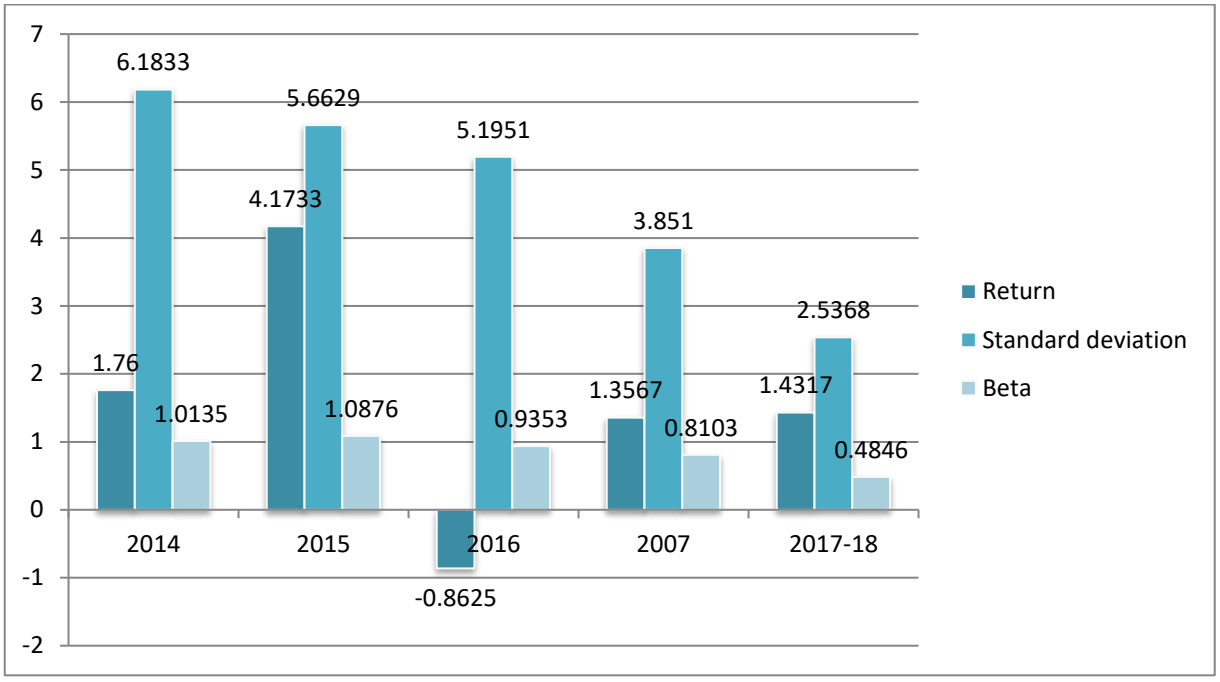
  = 0.08237

- **Coefficient of Correlation (r):**

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} * \sqrt{n(\sum y^2) - (\sum y)^2}}$$

= 0.877904

GRAPH 4.9SHOWING RISK AND RETURN ANALYSIS OF AXIS MIDCP FUND



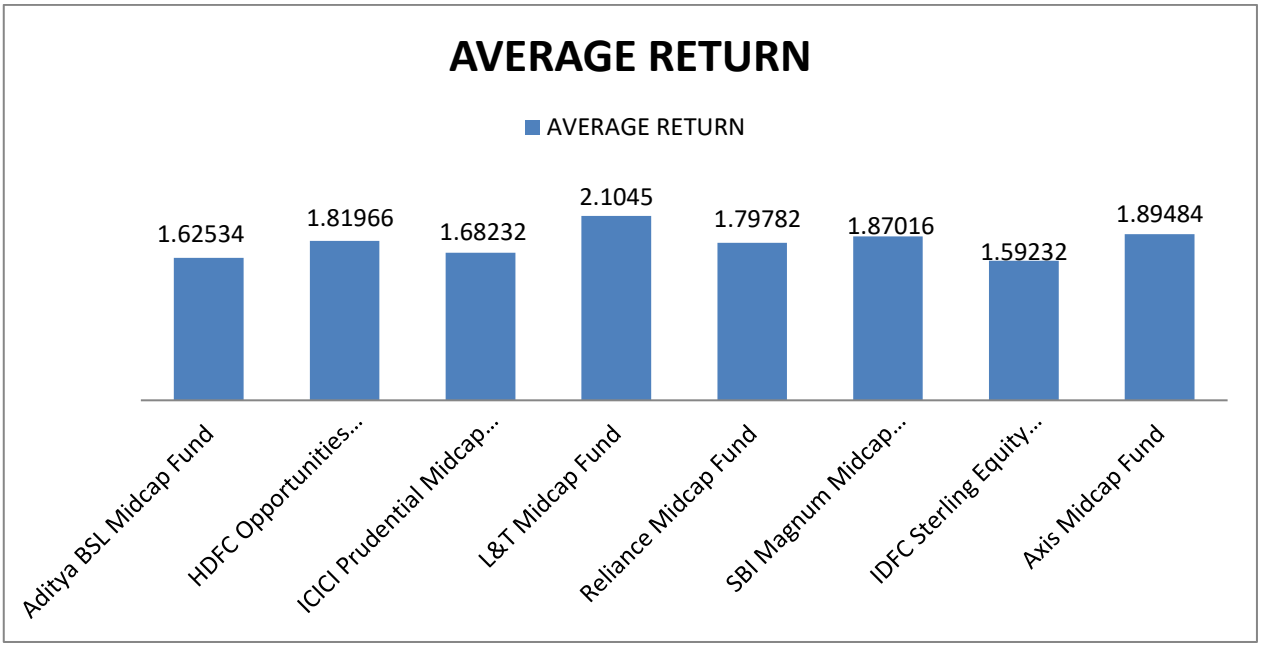
INTERPRETATION:

