Project Report

A Study On Performance Evaluation Of Equity Fund Scheme Of Aditya Birla Mf , Kotak Mahindra Mf , ICICI Mf (Last 3 Years)

Submitted to:

DMSR

G.S. College of Commerce and Economics, Nagpur (An Autonomous Institution)

In partial fulfilment for the award of the degree of

Master of Business Administration

Submitted by:

Sejal Padole

Under the Guidance of:

Dr. Kamlesh Thote

Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Accredited "A" Grade Institution



Academic Year 2022-2023

Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Accredited "A" Grade Institution



Academic Year 2022-2023

CERTIFICATE

This is to certify that **Sejal Padole** has submitted the project report titled, "A Report On A Study On Performance Evaluation Of Equity Fund Scheme Of Aditya Birla Mf, Kotak Mahindra Mf, ICICI Mf (Last 3 Years)" towards the partial fulfilment of MASTER OF BUSINESS ADMINISTRATION degree examination. This has not been submitted for any other examination and does not form part of any other course undergone by the candidate.

It is further certified that he has ingeniously completed his project as prescribed by DMSR, G. S. College of Commerce and Economics, Nagpur, (NAAC Reaccredited "A" Grade Autonomous Institution) affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.

Dr. Kamlesh Thote

Dr. Sonali Gadekar

(Project Guide)

(Co-ordinator)

Place: Nagpur

Date:

Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Accredited "A" Grade Institution



Academic Year 2022-2023

DECLARATION

I here-by declare that the project with title "A Report On A Study On Performance Evaluation Of Equity Fund Scheme Of Aditya Birla Mf, Kotak Mahindra Mf, ICICI Mf (Last 3 Years)" has been completed by of **MASTER BUSINESS** fulfilment **OF** in partial me **ADMINISTRATION** degree examination as prescribed by **DMSR**, G. S. College of Commerce and Economics, Nagpur, (NAAC Reaccredited "A" Grade Autonomous Institution) affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur and this has not been submitted for any other examination and does not form the part of any other course under taken by me.

Sejal Padole

Place: Nagpur

Date:

Department of Management Sciences and Research, G.S. College of Commerce & Economics, Nagpur NAAC Accredited "A" Grade Institution



Academic Year 2022-2023

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With immense pride and sense of gratitude, I take this golden opportunity to express my sincere regards to **Dr. Swati Kathaley**, Principal, G. S.College of Commerce & Economics, Nagpur.

I am extremely thankful to my Project Guide **Dr. Kamlesh Thote** for her guidance throughout the project. I tender my sincere regards to the Coordinator, **Dr. Sonali Gadekar** for giving me guidance, suggestions and invaluable encouragement which helped me in the completion of the project.

I will fail in my duty if I do not thank the Non-Teaching staff of the college for their Co-operation.

I would like to thank all those who helped me in making this project complete and successful.

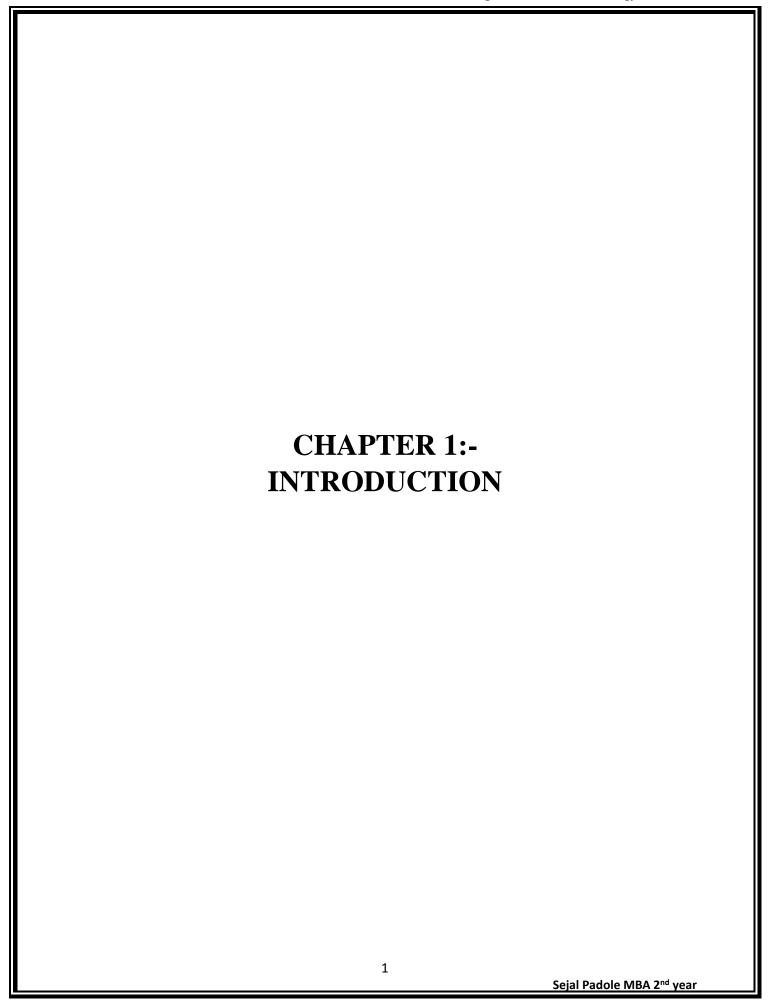
Sejal Padole

Place: Nagpur

Date:

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INTRODUCTION

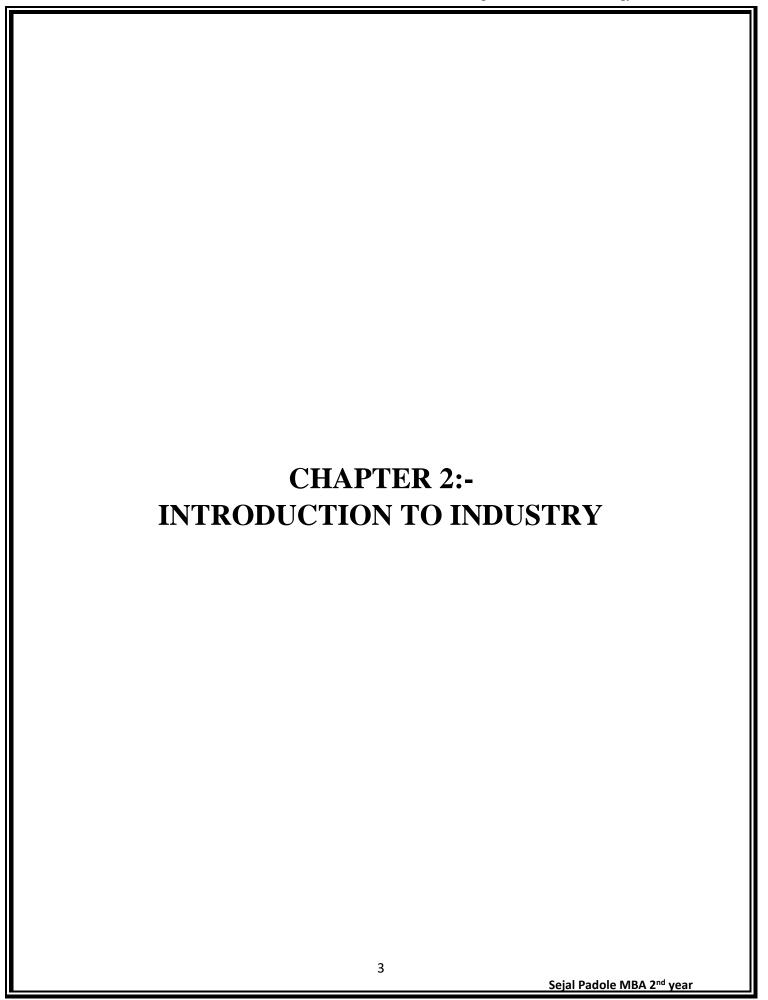
A mutual fund is a type of investment vehicle that pools money from multiple investors to purchase a diversified portfolio of securities such as stocks, bonds, or other financial instruments. The mutual fund is managed by a professional fund manager who uses the pooled funds to invest in various assets with the aim of generating returns for the investors.

The ownership of a mutual fund is divided into units or shares, and investors are allocated units or shares based on the amount of money they contribute to the fund. The value of each unit or share is determined by the net asset value (NAV) of the fund, which is calculated by dividing the total value of the fund's assets by the number of units or shares outstanding.

