A PROJECT REPORT ON PORTFOLIO CONSTRUCTION AT KOTAK SECURITIES

A project report submitted to **Srinivas University** in partial fulfilment of the requirement for The Award of Degree in

MASTER OF BUSINESS ADMINISTRATION

BY

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July-2020

DECLARATION

I, Mr. Mohammed Mufeed student of MBA, belongs to College of Management and Commerce, SRINIVAS UNIVERSITY, declare that this Project Report entitled **"A PROJECT REPORT ON PORTFOLIO CONSTRUCTION AT KOTAK SECURITIES"** is the result the of dissertation work done by me under the supervision of PROF. SHREEPATHY RANGABATTA.B at Srinivas University.

I am submitting this Dissertation in partial fulfilment of the requirements for the award of the degree of Master of Business Administration in Finance by the Srinivas University during the academic year 2019- 2020.

I declare that this project report has been tested for plagiarism, and has passed the plagiarism test with the similarity score less than 25% and it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

I further declare that this project /dissertation report or any part of it has not been submitted for award of any other Degree / Diploma of this University or any other University/ Institution.

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ACKNOWLEDGEMENT

"The value of special people cannot be measured but only treasured"

First of all, I thank god almighty for the incessant grace showed on me, any research work only the efforts of many people are put together. I would like to owe a department of gratitude to so many persons who guided and supported this endeavour.

It is the duty to thank, at the very onset, **Dr. P. S Aithal, Vice chancellor, Srinivas University, Pandeshwar, Mangalore** for giving an opportunity to undertake this project.
I deeply indebted to my guide, **Prof. Shreepathy Rangabatta.B**, **Department of Management and Commerce, Srinivas University, Pandeshwar, Mangalore**, whose patience, Valuable, time and personnel attention made this, study a fruitful one. I thank to my guide for excellence guidance, constant support, and timely evaluation and suggestion were given to me in order to furnish the data and for completion of this dissertation as well as behalf of this study, I have learnt many things from my guide during my post-graduation.
Last but not the least, I would say that it is the love and prayers of my family and friends who have backed me with moral support and lot more than words can express to complete this dissertation work.

PLACE: MANGALORE

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EXCUTIVE SUMMARY

Investing in equities requires time, knowledge and constant monitoring of the market .For those who need an expert to help to manage their investments, portfolio management service (PMS) comes as an answer .The business of portfolio management has never been an easy one. Juggling the limited choices at hand with the twin requirements of adequate safety and sizeable returns is a task fraught with complexities. Given the unpredictable nature of the market it requires solid experience and strong research to make the right decision in the end it boils down to make the right move in the right direction at the right time. That's where the expert comes in.

The term portfolio management in common practice refers to selection of securities and their continuous shifting in a way that the holder gets maximum returns at minimum possible risk. Portfolio management services are merchant banking activities recognized by SEBI and these activities can be rendered by SEBI authorized portfolio managers or discretionary portfolio managers. A portfolio manager by the virtue of his knowledge, background and experience help his client to make investment in profitable avenues. A portfolio manager has to comply with the provisions of the SEBI (portfolio managers) rules and regulations, 1993.

This project includes is an attempt to implement the academic or theoretical knowledge in practical domain. At Kotak securities, on soliciting an opportunity to work under portfolio management stream of activities, authorities concerned have suggested few random securities popular in the equity market in India. With the help of Sharpe's single index model of portfolio construction, attempt was made to construct an optimum portfolio out of six identified company's securities.

As a result of that it was concluded that with the help of only two companies out of six an optimum portfolio was able to be formed. Corresponding calculations and logics and pertinent details are elaborated with some inference on the result under this report

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INTRODUCTION

1.1. INTRODUCTION TO INVESTMENT

Investment may be defined as an activity that commits funds in any financial form in the present with an expectation of receiving additional return in the future. The expectations bring with it a probability that the quantum of return may vary from a minimum to a maximum. This possibility of variation in the actual return is known as investment risk. Thus every investment involves a return and risk.

Investment is an activity that is undertaken by those who have savings. Savings can be defined as the excess of income over expenditure. An investor earns/expects to earn additional monetary value from the mode of investment that could be in the form of financial assets.

The three important characteristics of any financial asset are:

- Return-the potential return possible from an asset.
- Risk-the variability in returns of the asset form the chances of its value going down/up.
- Liquidity-the ease with which an asset can be converted into cash.