The above graph represents 5 years returns, risk and beta of the Axis Midcap Fund. From the above analysis it is observed that high return found in the year 2015. High risk found in the year 2014 as standard deviation shows 6.1833 and beta shows 1.0135. In the year 2016 return shows negative outcome and again it is increasing gradually from the year 2017. This shows high volatility and hence shows the variations with regard to returns.

TABLE 4.10COMPARISION OF RETURN OF ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	**Average Return of funds**	**Average Return of Index**
1.Aditya Birla Sun life Midcap Fund	1.62534	1.68016
2.HDFC Midcap Opportunities Fund	1.81966	1.68016
3.ICICI Prudential Midcap Fund	1.68232	1.68016
4.L&T Midcap Fund	2.1045	1.68016
5.Reliance Midcap Fund	1.79782	1.68016
6.SBI Magnum Midcap Fund	1.87106	1.68016
7. IDFC Sterling Equity Fund	1.59232	1.68016
8.Axis Midcap Fund	1.57184	1.68016

GRAPH 4.10 SHOWING COMPARISION OF RETURNS OF ALL THE EQUITY MIDCAP MUTUAL FUNDS



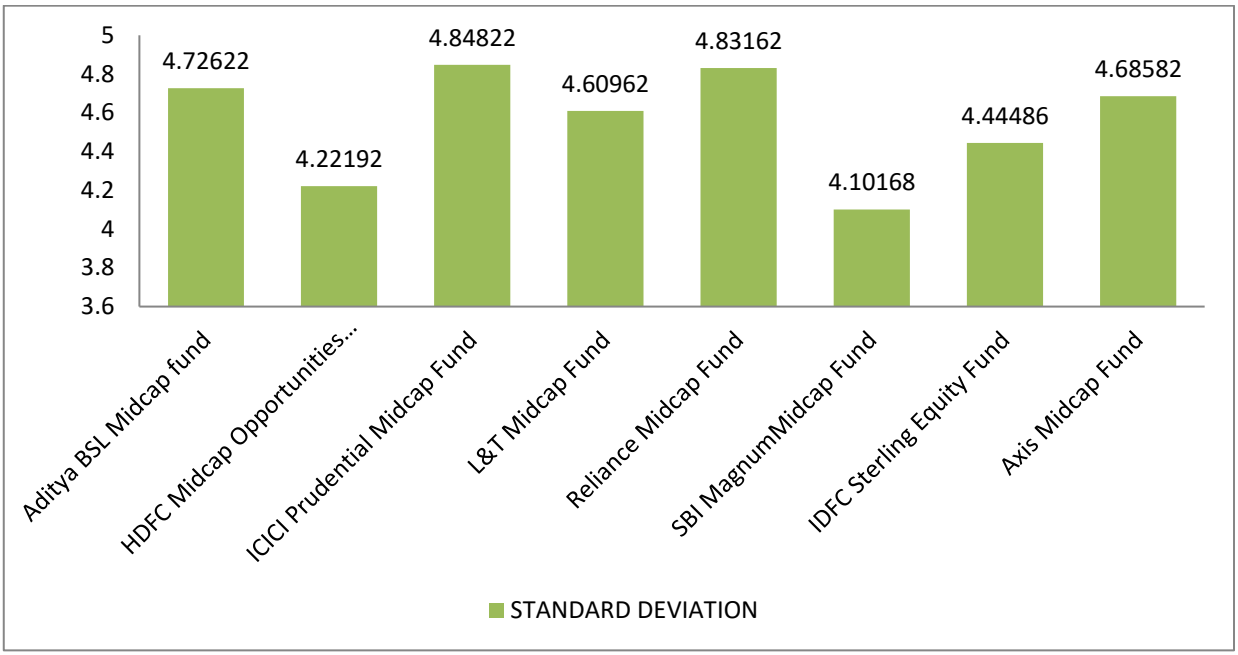
INTERPRETATION:

The above graph represents the all the selected funds Average return and Index Average Return. From the above analysis it is observed that L&T has high return an average of 2.1045 compared to other funds. Axis Midcap fund has less return of 1.57184 compared to other equity midcap funds. L&T and Axis performed good compare to market to other fund