Mutual funds offer several benefits to investors. They provide diversification of investments, which helps to spread out the risk of investing in a single security. They also offer professional management of investments, which can be beneficial for investors who lack the time or expertise to manage their own portfolios. Additionally, mutual funds offer liquidity, as investors can typically buy or sell units or shares of the fund on any business day.

Mutual funds can be classified into various types based on their investment objectives and the types of assets they invest in. For example, equity funds invest primarily in stocks, while bond funds invest in fixed income securities such as bonds. Balanced funds invest in a mix of stocks and bonds, while sector-specific funds invest in a particular sector such as technology or energy.

Overall, mutual funds are a popular investment option for individuals looking to invest in a diversified portfolio of securities with the guidance of professional fund managers. However, investors should carefully evaluate the fund's investment objectives, historical performance, management team, expense ratios, and risk management practices before making any investment decisions.



INTRODUCTION TO INDUSTRY

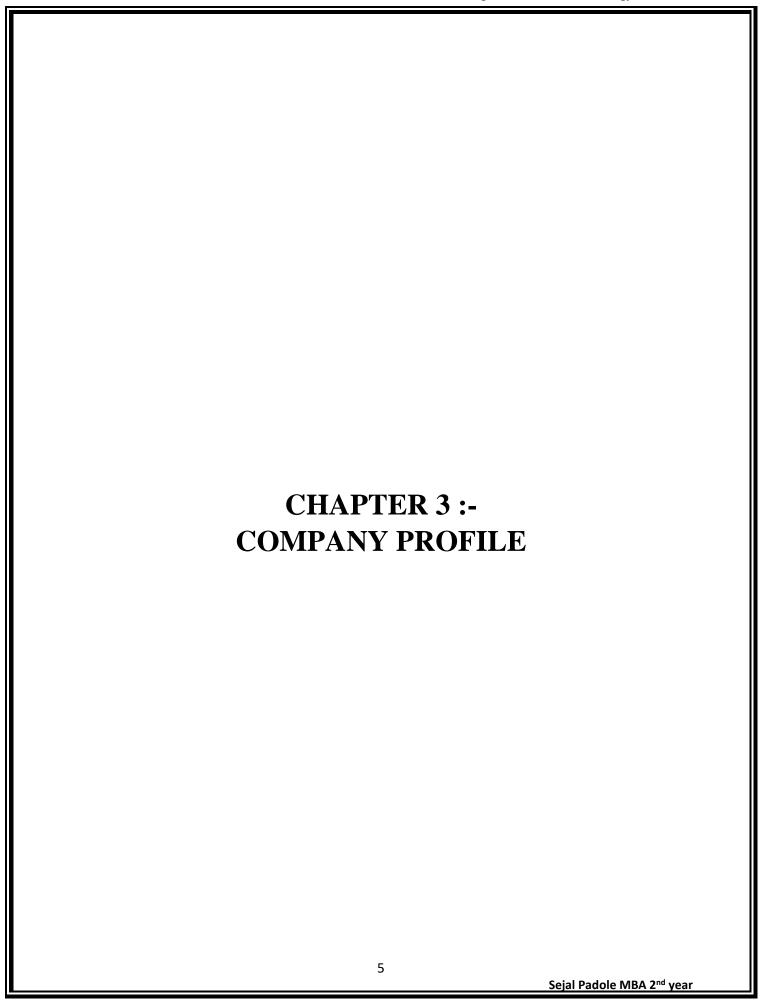
The mutual fund industry in India has grown significantly in recent years, driven by increasing investor awareness, favorable government policies, and a growing middle class with disposable income to invest. The industry is regulated by the Securities and Exchange Board of India (SEBI), which has introduced various regulatory measures to protect investors and promote transparency in the industry.

As of March 2021, there were more than 45 mutual fund companies operating in India, with total assets under management (AUM) of over Rs. 32.17 lakh crore (approximately \$435 billion USD). The industry has seen steady growth in recent years, with AUM increasing at a compound annual growth rate (CAGR) of around 18% over the past 10 years.

Equity funds are the largest category of mutual funds in India, accounting for around 42% of the total AUM, followed by debt funds, which account for around 28% of the total AUM. Other categories of mutual funds include hybrid funds, solution-oriented funds, and exchange-traded funds (ETFs).

The mutual fund industry in India has also witnessed a significant shift towards digital channels, with many mutual fund companies offering online platforms for investors to invest in mutual funds and manage their portfolios. This has made it easier for retail investors to access mutual funds and has contributed to the growth of the industry.

Overall, the mutual fund industry in India has become an important investment option for individuals and institutions, providing access to a diversified portfolio of securities managed by professional fund managers. However, as with any investment, investors should carefully evaluate the fund's investment objectives, historical performance, management team, expense ratios, and risk management practices before making any investment decisions.



COMPANY PROFILE

Aditya Birla Sun Life Mutual Fund is one of the leading mutual fund companies in India, with a wide range of investment solutions. industry profile for Aditya Birla Mutual Fund:



1. **Company Overview:** Aditya Birla Sun Life Mutual Fund is a joint venture between the Aditya Birla

Group, one of India's leading business conglomerates, and Sun Life Financial, a leading international financial services organization based in Canada. The company was founded in 1994 and has since grown to become one of the largest mutual fund houses in India.

- 2. **Product Portfolio:** Aditya Birla Sun Life Mutual Fund offers a wide range of mutual fund schemes across different asset classes, including equity, debt, hybrid, and solution-oriented funds. The company has a diverse product portfolio that caters to the investment needs of different investor segments, from retail investors to institutional investors.
- 3. **Investment Philosophy:** Aditya Birla Sun Life Mutual Fund follows a disciplined investment philosophy that focuses on long-term value creation. The company's investment approach is based on a rigorous research process and a bottom-up stock-picking methodology that aims to identify high-quality companies with strong growth potential.
- 4. **Performance:** Aditya Birla Sun Life Mutual Fund has a strong track record of performance across its product portfolio. The company has consistently delivered competitive returns to its investors, outperforming its benchmark indices and peers across various time horizons.
- 5. **Investor Education:** Aditya Birla Sun Life Mutual Fund is committed to investor education and provides a range of resources and tools to help investors make informed investment decisions. The company conducts regular investor awareness programs and workshops to educate investors on various aspects of mutual fund investing.
- 6. **Awards and Recognition:** Aditya Birla Sun Life Mutual Fund has received numerous awards and recognition for its investment performance, product innovation, and investor education initiatives. The company has been consistently recognized as one of the top mutual fund houses in India by various industry bodies and publications.

Overall, Aditya Birla Sun Life Mutual Fund is a leading mutual fund company in India with a strong track record of performance, a diverse product portfolio, and a disciplined investment philosophy. Helps in deal with educate related to investment and depends on long term goals

Kotak Mahindra Mutual Fund is one of the leading mutual fund companies in India, with a strong presence in the asset management industry. Here is an industry profile for Kotak Mahindra Mutual Fund:



1. Company Overview: Kotak

Mahindra Mutual Fund is a subsidiary of Kotak Mahindra Bank, one of India's leading financial institutions. The company was established in 1998 and has since grown to become one of the most trusted and respected mutual fund houses in India.

- 2. **Product Portfolio:** Kotak Mahindra Mutual Fund offers a wide range of mutual fund schemes across different asset classes, including equity, debt, hybrid, and solution-oriented funds. The company has a diverse product portfolio that caters to the investment needs of different investor segments, from retail investors to institutional investors.
- 3. **Investment Philosophy:** Kotak Mahindra Mutual Fund follows a research-driven investment philosophy that is based on a strong understanding of the Indian market and its economic fundamentals. The company's investment approach is focused on identifying high-quality companies with strong growth potential and investing in them for the long term.
- 4. **Performance:** Kotak Mahindra Mutual Fund has a strong track record of performance across its product portfolio. The company has consistently delivered competitive returns to its investors, outperforming its benchmark indices and peers across various time horizons.
- 5. **Investor Education:** Kotak Mahindra Mutual Fund is committed to investor education and provides a range of resources and tools to help investors make informed investment decisions. The company conducts regular investor awareness programs and workshops to educate investors on various aspects of mutual fund investing.
- 6. **Awards and Recognition:** Kotak Mahindra Mutual Fund has received numerous awards and recognition for its investment performance, product innovation, and investor education initiatives. The company has been consistently recognized as one of the top mutual fund houses in India by various industry bodies and publications.