Investors tend to look at these three characteristics while deciding on their individual preference pattern of investments. Each financial asset will have a certain level of each of these characteristics.

Investment Avenues

There are a large number of investment avenues for savers in India. Some of them are marketable and liquid, while others are non-marketable. Some of them are highly risky while some others are almost risk less.

Investment avenues can be broadly categorized under the following heads:

- Corporate securities
- Equity shares.
- Preference shares.
- Debentures/Bonds.
- Derivatives.
- Others

Corporate Securities

Joint stock companies in the private sector issue corporate securities .These include equity shares, preference shares, and debentures .Equity shares have variable dividend and hence belong to the high risk-high return category; preference shares and debentures have fixed returns with lower risk.

The classification of corporate securities that can be chosen as investment avenues can be depicted as shown below:

- Equity Shares
- Preference shares
- Bonds
- Warrants
- Derivative

Equity Shares

By investing in shares, investors basically buy the ownership right to the company. When the company makes profits, shareholders receive their share of the profits in the form of dividends. In addition, when company performs well and the future expectation from the company is very high, the price of the company's shares goes up in the market. This allows shareholders to sell shares at a profit, leading to capital gains .Investors can invest in shares either through primary market offerings or in the secondary market. The primary market has shown abnormal returns to investors who subscribed for the public issue and were allotted shares.

Stock Exchange

In a stock exchange a person who wishes to sell his security is called a seller, and a person who is willing to buy the particular stock is called as the buyer .The rate of stock depends on the simple law of demand and supply. If the demand of shares of company x is greater than its supply then its price of its security increases.

In Online Exchange the trading is done on a computer network. The sellers and buyers log on to the network and propose their bids. The systemized signed in such ways that at any given instance, the buyers/sellers are bidding at the best prices

An economist says when people earn a rupee; they do one of two things with it: they either consume it or save it. A person consumes a rupee by spending it on something like a car, clothing or food. People also consume some of their money involuntarily because they must pay tax; a person saves a rupee by somehow putting it aside for consumption at a later time.

A distinction can be made between saving and investing. Saving involves putting money away with little, if any, risk saving rupee. Putting money in a bank certificate of deposit or a passbook account is saving. A saver knows the future return, and the account is probably insured by the Federal deposit Insurance Corporation (FDIC), a government agency that protects deposit or against bank failure. In the short-run, saving involves few worries. Investing also involves putting money away, but in a risky endeavor. Buying shares of stock in a NATIONAL STOCK EXCHANGE listed company is investing. If an investor choose to let a broker hold the shares and just send an account statement each month, his or her investment is protected against theft, loss, or brokerage firm failure by the SECURITIES &EXCHANGE BOARD OF INDIA but not against a decline in value. Depending on the particular stock purchased and other holdings, an investor may have plenty to worry about. Both saving and investing amount to consumption shifting through time. By not spending a Rupee today, a person is able to spend more lately, assuming of course, the person saved or invested wisely. ***Investing is risky but saving is not.***

Investment Alternatives

a) Assets:

Assets are things that people own. The two kinds of assets are financial assets and real assets. The distinction between these terms is easiest to see from an accounting viewpoint. A **financial asset** carries a corresponding liability somewhere. If an investor buys shares of stock, they are an asset to the investor but show up on the right side of the corporation's balance sheet .A financial asset, therefore, is on the left-hand side of the owner's balance sheet and the right-hand side of the issuer's balance sheet. A **real asset** does not have a corresponding liability associated with it, although one might be related to finance the real asset. **Financial assets have a corresponding liability but real assets do not.**

b) **Securities**:

A **security** is a legal document that shows an ownership interest. Securities have historically been associated with financial assets such as stocks and bonds, but in recent years have also been used with real assets. **Securitization** is the process of converting an asset or collection of assets into a more marketable forum.

i. **Security Groupings:** Securities are placed in one of three categories: equity securities, fixed income securities or derivative assets.

1. **Equity Securities:** The most important equity security is common stock. Stock represents ownership interest in a corporation. Equity securities may pay dividends from the company's earnings, although the company has no legal obligation to do so. Most companies do pay dividends, and most companies try to increase these dividends on a regular basis.