TABLE 4.11 COMPARISION OF STANDARD DEVIATION OF ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	**Standard Deviation of Funds**
1.Aditya Birla Sun life Midcap Fund	4.72622
2.HDFC Midcap Opportunities Fund	4.22192
3.ICICI Prudential Midcap Fund	4.84822
4.L&T Midcap Fund	4.60962
5.Reliance Midcap Fund	4.83162
6. SBI Magnum Midcap Fund	4.10168
7. IDFC Sterling Equity Fund	4.44486
8.Axis Midcap Fund	4.68582

TABLE 4.11THE EQUITY MIDCAP MUTUAL FUNDS



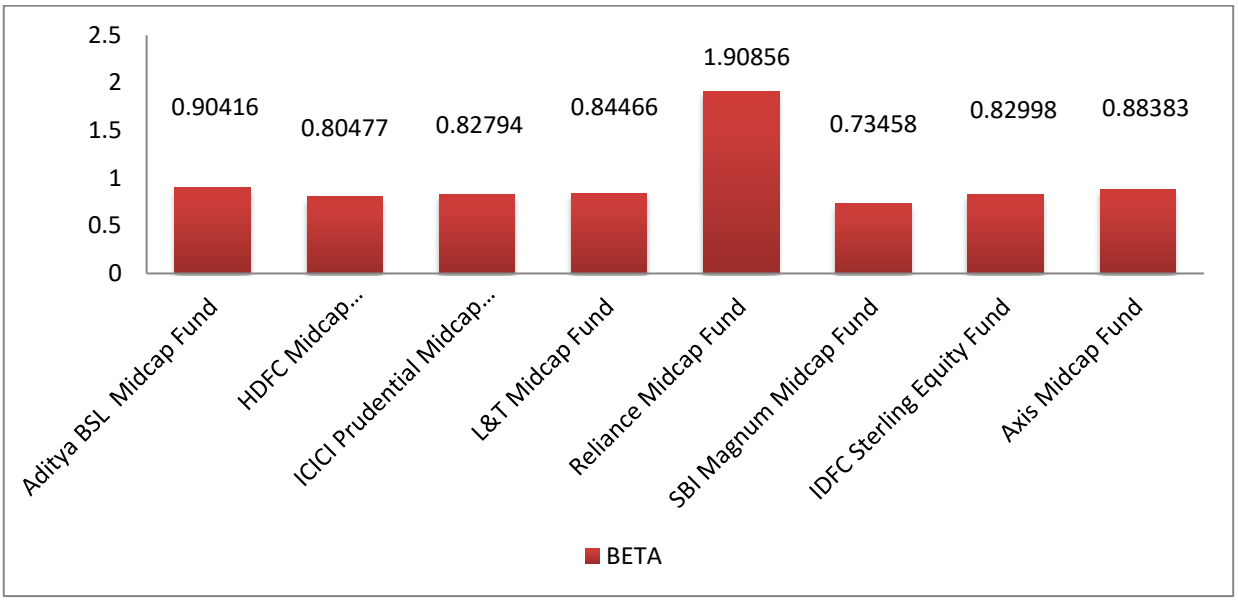
INTERPRETATION:

The above graph represents the Standard deviation of all the selected funds. Standard deviation used to measure the risk of the fund. From the above it is observed that the Axis Midcap fund has high risk as standard deviation shows 5.64436 compared to other funds. SBI Magnum midcap fund has very less risk as standard deviation shows 4.10168 compared to other funds.

TABLE 4.12 COMPARISION OF BETA OF ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	**Beta of Funds**
1.Aditya Birla Sun life Midcap Fund	0.90416
2.HDFC Midcap Opportunities Fund	0.80477
3.ICICI Prudential Midcap Fund	0.82794
4.L&T Midcap Fund	0.84466
5.Reliance Midcap Fund	1.90856
6.SBI Magnum Midcap Fund	0.73458
7. IDFC Sterling Equity Fund	0.82998
8.Axis Midcap Fund	0.88383