Overall, Kotak Mahindra Mutual Fund is a leading mutual fund company in India with a strong track record of performance, a diverse product portfolio, and a research-driven investment philosophy. The company's commitment to investor education and its focus on long-term value creation make it a preferred choice for investors looking to invest in the Indian mutual fund industry.

ICICI Prudential Mutual Fund is one of the largest mutual fund companies in India, with a strong brand presence and a wide range of investment solutions for investors. Here is an industry profile for ICICI Prudential Mutual Fund:



- 1. **Company Overview:** ICICI Prudential Mutual Fund is a joint venture between ICICI Bank, one of India's leading financial institutions, and Prudential Plc, a leading international financial services company. The company was founded in 1993 and has since grown to become one of the largest mutual fund houses in India.
- 2. **Product Portfolio:** ICICI Prudential Mutual Fund offers a wide range of mutual fund schemes across different asset classes, including equity, debt, hybrid, and solution-oriented funds. The company has a diverse product portfolio that caters to the investment needs of different investor segments, from retail investors to institutional investors.
- 3. **Investment Philosophy:** ICICI Prudential Mutual Fund follows a research-driven investment philosophy that is based on a strong understanding of the Indian market and its economic fundamentals. The company's investment approach is focused on identifying high-quality companies with strong growth potential and investing in them for the long term.
- 4. **Performance:** ICICI Prudential Mutual Fund has a strong track record of performance across its product portfolio. The company has consistently delivered competitive returns to its investors, outperforming its benchmark indices and peers across various time horizons.
- 5. **Investor Education:** ICICI Prudential Mutual Fund is committed to investor education and provides a range of resources and tools to help investors make informed investment decisions. The company conducts regular investor awareness programs and workshops to educate investors on various aspects of mutual fund investing.
- 6. **Awards and Recognition:** ICICI Prudential Mutual Fund has received numerous awards and recognition for its investment performance, product innovation, and investor education initiatives. The company has been consistently recognized as one of the top mutual fund houses in India by various industry bodies and publications.

Overall, ICICI Prudential Mutual Fund is a leading mutual fund company in India with a strong track record of performance, a diverse product portfolio, and a research-driven investment philosophy. The company's commitment to investor education and its focus on long-term value creation make it a preferred choice for investors looking to invest in the Indian mutual fund industry.

CHAPTER 4 :- OBJECTIVE OF STUDY & HYPOTHESIS
9 Sejal Padole MBA 2 nd year

OBJECTIVE OF STUDY

A mutual fund study aims to provide insights and analysis on the performance and characteristics of mutual funds, with the goal of informing investment decisions and improving investor outcomes.

Objectives of this study includes:

1. Performance Evaluation:

To evaluate the historical performance of mutual funds relative to benchmarks, peers, or other criteria, in order to identify top-performing funds and assess the potential for future returns.

2. Risk assessment:

To assess the risks associated with investing in mutual funds, including market risk, credit risk, liquidity risk, and other factors that may impact the performance of the fund.

3. Fund analysis:

To analyze the characteristics of mutual funds, such as their investment strategies, asset allocation, management team, expense ratios, and other factors that may influence their performance and suitability for investors.

4. Investor behavior:

To study the behavior of mutual fund investors, including their investment patterns, preferences, and decision-making processes, in order to identify trends and patterns that may impact fund flows and investor outcomes.

HYPOTHESIS OF STUDY

Null Hypothesis: H0: The performance of equity fund of all selected three companies does not show growth for last three years.

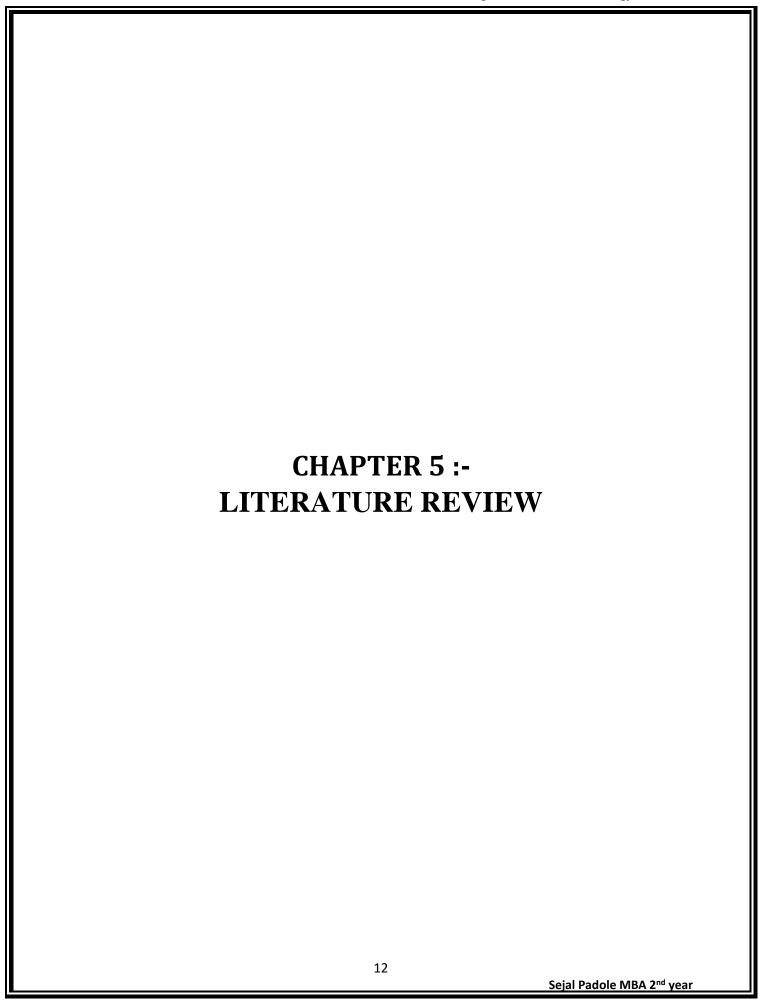
Alternative Hypothesis: H1: The performance of equity fund of all selected three companies show growth for last three years.

TYPES OF MUTUAL FUNDS IN INDIA:

By Investment Objective: While taking into account the investment objective, the Mutual fund can be divided into four types. Those are as follows:

- 1. Growth Schemes
- 2. Income Schemes
- 3. Balanced Schemes
- 4. Money Market Schemes
- 1. **Growth Schemes:** It provides capital appreciation over the medium to long-term. Such schemes normally invest a major part of their corpus in equities and involve comparatively high risks. The investors are facilitated with multiple options such as dividend, capital appreciation in investment which requires clear indication during investment. However, the investors are given change option at a later period. Comparatively, growth schemes are good for investors having a long-term outlook seeking appreciation over a period of time
- 2. **Income Schemes:** Income schemes are also known as debt schemes. It aims at providing safety of investments as well as regular income to the investors. Such schemes invest in instruments like bonds, debentures, government securities and commercial paper. This is relatively low risklow return investment avenue which is ideal for investors seeking a steady income, and/or who primarily seeks current income rather than growth of capital. It facilitates gaining of high dividends and interest as it is invested in stocks and bonds.
- 3. **Balanced Schemes:** The balanced scheme provides both growth and income periodically. It aims at distributing regular income and providing capital appreciation to the investors by balancing the investments of the corpus between the high growth equity shares and income earning securities.
- 4. **Money Market Schemes:** It provides easy liquidity, preservation of capital and moderate income. This scheme invests money in safer and short-term instruments like treasury bills, certificate of deposits, commercial paper and inter-bank call money.

In this research we will be discussing about the growth scheme for the purpose of basic strategy to invest and to identify the best mutual fund from selected scheme



LITERATURE REVIEW

Sharpe, William F. (1966) suggested a measure for the evaluation of portfolio performance. Drawing on results obtained in the field of portfolio analysis, economist Jack L. Treynor has suggested a new predictor of mutual fund performance, one that differs from virtually all those used previously by incorporating the volatility of a fund's return in a simple yet meaningful manner.