2. Fixed Income Securities:

A fixed income security usually provides a known cash flow with no growth in the incomes term. Bonds are the most important fixed income securities. A bond is a legal obligation to repay a loan's principal and interest, but carries no obligation to pay more than this. Interest is the cost of borrowing money. Although accountants classify preferred stock as an equity security, the investment characteristics of preferred stock are more like those of affixed income security. Most preferred stocks pay a fixed annual dividend that does not change overtime consequently. An investment manager will usually lump preferred shares with bonds rather than with common stocks. Conversely, a convertible bond is a debt security paying a fixed interest rate. It has the added feature of being convertible into shares of common stocks by the bond holders. If the terms of the conversion feature are not particularly attractive at a given moment, the bonds behave like a bond and are classified as fixed income securities .On the other hand ,rising stock prices make the bond act more like the underlying stock, in which case the bond might be classified as an equity security. The point is that one cannot generalize and group all stock issues as equity securities and all bonds as fixed income securities. Their investment characteristics determine how they are treated. For investment purposes, preferred stock is considered a fixed income security.

3. Derivative Assets: Derivative assets have received a great deal of attention in the 1990s. A derivative asset is probably impossible to define universally. In general, the value of such an asset derives from the value of some other asset or the relationship between several other assets. Future and options contracts are the most familiar derivative assets. These building blocks of risk management programs are used by all large investment houses and commercial banks. **The three broad categories of securities are equities, fixed income securities, and**

derivative asset.

i. A good way to begin understanding what portfolio management is (and is not) may be to define the term portfolio .In a business context, we can look to the mutual fund industry to explain the term’s origins.

ii. Morgan Stanley's Dictionary of Financial Terms offers the following explanation:

iii. It says if you own more than one security, you have an investment portfolio. You build the portfolio by buying additional stocks, bonds, mutual funds, or other investments .Your goal is to increase the portfolio's value by selecting investments that you believe will go up in price.

iv. According to modern portfolio theory, you can reduce your investment risk by creating a diversified portfolio that includes enough different types or classes, of securities so that at least some of them may produce strong returns in any economic climate.

v. Note that this explanation contains a number of important ideas: A portfolio contains many investment vehicles.

vi. Owning a portfolio involves making choices -- that is, deciding what additional stocks, bonds, or other financial instruments to buy; when to buy; what and when to sell; and so forth. Making such decision are a form of management. The management of a portfolio is goal-driven. For an investment portfolio, the specific goal is to increase the value.

vii. Managing a portfolio involves inherent risks.

viii. Over time, other industry sectors have adapted and applied these ideas to other types of "investments," including the following:

c) Application portfolio management

This refers to the practice of managing an entire group or major sub set of software applications within a portfolio. Organizations regard these applications as investments because they require development (or acquisition) costs and incur continuing maintenance costs. Also, organizations must constantly make financial decisions about new and existing software applications, including whether to invest in modifying them, whether to buy additional applications, and when to "sell" -- that is, retire – an obsolete software application.

c) Product portfolio management

Businesses group major products that they develop and sell into (logical) portfolios, organized by major line-of-business or business segment. Such portfolios require ongoing management decisions about what new products to develop (to diversify investments and investment risk) and what existing products to transform or retire (i.e., spin off or divest). Project or initiative portfolio management, an initiative, in the simplest sense, is a body of work with:

- A specific (and limited) collection of needed results or work products.
- A group of people who are responsible for executing the initiative and use resources, such as funding.
- A defined beginning and end.

Managers can group a number of initiatives into a portfolio that supports a business segment, product, or product line. These efforts are goal-driven; that is, they support major goals and/or components of the enterprise's business strategy.

Managers must continually choose among competing initiatives (i.e., manage the organization's investments), selecting those that best support and enable diverse business goals (i.e., they diversify investment risk). They must also manage their investments by providing continuing oversight and decision-making about which initiatives to undertake, which to continue, and which to reject or discontinue.

1.2. CONCEPTUAL FRAMEWORK

PORTFOLIOMANAGEMENT

Portfolio is a collection of asset. The asset may be physical or financial like Shares Bonds, Debentures, and Preference Shares etc. The individual investor or a fund manager would not like to put all his money in the shares of one company, for that would amount to great risk. Main objective is to maximize portfolio return and at the same time minimizing the portfolio risk by diversification. Portfolio management is the management of various financial assets, which comprise the portfolio.