GRAPH 4.12 SHOWING COMPARISION OF BETA OF ALL THE MUTUAL FUNDS



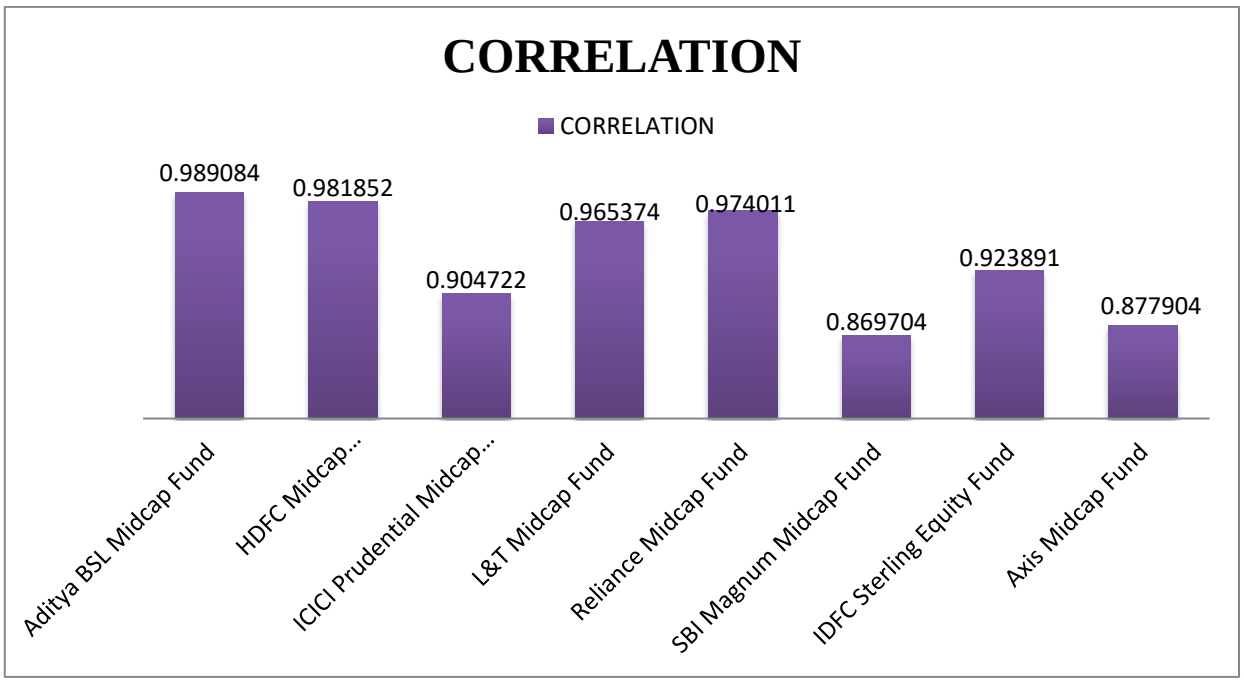
INTERPRETATION:

The above graph represents the Beta of all the selected funds. Beta is a tool to measure the market risk. If the beta is more than one it is said to be stock is more volatile than the market it means aggressive stock, if it is less than one it is said to be stock isless volatile than the market it means defensive stock. Reliance fund is more volatile than the market as beta shows 1.90856 compared all other funds and all other fund has less volatile than the market because beta is less than one. Therefore Reliance fund is aggressive in nature and all other funds are defensive in nature.

TABLE 4.13 COMPARISION OF CORRELATION OF ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	**Correlation**
1.Aditya Birla Sun life Midcap Fund	0.989084
2.HDFC Midcap Opportunities Fund	0.981852
3.ICICI Prudential Midcap Fund	0.904722
4.L&T Midcap Fund	0.965374
5.Reliance Midcap Fund	0.974011
6. SBI Magnum Midcap Fund	0.869704
7. IDFC Sterling Equity Fund	0.923891
8.Axis Midcap Fund	0.877904

GRAPH 4.13 SHOWING COMPARISION OF CORRELATION OF ALL THE MUTUAL FUNDS



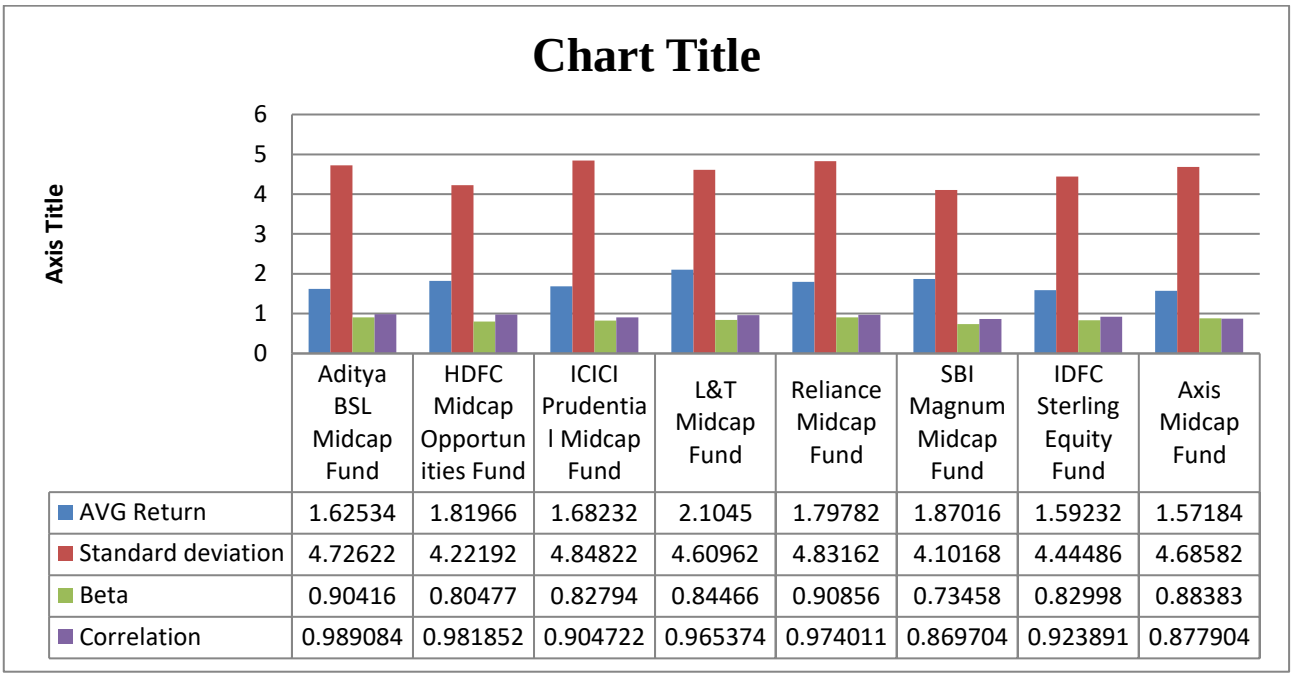
INTERPRETATION:

The above graph represents the Correlation of all the selected funds. Correlation is used to describe whether 2 variables are related negatively or positively. From the above graph we can interpret that the correlation of all the funds are positively correlated and all funds are moving towards the same direction.

TABLE 4.14 COMPARISION OF ALL THE EQUITY MIDCAP MUTUAL FUNDS

Funds Names	Average Return	Standard Deviation	Beta	Correlation
1.Aditya Birla Sun Life Midcap Fund	1.62534	4.72622	0.90416	0.989084
2.HDFC Midcap Opportunities Fund	1.81966	4.22192	0.80477	0.981852
3.ICICI Prudential Midcap Fund	1.68232	4.84822	0.82794	0.904722
4.L&T Midcap Fund	2.1045	4.60962	0.84466	0.965374
5.Reliance Midcap Fund	1.79782	4.83162	0.90856	0.974011
6.SBI Magnum Midcap Fund	1.87016	4.10168	0.73458	0.869704
7.IDFC Sterling Equity Fund	1.59232	4.44486	0.82998	0.923891
8.Axis Midcap Fund	1.57184	4.68582	0.88383	0.877904

GRAPH 4.14 SHOWING COMPARISION OF ALL THE MUTUAL FUNDS



	Aditya BSL Midcap Fund	HDFC Midcap Opportunities Fund	ICICI Prudential Midcap Fund	L&T Midcap Fund	Reliance Midcap Fund	SBI Magnum Midcap Fund	IDFC Sterling Equity Fund	Axis Midcap Fund
AVG Return	1.62534	1.81966	1.68232	2.1045	1.79782	1.87016	1.59232	1.57184
Standard deviation	4.72622	4.22192	4.84822	4.60962	4.83162	4.10168	4.44486	4.68582
Beta	0.90416	0.80477	0.82794	0.84466	0.90856	0.73458	0.82998	0.88383
Correlation	0.989084	0.981852	0.904722	0.965374	0.974011	0.869704	0.923891	0.877904

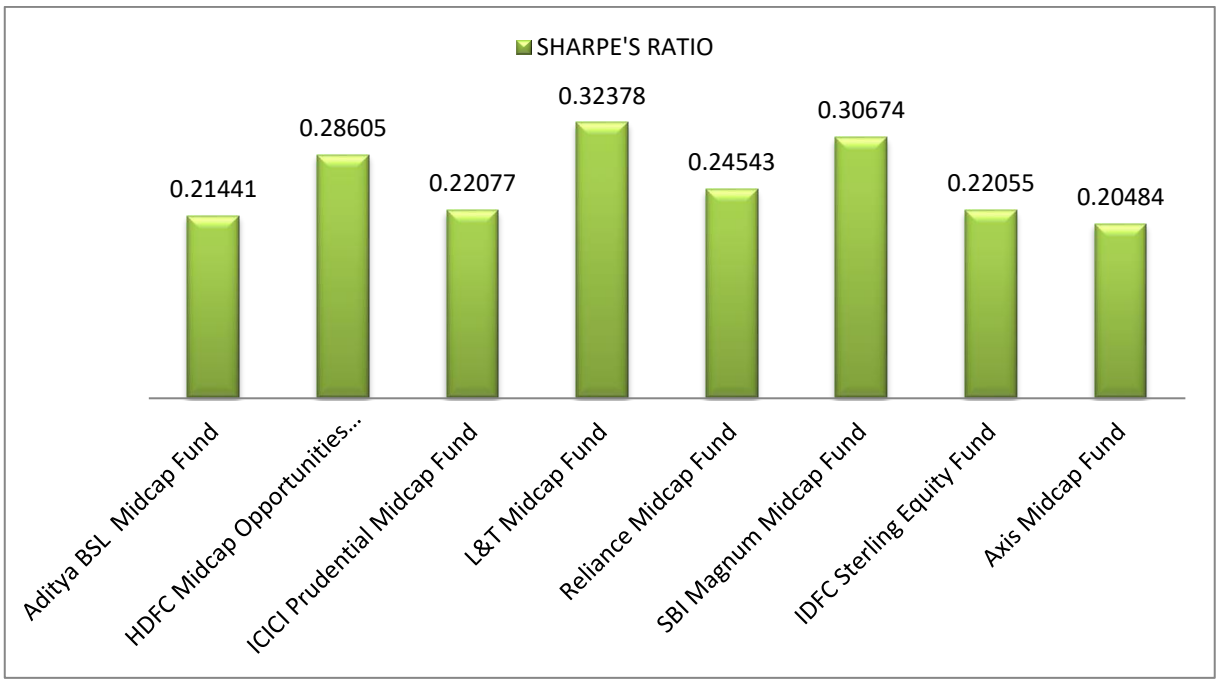
INTERPRETATION:

The above graph represents the comparison of all the selected funds. By seeing above analysis it is observed that L&T has high return and Axis midcap fund has less return as compared to other funds. All the funds are defensive in nature because the beta is less than one except Reliance fund because it is aggressive in nature as beta is more than one. Correlations of all the funds are positively correlated and moving towards same direction. L&T and Rilance funds are the best option for the investor because com pared to other funds return is high and risk is less in that both funds

TABLE 4.15 COMPARISION OF SHARPE'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	Sharpe's Ratio
1.Aditya Birla Sun life Midcap Fund	0.21441
2.HDFC Midcap Opportunities Fund	0.28605
3.ICICI Prudential Midcap Fund	0.22077
4.L&T Midcap Fund	0.32378
5.Reliance Midcap Fund	0.24543
6. SBI Magnum Midcap Fund	0.30674
7.IDFC Sterling Equity Fund	0.22055
8.Axis Midcap Fund	0.20484

GRAPH 4.15 SHOWING COMPARISION OF SHARPE'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS



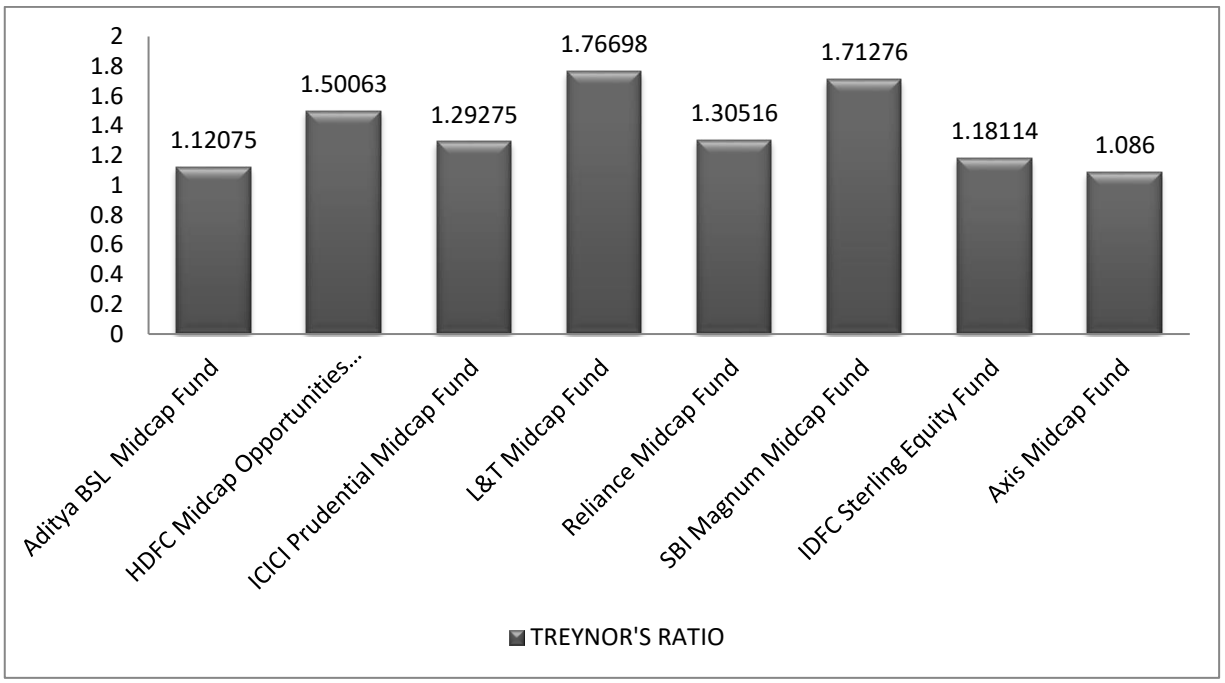
INTERPRETATION:

The above graph represents the Sharpe's Ratio of all the selected funds. Sharpe is a tool used to measure total risk of the funds. From the above analysis it is observed that L&T performed better compared to other mutual funds as Sharpe's ratio is 0.32378 and Axis fund performed lesser than the other funds as Sharpe's ratio as 0.20484. L&T and SBI funds are outperformed than the market