Jensen Michael (1968) developed a composite portfolio evaluation technique concerning riskadjusted returns. He evaluated the ability of 115 fund managers in selecting securities during the period 1945-66. Analysis of net returns indicated that, 39 funds had above average returns, while 76 funds yielded abnormally poor returns. Using gross returns, 48 funds showed above average results and 67 funds below average results. Jensen concluded that, there was very little evidence that funds were able to perform significantly better than expected as fund managers were not able to forecast securities price movements.

<u>Fama (1972)</u> developed methods to distinguish observed return due to the ability to pick up the best securities at a given level of risk from that of predictions of price movements in the market. He introduced a multi period model allowing evaluation on a period-by-period and on a cumulative basis. He branded that, return on a portfolio constitutes of return for security selection and return for bearing risk. His contributions combined the concepts from modern theories of portfolio selection and capital market equilibrium with more traditional concepts of good portfolio management.

M. Vijay Anand (2000) focused on the schemes of Birla Sunlife and the competitor's schemes available in the market. Author studied the analysis of Performance of Equity fund for 3 years and SWOT Analysis of Birla Sunlife by Literature survey and Delphi technique. In depth financial review the author identifies among the selected equity funds that earns higher returns than benchmark and competitors and concluded that Birla Sunlife performs well compared to the benchmarks and competitors.

In February 2003, following the repeal of the Unit Trust of India Act 1963 UTI was bifurcated into two separate entities. One is the Specified Undertaking of the Unit Trust of India with assets under management of Rs. 29,835 crores as at the end of January 2003, representing broadly, the assets of US 64 scheme, assured return and certain other schemes. The Specified Undertaking of Unit Trust of India, functioning under an administrator and under the rules framed by Government of India and does not come under the purview of the Mutual Fund Regulations.

<u>Subha and Bharathi (2007)</u> study was carried out for open end mutual fund schemes of sample of 51 schemes chosen by convenient sampling method. NAV's were taken for a period of one year from 1st October 2004 to 30th September, 2005. Out of the 51 funds as many as 18 schemes earned higher returns than the market return. The remaining 33 funds generated lower returns than the market return.

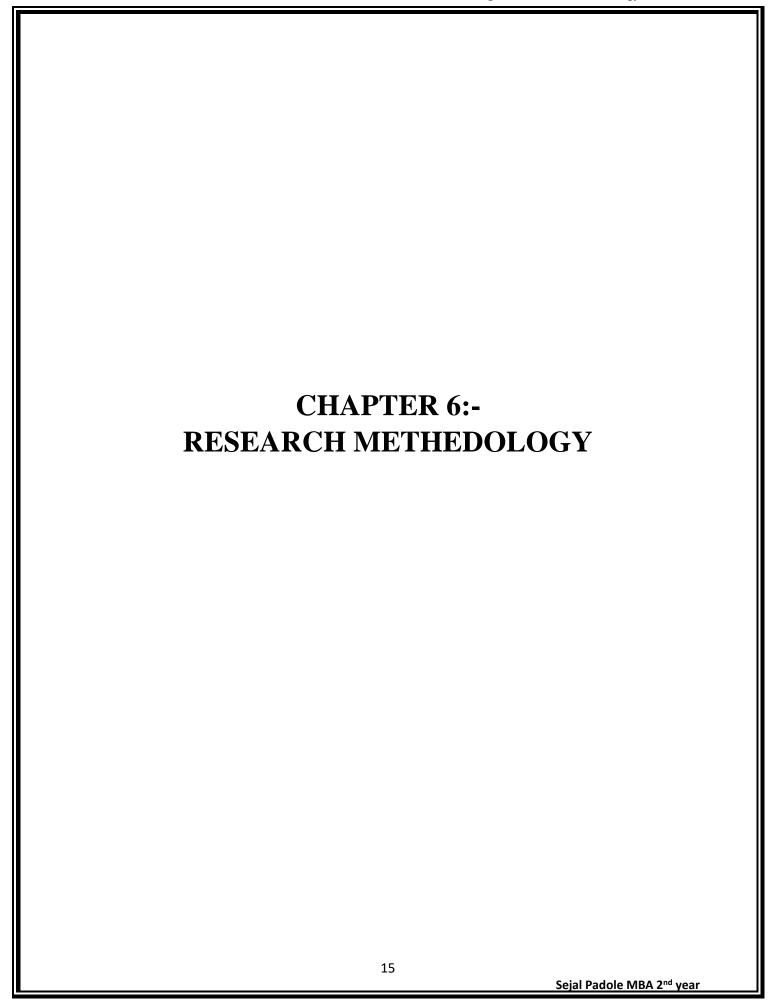
<u>Dubravo Mihaljek (2008</u>) focused on particular the implications of policy responses. He has identified two important issues: i) under estimation of the build-up in credit risk arising from rapid credit growth, ii) Risk of a sharp slowdown or reversal in bank-intermediated capital flows.

Agarwal, R K. et al. (2010) has reviewed since long the performance of mutual funds has been receiving a great deal of attention from both practitioners and academics. With an aggregate investment of trillion dollars in India, the investing public's interest in identifying successful fund managers is understandable. From an academic perspective, the goal of identifying superior fund managers is interesting as it encourages development and application of new models and theories.

<u>Dhanda (2011)</u> made an attempt to study the performance evaluation of selected open-ended schemes in terms of risk and return relationship by using rate of return, Beta, Standard Deviation, Sharp Ratio and Treynor Ratio. BSE-30 has been used as a benchmark to study the performance of mutual fund in India and the study period has been taken from April 1, 2009 to March 31, 2011. The finding of the study revealed that only three scheme have performed better than benchmark. Kumar Lenin Nooney and Devi Rama. A Study of performance of mutual fund has become more controversial. Conversely, Rajesh Kumar,

Rituraj Chandrakar (2012) evaluates the performance of 29 open-ended, growth-oriented equity schemes for the period from April 2005 to March 2011 (six years) of transition economy. The study revealed that 14 out of 29 (48.28 percent) sample mutual fund schemes had outperformed the benchmark return. The results also showed that some of the schemes had underperformed; these schemes were facing the diversification problem.

Dr.R.Narayanasamy, v.rathnamani, (2013) evaluate the performance of selected equity large cap mutual funds schemes in terms of risk- return relationship. The performance analysis of the selected five equity are large cap funds. The study may conclude that all the funds have performed well in the high volatile market movement expect Reliance vision



RESEARCH METHEDOLOGY

Concept of mutual fund and equity fund

Mutual funds and equity funds are related concepts, as equity funds are a type of mutual fund. Here's an overview of both concepts:

Mutual Fund: A mutual fund is a type of investment vehicle that pools money from multiple investors to purchase a diversified portfolio of securities such as stocks, bonds, or other financial instruments. The mutual fund is managed by a professional fund manager who uses the pooled funds to invest in various assets with the aim of generating returns for the investors. The ownership of a mutual fund is divided into units or shares, and investors are allocated units or shares based on the amount of money they contribute to the fund. The value of each unit or share is determined by the net asset value (NAV) of the fund, which is calculated by dividing the total value of the fund's assets by the number of units or shares outstanding.

Equity Fund: An equity fund is a type of mutual fund that primarily invests in stocks. Equity funds can be further classified into various sub-categories based on their investment objectives and the types of stocks they invest in. For example, large-cap equity funds invest in large-cap stocks, while mid-cap equity funds invest in mid-cap stocks. Similarly, thematic equity funds invest in a particular theme or sector such as technology, healthcare, or energy.

Equity funds are generally considered to be riskier than debt funds, as stocks can be more volatile and subject to market fluctuations. However, equity funds also have the potential to generate higher returns over the long term, as the value of stocks can appreciate significantly over time.

Overall, mutual funds and equity funds provide investors with a convenient and accessible way to invest in a diversified portfolio of securities managed by professional fund managers. However, investors should carefully evaluate the fund's investment objectives, historical performance, management team, expense ratios, and risk management practices before making any investment decisions.

The term Equity literally means the stock or ownership of a company. They are also known as ordinary shares. The rate of dividend on equity shares varies according to the amount of profit available and the intention of board of directors. In the event of winding up of the company, equity shares can be refunded only after all other claims, including those of preference shares for the refund of their capital, have been met.

Equity capital or financing is money raised by a business in exchange for a share of ownership in the company, Ownership is represented by owning shares of stock outright or having the right to convert other financial instruments into stock of that private company. Two key sources of equity capital for new and emerging businesses are angel investors and venture capital firms.