According to Securities and Exchange Board of India (Portfolio manager) Rules, 1993; ***"portfolio means the total holding of securities belonging to any person."***

Designing portfolios to suit investor requirement often involves making several projections regarding the future, based on the current information. When the actual stations at variance from the projections portfolio composition needs to be changed. One of the key inputs in portfolio building is the risk bearing ability of the investor. Portfolio management can be having institutional, for example, Unit Trust, Mutual Funds, Pension Provident and Insurance Funds, Investment Companies and non-Investment Companies. Institutional e.g. individual, Hindu undivided families, Noninvestment Company's etc. The large institutional investors avail services of professionals. A professional, who manages other people's or institution's investment portfolio. The portfolio manager performs the job of security analyst. In case of medium and large sized organization, job function of portfolio manager and security analyst are separate. Portfolios are built to suit the return expectations and the risk appetite of the investor.

Portfolio analysis considers the determination of future risk and return inholding various blends of individual securities. Portfolio expected return is a weighted average of the expected return of individual securities but portfolio variance, in short contrast, can be something less than a weighted average of security variances. As a result an investor can sometimes reduce portfolio risk by adding security withgreaterindividualriskthananyothersecurityintheportfolio.Thisisbecause risk depends greatly on the co-variance among return of individual securities. Since portfolios expected return is a weighted average of the expected return of its securities, the contribution of each security to the portfolio's expected returns Risk Depends on its expected returns and its proportion at share of the initial portfolio's market value.

Risk is a concept that denotes a potential negative impact to an asset or some characteristic of value that may arise from some present process or future event. In everyday usage, *risk* is often used synonymously with the probability of a known loss. Risk is uncertainty of the income/capital appreciation or loss of the both. The total risk of an individual security comprises two components; the market related risk called *systematic risk* also known as Non-diversifiable risk and the unique of that particular security called *unsystematic risk* or diversifiable risk.

A. Types of risk

Table 1.2: Types of Risk

Systematic risk (market)	**Unsystematic risk (company risk)**
Interest rate risk	Labor troubles
Market risk	Liquidity problems
Inflation risk	Raw materials risks
Demand	Financial risks
Government policy	Management problems
International factors	

Phases of Portfolio Management
Five phases can be identified in this process:

1. Security analysis
2. Portfolio analysis
3. Portfolio selection
4. Portfolio revision
5. Portfolio evaluation

Security analysis

An examination and evaluation of various factors affecting the value of security. Security Analysis stands for the proposition that a well-disciplined investor can determine a rough value for a company from all of its financial statements, make purchases when the market inevitably underprices some of them, earn a satisfactory return, and never be in real danger of permanent loss.

Portfolio analysis

Analysis phase of portfolio management consists of identifying the range of possible portfolios that can be constituted from a given set of securities and calculating the return and risk for further analysis.

Portfolio selection

The proper goal of portfolio construction is to generate a portfolio that provides the highest returns at a given level of risk. A portfolio having this characteristic is known as an efficient portfolio. The inputs from portfolio analysis can be used to identify the set of efficient portfolios. From this set of efficient portfolios, the optimal portfolio has to be selected for investment. Harry Markowitz portfolio theory provides both the conceptual framework and analytical tools for determining the optimal portfolio in a disciplined and objective way.

Portfolio revision

Having constructed the optimal portfolio, the investor has to constantly monitor the portfolio to ensure that it continues to be optimal. Portfolio revision is as important as portfolio analysis and selection.

Portfolio evaluation

It is the process, which is concerned with assessing the performance of the portfolio over a selected period of time in terms of returns and risk. This involves quantitative measurement of actual return realized and the risk born by the portfolio over the period of investment. It provides a feedback mechanism for improving the entire portfolio management process.

Models for Portfolio Management

Some of the financial models used in the process of Valuation, stock selection, and management of portfolios include:

a) Maximizing return, given an acceptable level of risk.
b) Modern portfolio theory—a model proposed by Harry Markowitz among others.
c) The single-index model of portfolio variance.
d) Capital asset pricing model.
e) Arbitrage pricing theory.
f) The Jensen Index.
g) The Treynor Index.
h) The Sharpe Diagonal (or Index) model.
i) Value at risk model

Strategies of portfolio management

There are mainly two types of portfolio strategies available, these are

a) Active Portfolio Strategy
b) Passive Portfolio Strategy

Active Portfolio Strategy

In an active portfolio strategy, a manager uses financial and economic indicators along with various other tools to forecast the market and achieve higher gains than a buy-and- hold (passive) portfolio. Although not always the case, some active portfolio strategies will include passive techniques such as dollar cost averaging.