TABLE 4.16 COMPARISION OF TREYNOR'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	Treynor's Ratio
1.Aditya Birla Sun life Midcap Fund	1.12075
2.HDFC Midcap Opportunities Fund	1.50063
3.ICICI Prudential Midcap Fund	1.29275
4.L&T Midcap Fund	1.76698
5.Reliance Midcap Fund	1.30516
6. SBI Magnum Midcap Fund	1.71276
7.IDFC Sterling Equity Fund	1.18114
8.Axis Midcap Fund	1.0860

GRAPH 4 .16 SHOWING COMPARISION OF TREYNOR'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS



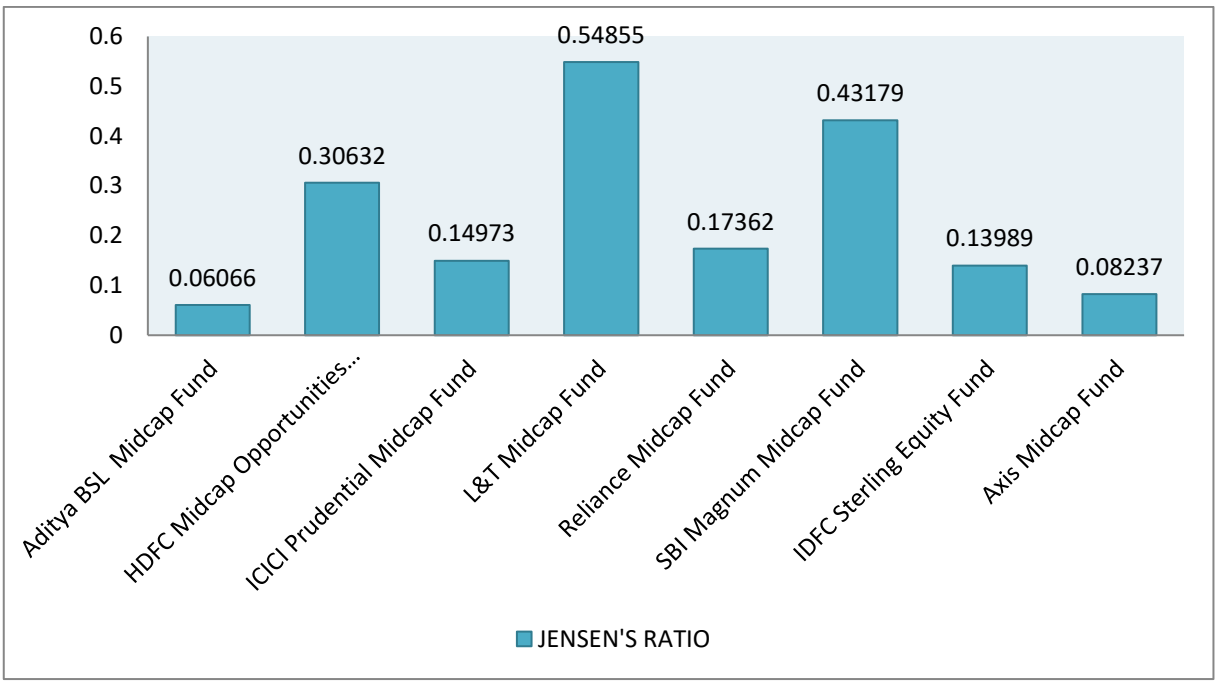
INTERPRETATION:

The above graph represents the Treynor's Ratio of all the selected funds. Treynor is a tool used to measure systematic risk of the funds. From the above analysis it is observed that L&T performed better compared to other mutual funds as Treynor's ratio shows1.76698 and Axis fund performed lesser than the other funds as Treynor's ratio shows 1.0860. L&T and SBI funds are outperformed than the market.

TABLE 4.17 COMPARISION OF JENSEN'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS

Fund Names	**Jensen's Ratio**
1.Aditya Birla Sun life Midcap Fund	0.06066
2.HDFC Midcap Opportunities Fund	0.30632
3.ICICI Prudential Midcap Fund	0.14973
4.L&T Midcap Fund	0.54855
5.Reliance Midcap Fund	0.17362
6. SBI Magnum Midcap Fund	0.43179
7.IDFC Sterling Equity Fund	0.13989
8.Axis Midcap Fund	0.08237

GRAPH 4.17 SHOWING COMPARISION OF JENSEN'S RATIO IN ALL THE EQUITY MIDCAP MUTUAL FUNDS



INTERPRETATION:

The above graph represents the Jensen's Ratio of all the selected funds. Jensen is a tool used to measure unsystematic risk of the funds. From the above analysis it is observed that L&T performed better compared to other mutual funds as Jensen's ratio shows is 0.54855 and Aditya bsl midcapfund performed lesser than the other funds as Jensen's ratio shows 0.06066. L&T and SBI funds are outperformed than the market.

HYPOTHESIS:

- **Null Hypothesis**
  Null hypothesis (H_0) - There is no significant difference between market return and selected equity midcap mutual fund.

- **Alternative Hypothesis**
  Alternative hypothesis (H_1) - There is significant difference between market return and selected equity midcap mutual fund.