Equity capital is represented by funds that are raised by a business, in exchange for a share of ownership in the company. Equity financing allows a business so obtain funds without incurring debt, or without having to repay a specific amount of money at particular time

The Equity Capital Markets Group (ECM) oversees the Firm's activities in the primary equity and equity-linked markets, as well as monetization and equity derivatives. It provides support in the origination of primary market transactions and manages their structuring, syndication, marketing and distribution

The world over, it's been shown that over long tenures, equities-with their risk premier have provided approximately 7 percentage points higher returns than risk-free options. People have to accumulate significant amounts of wealth during their working years. Right now, a 17-year bond gives you only 5.5 per cent. So, it is imperative that these people have some exposure to equity

A mutual fund is a trust that pools the money of many investors-its shareholders to invest in a variety of different securities. Investments may be in stocks, bonds, money market securities or some combination of these. Those securities are professionally managed on behalf of the shareholders, and each investor holds a pro a

share of the portfolio - entitled to any profits when the securities are sold, but subject to any losses in value as well.

A mutual fund is a group of investors operating through a fund manager to purchase a diverse portfolio of stocks or bonds. There are myriad kinds of mutual funds, each with its own goals and methodologies. Whether or not a mutual fund is a good investment is a matter of much public debate, with many claiming they are excellent for the average person, and others saying they are simply a poor way to invest

For the individual investor, mutual funds provide the benefit of having someone else manage your investments, take care of recordkeeping for your account, and diversify your rupees over many different securities that may not be available or affordable to you otherwise. Today, minimum investissent requirements on many funds are low enough that even the smallest investor can get started in mutual funds.

A mutual fund, by its very nature, is diversified in assets are invested in many different securities. Beyond that, there are many different types of mutual funds with different objectives and levels of growth potential, furthering your chances to diversify. Many critics of mutual funds point out that scarcely over 20% of mutual funds outperform the Standard and Poor's 500 Indes. This means that nearly 80% of the time, an investor would have been more profitable by simply buying equal shares in all 500 of the companies currently on the S&P 500.

Analyze the risk adjusted return of each scheme using various performance metrics

To analyze the risk-adjusted return of each scheme of Aditya Birla Mutual Fund, Kotak Mahindra Mutual Fund, and ICICI Mutual Fund, we can use various performance metrics. Here are some commonly used performance metrics:

1. **Sharpe Ratio**: Sharpe's Performance Index The Sharpe ratio is most extensively used for the calculation of risk – adjusted return. This ratio is the average return earned in excess of the risk-free rate per unit of volatility or total risk. Sharpe ratio evaluates risk and return together to help the investors to choose the investment that generates higher return but optimal risk taken. The difference between the average return of a fund and the risk-free investment gives us return generated by the fund by taking risk and standard deviation is the risk of portfolio. Mathematically, shape ratio is represented as the difference between the average return of a portfolio and the risk free invest divided by standard deviation.

$S(P) = (Rp - Rf) / \sigma(p)$

Where, Rp = Average return of portfolio, Rf = Risk free rate and $\sigma = Standard$ deviation of portfolio

2. **Treynor Ratio:** The Treynor ratio have the similarities with the Sharpe ratio. The difference between two metrics is that to measure volatility instead of using total risk (standard deviation). The Treynor ratio utilizes beta and the ratio is based on the principle that risk intrinsic to the entire market (represented by beta).

Treynor ratio is the difference between the average return of a fund and the riskfree investment divided by the beta. The risk premium depends on the systematic risk assumed in a portfolio.

$Tn(P)(Rp-Rf)/\beta(p)$

Where, Rp = Average return of portfolio, Rf = Risk free rate and $\beta = Measure$ of systematic risk.

3. **Jensen's Alpha:** The risk adjusted performance measure known as the Jensen's measure, that denotes the average return portfolio or investment above or below that projected by CAPM (capital asset pricing model) given the portfolio's or investment's

beta and the average market return. In this measure a definite standard is set and against that the performance is measured, so it is mentioned as a measure of absolute performance. The standard is based on the manager's predictive ability. The basic model of Jensen is given below

$$\mathbf{R}\mathbf{p} = \alpha + \beta (\mathbf{R}\mathbf{m} - \mathbf{R}\mathbf{f})$$
 Where,

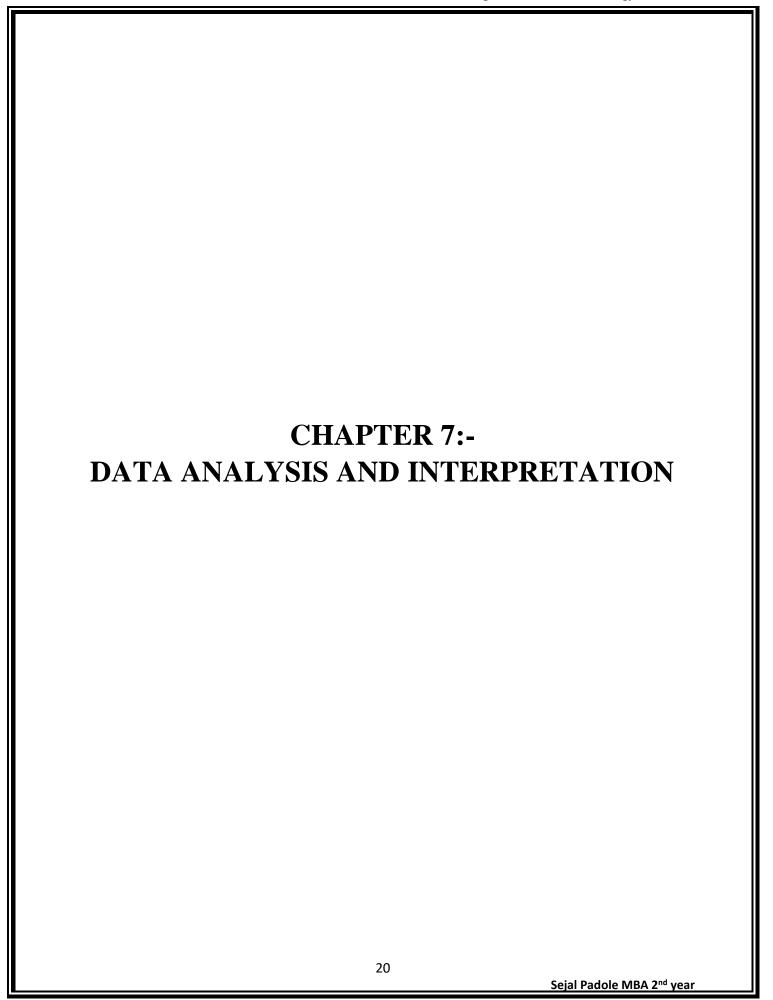
Rp = Average return of portfolio, Rf = Risk free rate, α = The intercept, β = Measure of systematic risk and Rm = average

market return

4. **Information Ratio:** The Information Ratio measures the excess return of a portfolio relative to its benchmark, per unit of tracking error, as measured by the portfolio's standard deviation relative to the benchmark. A higher Information Ratio indicates better risk-adjusted performance.

To calculate the risk-adjusted return of each scheme using these metrics, we would need to obtain the relevant data on the performance of each scheme and its benchmark over the relevant time period (in this case, the past 3 years). We would then calculate each metric for each scheme and compare the results across schemes to identify the top-performing funds on a risk-adjusted basis.

It is important to note that while these performance metrics can be useful in comparing the risk-adjusted returns of different mutual funds, they are not the only factors to consider when making investment decisions. Other factors such as the fund's investment strategy, historical performance, management team, expense ratios, and risk management practices should also be carefully evaluated before making any investment decisions.