Active management (also called *active investing*) refers to a portfolio management strategy where the manager makes specific investments with the goal of outperforming an investment benchmark index. Investors or mutual funds that do not aspire to create a return in excess of a benchmark index will often invest in an index fund that replica attests closely as possible the investment weighting and returns of that index; this is called passive management. Active management is the opposite of passive management, because in passive management the manager does *not* seek to outperform the benchmark index and re investing dividends.

Active P/F mgt. Concept

Ideally, the active manager exploits market in efficiencies by purchasing securities (stocks etc.)That are undervalued or by short selling securities that are overvalued. Either of these methods may be used alone or in combination. Depending on the goals of the specific investment portfolio, hedge fund or mutual fund, active management may also serve to create less volatility (or risk) than the benchmark index. The reduction of risk may be instead of, or in addition to, the goal of creating an investment return greater than the benchmark. Active portfolio managers may use a variety of factors and strategies to construct their portfolio(s). These include quantitative measures such as price/earnings ratio P/E ratios and PEG ratios, sector investments that attempt to anticipate long-term macroeconomic trends (such as a focus on energy or housing stocks), and purchasing stocksofcompaniesthataretemporarilyout-of-favourorsellingatadiscounttotheir intrinsic value. Some actively managed funds also pursue strategies such as merger arbitrage, short positions, option writing, and asset allocation.

Performance

The effectiveness of an actively-managed investment portfolio obviously depends onthe skill of the manager and research staff. In reality, the majority of actively managed collective investment schemes rarely outperform their index counterparts over an extended period of time, assuming that they are benchmarked correctly. For example, the Standard & Poor's Index Versus Active (SPIVA) quarterly scorecards demonstrate that only a minority of actively managed mutual funds have gains better than the Standard & Poor's (S&P) index benchmark. As the time period for comparison increases, the percentage of actively-managed funds whose gains exceed the S&P benchmark declines further. Due to mutual fund fees and/or expenses ,it is possible that an active or passively managed mutual fund could underperform compared to the benchmark index, even though the securities that comprise the mutual fund are outperforming the benchmark. However, since many investors are not satisfied with a benchmark return a demand for actively-managed continues to exist. In addition, many investors find active management an attractive investment strategy when investing in market segments that are less likely to be profitable when considered as whole. These kinds of sectors might include a sector such as small cap stocks.

Advantages of active management

The primary attraction of active management is that it allows selection of a variety of investments instead of investing in the market as a whole. Investors may have a variety of motivations for following such a strategy: They may be skeptical of the efficient- market hypothesis, or believe that some market segments are less efficient in creating profits than others. They may want to manage volatility by investing in less-risky, high- quality companies rather than in the market as a whole, even at the cost of slightly lower returns. Conversely, some investors may want to take on additional risk in exchange for the opportunity of obtaining higher-than-market returns. Investments that are not highly correlated to the market are useful as a portfolio diversifier and may reduce overall portfolio volatility. Some investors may wish to follow a strategy that avoids or underweights certain industries compared to the market as a whole, and may find an actively-managed fund more in line with their particular investment goals. (For instance, an employee of a high-technology growth company who receives company stock or stock options as a benefit might prefer not to have additional funds invested in the same industry.)

Several of the actively-managed mutual funds with strong long-term records invest in value stocks. Passively-managed funds that track broad market indices such as the S&P 500 have money invested in all the securities in that index i.e. both growth and value stocks.

Theuseofmanagedfundsincertainemergingmarketshasbeenrecommendedby *Burton Malkiel,* a proponent of the efficient market theory who normally considers index funds to be superior to active management in developed markets.

Disadvantages of active management

The most obvious disadvantage of active management is that the fund manager may make bad investment choices or follow an unsound theory in managing the portfolio. The fees associated with active management are also higher than those associated with passive management, even if frequent trading is not present .Those who is considering investing in actively-managed mutual funds devaluate the prospect carefully. Data from recent decades demonstrates that the majority of actively-managed large and mid- cap stock funds in United States fail to outperform their passive stock index counterparts.

Active fund management strategies that involve frequent trading generate higher transaction costs which diminish the fund's return .In addition; the short-term capital gains resulting from frequent trades often have an unfavorable income tax impact when such funds are held in a tax able account.