T-Test for Market Return and Selected Equity Midcap Mutual Funds:

Paired Samples Test

Pair 1	Paired Differences					T	Df	(2 tailed)
	Mean	Standard deviation	Standard error mean	Interval of the				
				Lower	Upper			
Fund-market return	.08750	.16281	.05148	-02897	.20397	1.700	9	.123

CHAPTER-5

FINDINGS, CONCLUSION AND SUGGESTIONS

FINDINGS:

- It was found that L&T Mutual fund is popular among the investors because the performance is better as compared to other funds related to risk and return analysis made.
- ICICI prudential midcap fund has highest standard deviation and low expected return, this shows us that ICICI fund has a high risk. But L&T has moderate risk and return as compare to other mutual funds.
- Beta of all mutual funds are less than one (Beta<1), so that all the mutual funds are conservative in nature.
- Banking/finance sector, Chemicals, engineering and manufacturing sectors have been included in top five in all the mutual fund schemes.
- L&T fund Treynor's and Sharpe's ratio is high is compared to other mutual funds so performance of L&T is better.
- The correlation of all the mutual funds are positive, which means that the funds and nifty midcap 100 are positively correlated and by correlation we can conclude that all the mutual funds are moving towards same directions, when nifty increases fund also increases on the market and moves in same directions.
- The results of T-test showed that only L&T midcap fund is rejected the statement.
- Before investing in any mutual fund schemes the investors should analyse the factors like return, risk involved in the scheme

CONCLUSION:

The India mutual funds industry has transformed totally for good since last decade and has shown potential growth. Mutual fund is an excellent product offering with great flexibility and liquidity, which can be tailored to suit any investor's objective and it is affordable for the all people of different income levels and saving habits. Mutual fund represents most appropriate investment opportunity for most investors. As share markets become more sophisticated and complex, investors need a financial intermediary who provides the required knowledge and professional expertise on successful investing. As the investors always try to maximize the returns and minimize the risk. Mutual fund satisfies these requirements by providing attractive returns with affordable risks. The mutual fund industry has already overtaken the banking industry, more funds being under mutual fund management than deposited with banks. Though there is competition in the financial market, mutual funds are launching a variety of schemes which caters to the requirement of particular class of investors.

The stock market has also been rising for over three years now. Investors in India would like to invest their money in different fields to earn high return on their investment.

From this present study it is concluded that mutual funds are much better investment option but as future is uncertain, one can give guarantee of good returns, no matter whether it is equity or a mutual fund. Before investing in mutual fund schemes, equity or any other investment alternatives investors should do a little research to minimize their risk and also to know about return.Risk involved in the alternative will help them to decide the right investment plan or product. Investor should know the Asset Management Companies (AMCs) where they are investing.Investor should get the proper information about the fund and market can get advisory services from the stock broking companies.

SUGGESTIONS:

- Before investing in any mutual fund schemes the investors should analyse the track record of the scheme and also they should know wether the mutual fund scheme performing well or not.
- Investor should know the risk and return profile of the mutual fund scheme wheather it is an aggressive or conservative risk.
- Investors should consider their financial goals, risk and return before selecting the mutual fund scheme.
- It is advisable for the investors to invest more on L&T fund because it has higher return as compare to other funds.
- And one more suggestion to investors that last preferences should be given to Aditya Birla Sunlife Midcap Fund by considering last five years performance of the fund.
- It is better to investors to look for that mutual fund schemes, which gives high return with low risk at a short period of time.

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ANNEXURE

COMPANY	Average Return of funds	Average Return of Index
Aditya Birla Sun life Midcap Fund	1.62534	1.68016
HDFC Midcap Opportunities Fund	1.81966	1.68016
CICI Prudential Midcap Fund	1.68232	1.68016
L&T Midcap Fund	2.1045	1.68016
Reliance Midcap Fund	1.79782	1.68016
SBI Magnum Midcap Fund	1.87106	1.68016
IDFC Sterling Equity Fund	1.59232	1.68016
Axis Midcap Fund	1.57184	1.68016

ACHARYA INSTITUTE OF TECHNOLOGY

DEPARTMENT OF MBA

PROJECT (17MBAPR407) -WEEKLY REPORT

NAME OF THE STUDENT: Prashant. N. Todage

INTERNAL GUIDE: Mallika. B. K.

USN: 1AY17MBA36

COMPANY NAME: Karvy Stock Broking Limited.

WEEK	WORK UNDERTAKEN	EXTERNAL GUIDE SIGNATURE	INTERNAL GUIDE SIGNATURE
3rd Jan 2019 – 9th Jan 2019	Industry Profile and Company Profile		
10th Jan 2019 – 17th Jan 2019	Preparation of Research instrument for data collection		
18th Jan 2019 – 25th Jan 2019	Data collection		
26th Jan 2019 – 2nd Feb 2019	Analysis and finalization of report		
3rd Feb 2019 – 9th Feb 2019	Findings and Suggestions		
10th Feb 2019 – 16th Feb 2019	Conclusion and Final Report		

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HOD Signature

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