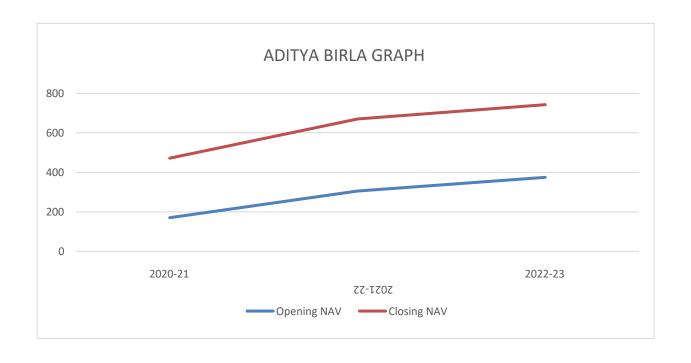


DATA ANALYSIS AND INTERPRETATION

LARGE CAP MUTUAL FUND

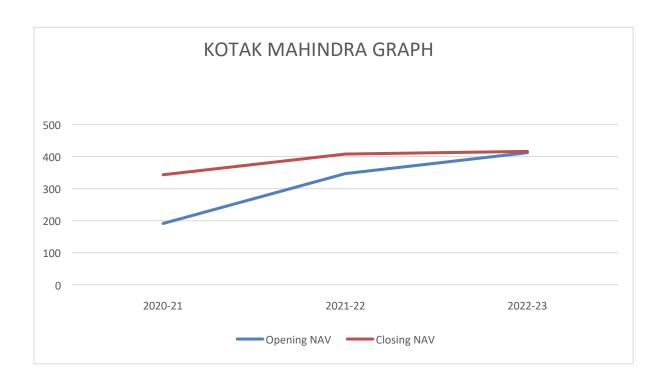
• ADITYA BIRLA BLUECHIP LARGE CAP MUTUAL FUND (direct growth) Growth

Year	Opening NAV	Closing NAV
2020-21	170.3	301.57
2021-22	305.53	364.68
2022-23	374.85	368.07



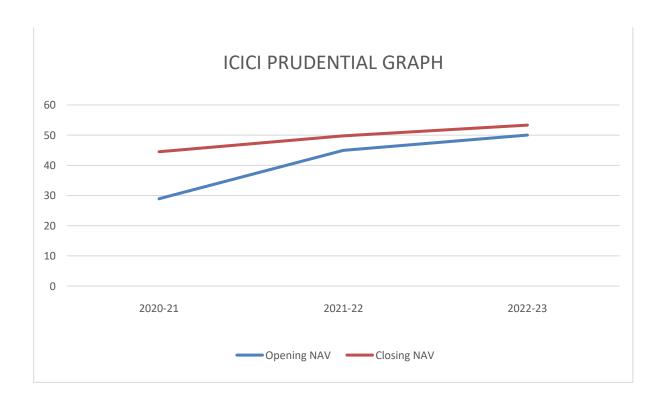
• KOTAK MAHINDRA BLUECHIP LARGE CAP MUTUAL FUND (direct growth) Growth

Year	Opening NAV	Closing NAV
2020-21	191.10	343.04
2021-22	346.43	407.47
2022-23	411.916	415.90



• ICICI PRUDENTIAL BLUECHIP LARGE CAP MUTUAL FUND (direct growth) Growth

Year	Opening NAV	Closing NAV
2020-21	28.93	44.5
2021-22	44.93	49.76
2022-23	50.03	53.32



LARGE CAP MUTUAL FUND BLUECHIP (direct plan) Growth

NAME OF SCHEME	NAV for 2020	Total Return For 2020(%)	NAV for 2021	Total Return For 2021(%)	NAV for 2022	Total Return For 2022(%)
ADITYA	170.3	1.77%	305.53	1.19	374.85	0.98
BIRLA LARGE CAP (DG) G						
KOTAK MAHINDRA LARGE CAP (DG) G	191.104	1.79	346.439	1.17	411.916	1.00
ICICI LARGE CAP (DG) G	23.93	1.53	44.93	1.10	50.03	1.06

Working note:-

Unit purchased = 10000/170.3 = 58.71 Closing value = 58.71*301.57 = 17705.17 Return percent = 17705.17/10000 = **1.77%**

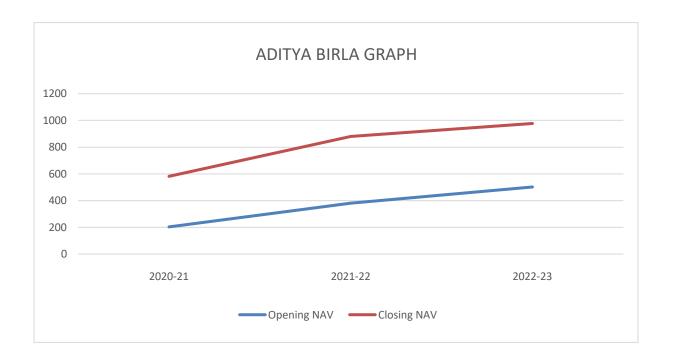
Interpretation of Graph

- After 2019-20 (pandemic) there was jump in nav in all scheme
- By the time return percent in all the scheme increase slightly
- Graph shows slightly k in all the closing nav

Mid Cap mutual fund.

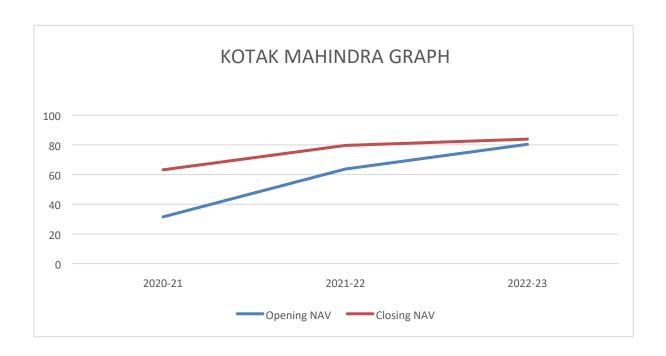
Aditya Birla Sun Life Mid Cap Direct Fund-Growth

Year	Opening NAV	Closing NAV
2020-21	203.34	378.43
2021-22	381.12	499.1
2022-23	502.14	475.08



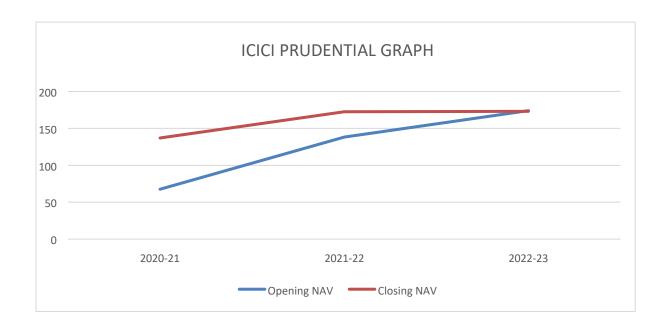
Kotak Emerging Equity Fund Direct-Growth

Year	Opening NAV	Closing NAV
2020-21	31.47	63.18
2021-22	63.74	79.61
2022-23	80.36	83.85



ICICI Prudential Midcap Direct Plan-Growth

Year	Opening NAV	Closing NAV
2020-21	67.59	137.02
2021-22	138.34	172.62
2022-23	174.03	173.10



MULTI CAP MUTUAL FUND BLUECHIP (direct plan growth)

NAME OF SCHEME	NAV for 2020	Total Return For 2020(%)	NAV for 2021	Total Return For 2021(%)	NAV for 2022	Total Return For 2022(%)
ADITYA	203.34	1.86	381.12	1.30	502.14	0.94
BIRLA MIDCAP (DG) G						
KOTAK MAHINDRA MIDCAP CAP (DG) G	31.47	2.00	63.74	1.24	80.36	1.04
ICICI MIDCAP CAP (DG) G	67.59	2.02	138.34	1.24	174.03	0.99

Interpritaion:-

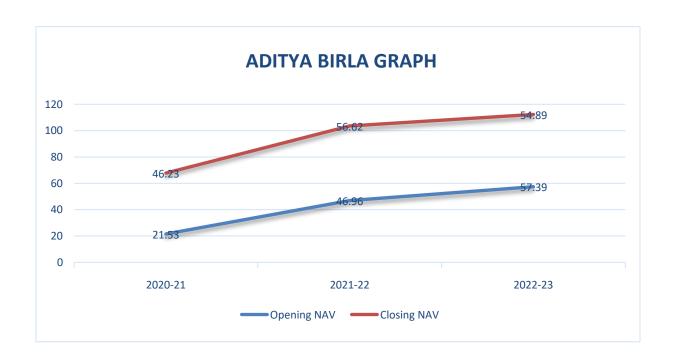
Unit purchased = 10000/203.34 = 49.17 Closing value = 49.17*381.12 = 18739.67 Return percent = 18739.67/10000 = **1.86**