When the asset base of an actively-managed fund becomes too large, it begins to take on index-like characteristics because it must invest in an increasingly diverse set of investments instead of those limited to the fund manager's best ideas. Many mutual fund companies close their funds before they reach this point, but there is potential for a conflict of interest between mutual fund management and shareholders because closing the fund will result in a loss of income (management fees) for the mutual fund company.

Passive Portfolio Strategy

A strategy that involves minimal expectation input, and instead relies on diversification to match the performance of some market index. A passive strategy assumes that the marketplace will reflect all available information in the price paid for securities, and therefore, does not attempt to find mis priced securities.

The Portfolio Manager

This is a new role for organizations that embrace a portfolio management approach.

A portfolio manager is responsible for continuing oversight of the contents within a portfolio. If you have several portfolios within your portfolio structure, then you will likely need a portfolio manager for each one. The exact range of responsibilities (and authority) will vary from one organization to another, but the basics are as follows:

a. One portfolio manager oversees one portfolio.
b. The portfolio manager provides day-to-day oversight.
c. The portfolio manager periodically reviews the performance of, and conformance to expectations for, initiatives within the portfolio.
d. The portfolio manager ensures that data is collected and analyzed about each of the initiatives in the portfolio.
e. The portfolio manager ables periodic decision making about the future direction of individual initiatives.

Portfolio Reviews and Decision Making

As initiatives are executed, the organization should conduct periodic reviews of actual (versus planned) performance and conformance to original expectations.

Typically, organization managers specify the frequency and contents for these periodic reviews, and individual portfolio managers oversee their planning and execution. The reviews should be multi-dimensional, including both tactical elements (e.g., adherence to plan, budget, and resource allocation) and strategic elements (e.g., support for business strategy goals and delivery of expected organizational benefits). A significant aspect of oversight is setting multiple decision points for each initiative, so that managers can periodically evaluate data and decide whether to continue the work. These "continue/change/discontinue" decisions should be driven by an understanding (developed via the periodic reviews) of a given initiative's continuing value, expected benefits, and strategic contribution, Making these decisions at multiple points in the initiative's lifecycle helps to ensure that managers will continually examine and assess changing internal and external circumstances, needs and performance.

Governance

Implementing portfolio management practices in an organization is a transformation effort that typically involves developing new capabilities to address new work efforts, defining (and filling) new roles to identify portfolios (collections of work to be done),and delineating boundaries among work efforts and collections. Implementing portfolio management also requires creating a structure to provide planning, continuing direction, and oversight and control for all portfolios and the initiatives they encompass. That is where the notion of *governance* comes into play.

The view of governance is: An abstract, collective term that defines and contains a framework for organization, exercise of control and oversight, and decision-making authority, and within which actions and activities are legitimately and properly executed; together with the definition of the functions, the roles, and the responsibilities of those who exercise this oversight and decision-making.

a. Portfolio management governance involves multiple dimensions,
b. Defining and maintaining an enterprise business strategy.
c. Defining and maintaining a portfolio structure containing all of the organization's initiatives programs, projects, etc.
d. Reviewing and approving business cases that propose the creation of new initiatives.

e. Providing oversight, control, and decision-making for all ongoing initiatives.
f. Ownership of portfolios and their contents.

Each of these dimensions requires an owner -- either an individual or a collective -- to develop and approve plans, continuously adjust direction, and exercise control through periodic assessment and review of conformance to expectations.

A good governance structure decomposes both the type so work and the authority to plan and oversee work .It defines individual and collective roles, and links them to an authority scheme. Policies that are collectively developed and agreed up on provide a frame work for the exercise of governance. The complexities of governance structures extend well beyond the scope of this article. Many organizations turn to experts for help in this area because it is so critical to the success of any business transformation effort that encompasses portfolio management. For now, suffice it to say that it is worth investing time and effort to create a sound and flexible governance structure before you attempt to implement portfolio management practices.

Portfolio management essentials

Every practical discipline is based on a collection of fundamental concepts that people have identified and proven (and sometimes refined or discarded) through continuous application. These concepts are useful until they become obsolete, supplanted by newer and more effective ideas.

For example, in Roman times, engineers discovered that if the upstream supports of a bridgewereshapedtoofferlittleresistancetothecurrentofastreamorriver,theywould lastlonger.TheyappliedthisprincipleallacrosstheRomanEmpire.Then,inthemiddle Ages,engineersdiscoveredthatsuchsupportswouldlast*evenlonger*iftheir*downstream* side was also shaped to offer little resistance to the current. So that became the new standard for bridge construction. Portfolio management, like bridge-building, is a discipline, and a number of authors and practitioners have documented fundamental ideas about its exercise.

Objectives of Portfolio Management

The basic objective of Portfolio Management is to maximize yield and minimize risk. The other objectives are as follows:

Stability of Income: An investor considers stability of income from his investment. He also considers the stability of purchasing power of income.

Capital Growth: Capital appreciation has become an important investment principle.

Investors seek growth stocks which provide a very large capital appreciation by way of rights, bonus and appreciation in the market price of a share.

Liquidity: An investment is a liquid asset. It can be converted into cash with the help of a stock exchange. Investment should be liquid as well as marketable. The portfolio should contain a planned proportion of high-grade and readily saleable investment.

a) **Safety:** safety means protection for investment against loss under reasonably variations. In order to provide safety, a careful review of economic and industry trends is necessary. In other words, errors in portfolio are unavoidable and it requires extensive diversification.

b) **Tax Incentives:** Investors try to minimize their tax liabilities from the investments. The portfolio manager has to keep a list of such investment avenues along with the return risk profile, tax implications, yields and other returns.

There are three goals of portfolio management

1. Maximize the value of the portfolio
2. Seek balance in the portfolio
3. Keep portfolio projects strategically aligned.

Functions of Portfolio Management

The basic purpose of portfolio management is to maximize yield and minimize risk.Every investor is risk averse. In order to diversify the risk by investing into various securities following functions are required to be performed.

The functions undertaken by the portfolio management are as follows:

1. To frame the investment strategy and select an investment mix to achieve the desired investment objective;
2. To provide a balanced portfolio this not only can hedge against the inflation but can also optimize returns with the associated degree of risk;
3. To make timely buying and selling of securities;
4. To maximize the after-tax return by investing in various taxes saving investment instruments.

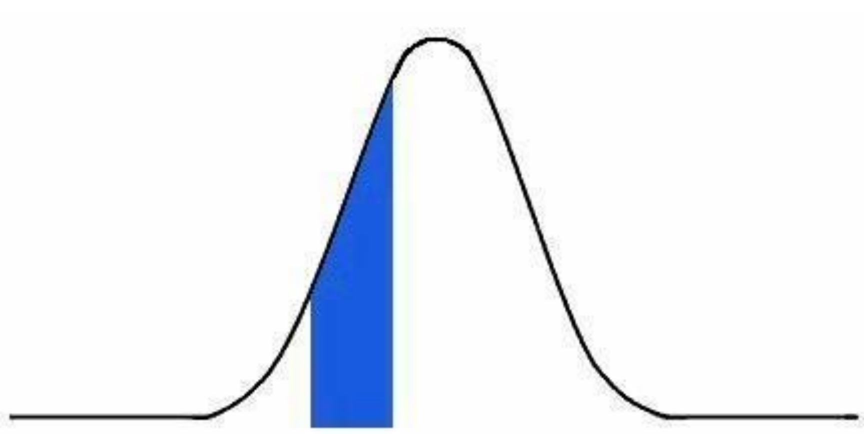
Steps in Portfolio Management

Figure 1.3: Steps in Portfolio Management

As guided by SEBI, the 6 steps for an ideal portfolio management should be

1. Establish the client's **investment objectives**.
2. Measure a client's **attitude to risk** by completion of a risk profile questionnaire.

Figure 1.4: Normal Curve Distribution of Investor's Risk



Risk Group	1	2	3	4	5	6	7
Score Range	Less than 25	25-34	35-44	45-54	55-64	65-74	75 or more
No in Group	1%	6%	24%	38%	24%	6%	1%

3. Determine the **asset class allocation** appropriate to a client's risk grade profile.
4. Undertake portfolio **fund selection** in association with a global asset management Company.

This will provide:

- Access to some of the world's best managers, not just mass market retail funds.
- A process with the rigorous objectivity to change drifting managers.
- A solution previously only available to large institutional investors.
- Continual daily monitoring and replacement of managers - by dedicated global team of more than 100analysts.
- An investment process designed to manage risk and deliver consistent returns.