Graph interpretation

- After 2019-20 (pandemic) there was jump in nav in all scheme
- There is long gap between the opening and closing nav of Aditya Birla as compare to ICICI & Kotak Mahindra.
- Slightly increase in nav every year in all selected scheme
- 2022-23 there is an same return in ICICI & MAHINDRA but long change in Aditya Birla

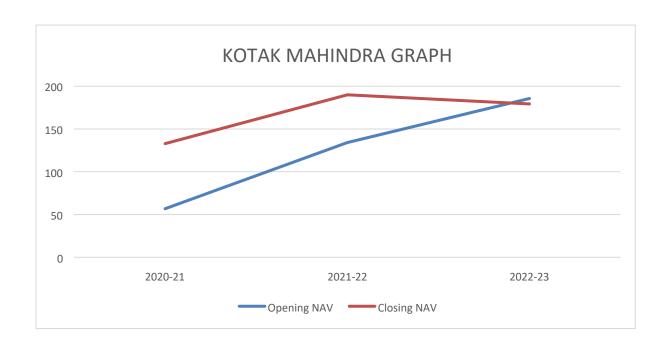
Aditya Birla Sun Life Small Cap Fund Direct-Growth

Year	Opening NAV	Closing NAV
2020-21	21.53	46.23
2021-22	46.96	56.62
2022-23	57.39	54.89



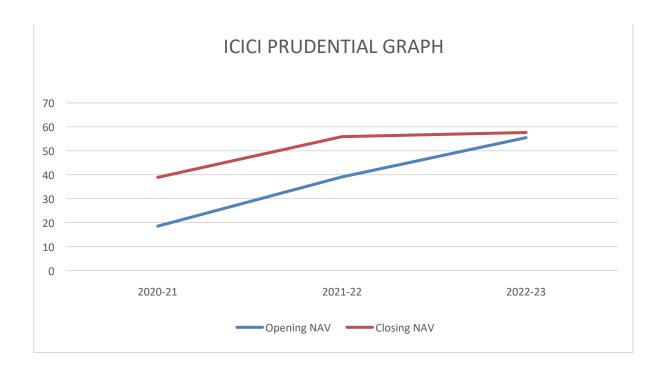
Kotak Small Cap Fund Direct-Growth

Year	Opening NAV	Closing NAV
2020-21	56.79	132.89
2021-22	134.18	183.98
2022-23	185.65	179.40



ICICI Prudential Smallcap Fund Direct Plan-Growth

Year	Opening NAV	Closing NAV
2020-21	18.5	38.88
2021-22	39.1	55.9
2022-23	55.48	57.63



SMALL CAP MUTTUAL FUND

NAME OF SCHEME	NAV for 2020	Total Return For 2020(%)	NAV for 2021	Total Return For 2021(%)	NAV for 2022	Total Return For 2022(%)
ADITYA BIRLA SMALLCAP (DG) G	21.53	2.14	46.96	1.20	57.39	0.95
KOTAK MAHINDRA SMALLCAP CAP (DG) G	56.79	2.33	134.188	1.37	185.65	0.96
ICICI SMALLCAP CAP (DG) G	18.5	2.10	39.1	1.42	55.48	1.03

Interpretations:-

Unit purchased =10000/21.53 = 464.46

Present cost value 464.46*46.96 = 21811.04

Return percent = 21811.04/10000 = 2.14

Graph interpretation

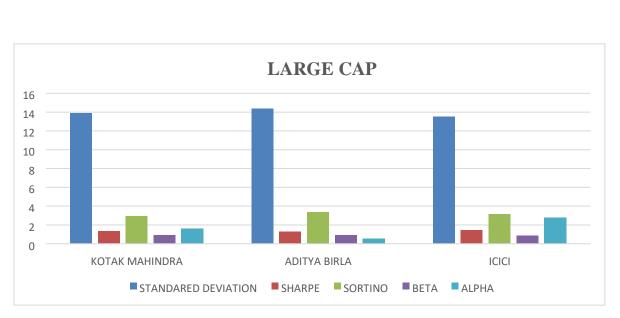
- After 2019-20 (pandemic) there was jump in nav in all scheme in 2020
- As per small cap investment till year 2021 opening and closing nav of all scheme were parallel
- In 2023 the nav of Kotak and ICICI were almost on the same range except in Aditya Birla there was the great difference in opening and closing

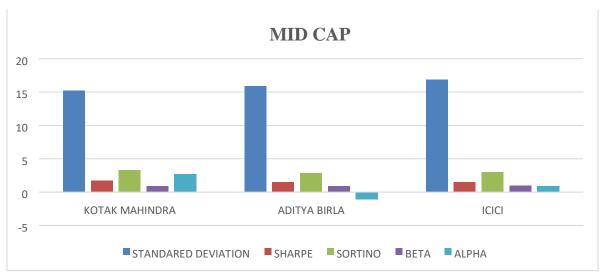
RATIO FOR THE SELECTED MUTUAL FUND

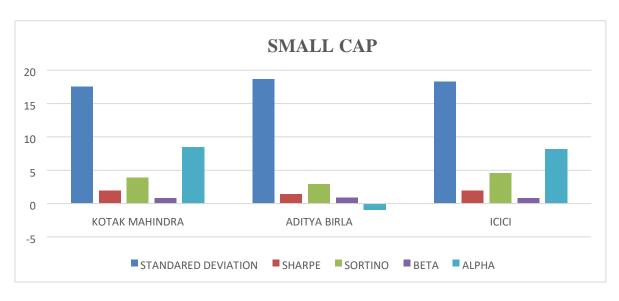
LARGE CAP	STANDARED DEVIATION	SHARPE RATIO	SORTINO RATIO	ВЕТА	ALPHA
KOTAK MAHINDRA	13.89	1.36	2.97	0.91	1.60
ADITYA	14.40	1.29	3.40	0.95	0.56
BIRLA					
ICICI	13.54	1.44	3.19	0.88	2.81

MID CAP	STANDARED DEVIATION	SHARPE RATIO	SORTINO RATIO	BETA	ALPHA
KOTAK MAHINDRA	15.25	1.74	3.31	0.91	2.71
ADITYA	15.86	1.47	2.85	0.93	-1.10
BIRLA	1.5.00	1.50	2.00	0.00	0.00
ICICI	16.83	1.53	2.98	0.99	-0.08

SMALL CAP	STANDARED DEVIATION	SHARPE RATIO	SORTINO RATIO	ВЕТА	ALPHA
KOTAK MAHINDRA	17.54	1.92	3.92	0.80	8.48
ADITYA BIRLA	18.64	1.44	2.87	0.89	-0.94
ICICI	18.26	1.89	4.55	0.84	8.13





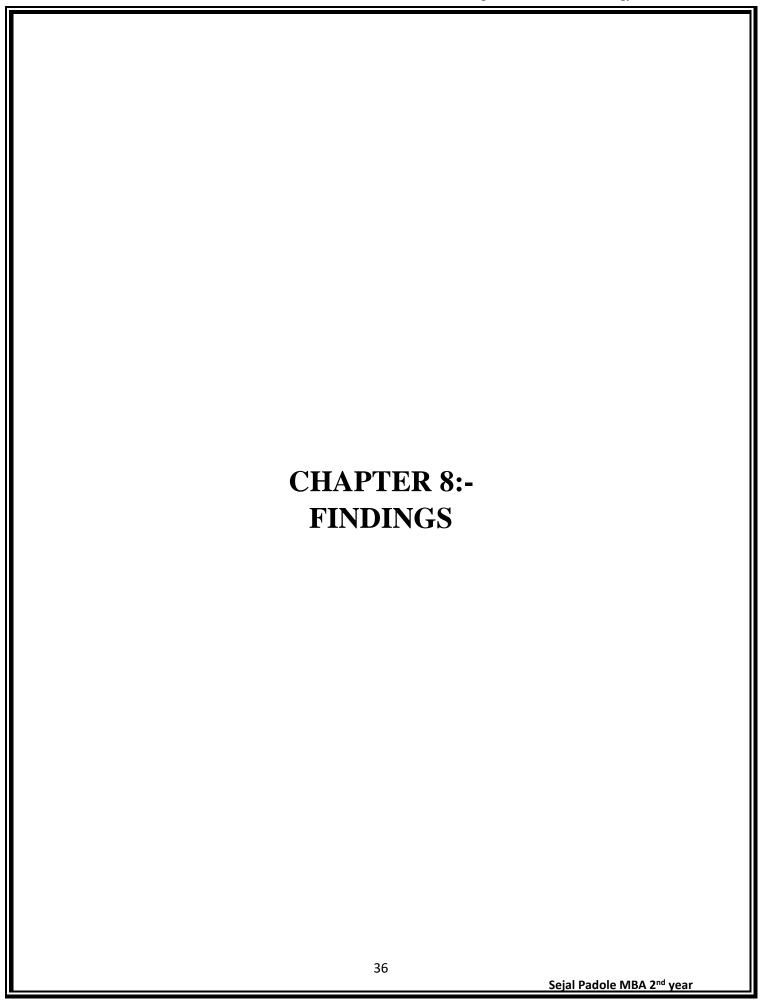


HYPOTHESIS TESTING

H0: The performance of equity fund of all selected three companies does not show growth for last three years.

H1: The performance of equity fund of all selected three companies show growth for last three years.

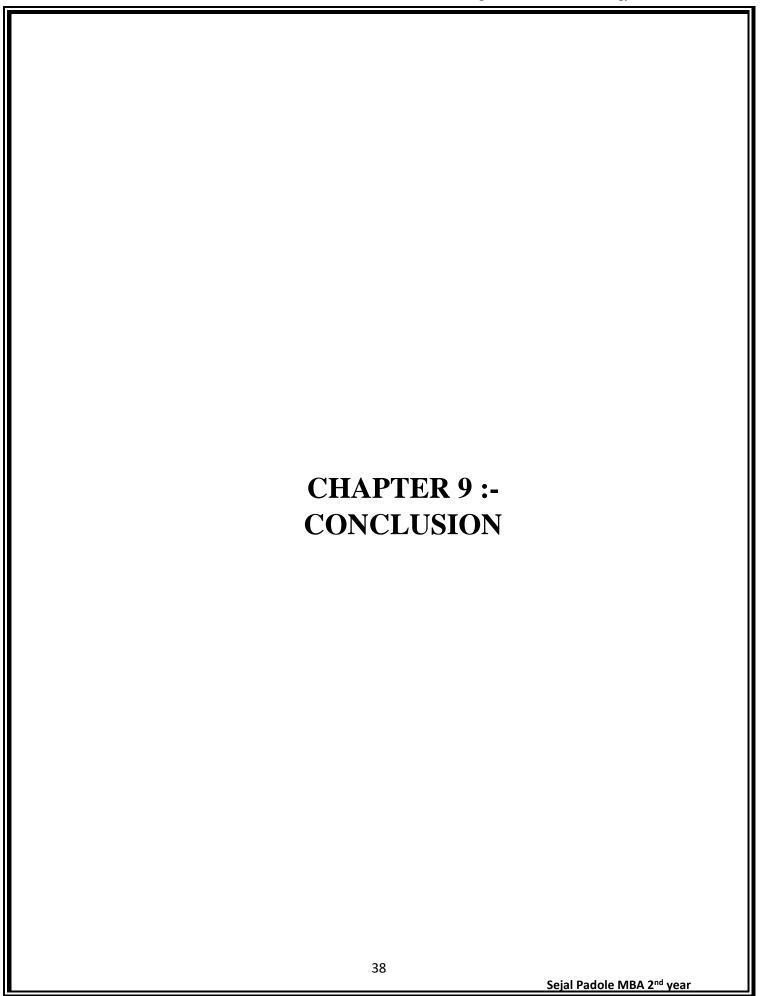
From the above research study it is found that among above hypothesis number one alternative hypothesis i.e H1, "The performance of equity fund of all selected three companies show growth for last three years" is found to be true hence accepted where as null hypothesis i.e H0, "The performance of equity fund of all selected three companies does not show growth for last three years" is rejected.



FINDINGS

Interpretation of data

- As per the data **Kotak Mahindra small cap direct** (**G**) has given maximum return points in selected years (46.78)
- After that **ICICI prudential small cap** has given (46.10) points return
- Standard deviation of the small cap has increase as per duration as compare to midcap and large cap
- In large cap sortino ratio increase continues as higher return per unit of downside risk
- In large cap Kotak Mahindra has given the best and highest return and lowest by Aditya Birla
- A constant return is given by ICICI in long run
- As per mid cap highest return given by Aditya Birla and lowest by ICICI
- In mid cap Kotak Mahindra has consistency every year
- Small cap highest & lowest return given by Aditya Birla
- Constant performed by ICICI
- Standard deviation of the small cap has increase as per duration as compare to midcap and large cap

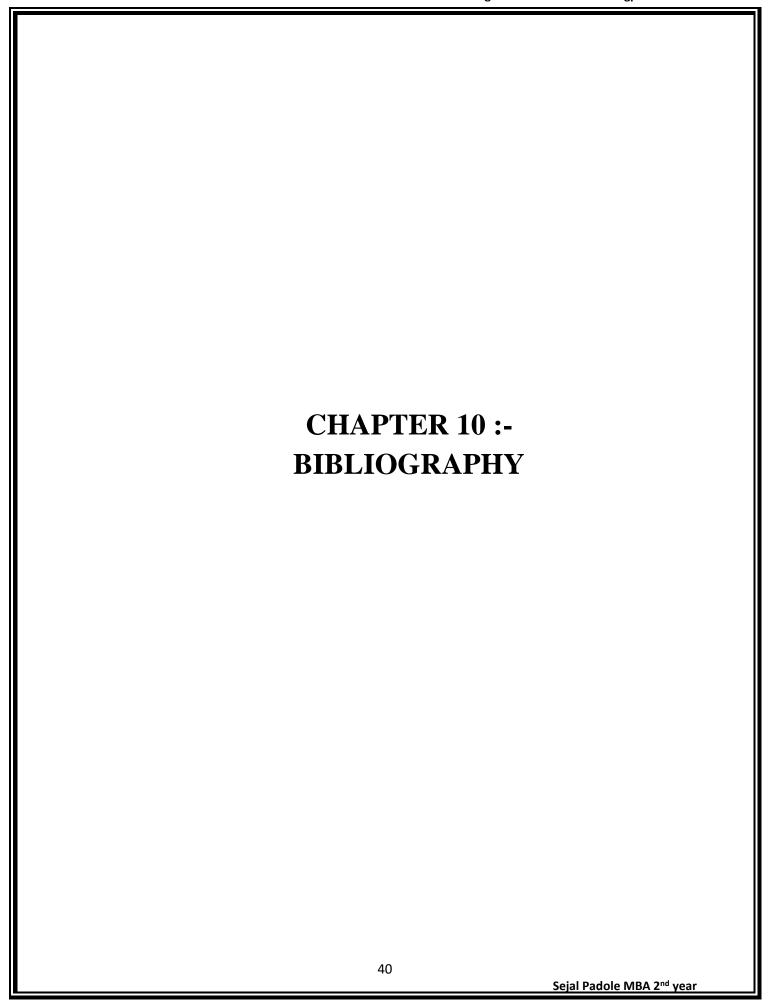


CONCLSUSION

As per the data and graph present of selected scheme and year of different cap conclusion as follow:-

- It IS clear that all the funds have performed well during the study period
- In the ultimate analysis it may be concluded that all the funds have performed well in the high volatile market movement expect Reliance vision. therefore
- it is essential for investors to consider statistical parameters like alpha, beta, standard deviation while investing in mutual funds apart from considering NAV and TOTAL RETURN in order to ensure consistent performance of mutual funds.
- If the investors wants to go for less risk fund then they should go for higher rank in the Treynor measure.
- The investors who wants to diversify their funds and get higher rate of return should go for higher rank in Sharpe measure.
- As per large cap best and consistent return by
 - 1 ICICI
 - 2 KOTAK MAHINDRA
 - 3 ADITYA BIRLA
- As per Mid cap best and consistent return by
 - 1 KOTAK MAHINDRA
 - 2 ICICI
 - 3 ADITYA BIRLA
- As per small cap best and consistent return by
 - 1 ICICI
 - 2 KOTAK MAHINDRA
 - 3 ADITYA BIRLA

conclusion icici is the better option to invest as compare to the data of selected scheme



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