5. **Tax wrapper allocation** (ISA's, Bonds, Units Trusts, OEICs) according to client's tax position and investment requirements.
6. Ongoing **Portfolio Management** (on a quarterly, six monthly or annually basis) to undertake regular fund performance reviews, reaffirm client investment requirements ,and implement any agreed funds witch recommendations.24x7on- line access to the Portfolio Management Platform.

Types of Portfolio Management:

The two types of portfolio management services are available to the investors:

i. Discretionary portfolio management services.
ii. Nondiscretionary portfolio management services.

The Discretionary portfolio management services (DPMS)

- In this type of services ,the client parts with his money in favor of manager, who in return, handles all the paper work, makes all the decisions and gives a good return on the investment and for this he charges a certain fees.
- In this discretionary PMS, to maximize the yield, almost all portfolio managers parks the funds in the money market securities such as overnight market, 182days treasury bills and 90 days commercial bills.
- Normally, return on such investment varies from 14 to 18 per cent, depending on the call money rates prevailing at the time of investment.

The Non-discretionary portfolio management services

- The manager function as a counselor, but the investor is free to accept or reject the manager's a device; the manager for a services charge al sounder takes the paper work.

- The manager concentrates on stock market instruments with a portfolio tailor made to the risk taking ability of the investor.

Advantages of portfolio management

Individuals will benefits immensely by taking portfolio management services for the following reason: -

a) Whatever may be the status of the capital market; over the long period capital markets have given an excellent return when compared to other forms of investment. There turn from bank deposits, unites. Is much less than from stock market.

b) The Indian stock markets are very complicated. Though there are thousands of companies that are listed only a few hundred, which have the necessary liquidity. It is impossible for any individual wishing to invest and sit down and analyses all these intricacies of the market unless he does nothing else.

Importance of portfolio management

- In the past one-decade, vital changes have taken place within the investment climate in India.

- Portfolio management is turning into a quickly growing space serving a broad array of investors- each individual and institutional-with investment portfolios travel in plus size from thousands to cores of rupees.

- It is turning into necessary because of:

- Emergence of institutional investment on behalf of people. Variety of financial institutions, mutual funds, and other agencies are undertaking the task of investment cash of little investors, on their behalf.

- Growth within the variety and therefore the size of invisible funds–a giant a part of unit savings is being directed towards financial assets.

- Increased market volatility- risk and come back parameters of monetary assets area unit endlessly dynamical due to frequent changes in government's industrial and monetary policies, economic uncertainty and instability.

- Greater use of computers for process mass of data.

- Professionalization of the field and increase use of analytical methods (e.g. quantitative techniques) within the investment decision-making, and

- Larger direct and indirect prices of errors or shortfalls in meeting portfolio objectives- accrued competition and bigger scrutiny by investors.

Portfolio management schemes (PMS) present scenario

- The restrictive atmosphere has entirely modified currently and with SEBI fixing strict norms for firms launching PMS, solely the intense player's square measure reaching to enter his business.
- The PMS members these days have full transparency: manager's square measure needed to keep up individual accounts showing all dealings in a very client's portfolio.
- They must conjointly advise him on all transactions.
- Secondly, all PMS Managers ought to send their shoppers a minimum of a quarterly report giving the standing of their portfolio and therefore the transactions that have taken place.
- The client-PMS manager contract is as per SEBI ground rules. It has many checks to shield investor's interest like egg laying the protective responsibility on the manager and preventing any alterations within the theme while the client's consent.
- Finally, managers ought to send half-yearly reports to SEBI on their portfolio management activities.
- Experienced handling cash} and money power apart, PMS conjointly takes care of variety of the headaches endemic with finance in the markets.The biggest one is custodial services.
- All PMS Managers act as custodians of shares and square measure accountable for the load of paper work associated with the share transfer, documentation work, communication work and even making certain that dividends square measure attributable to clients account.
- SEBI directives conjointly place the burden on the PMS promoters to require follow-up action just in case shares square measure lost or damaged.

- Difficulties like late transfer and communication felony square measure reduced just in case of brokers, becausetheynotonlyhavedirectaccesstoregistrarsbutalsohavebranchoffices to make sure quicker transfers.
- While the particular PMS charges vary from a high of seven of the number invested with to an occasional of around three.5%, follow-up services charges extra.
- As altogether schemes, there's a drawback to golf stroke money into portfolio management as well the most vital is that the undeniable fact that despite all the SEBI checks.PMS Managers aren't allowed to assured any fixed returns.
- This extremely discharges the managers for any responsibility if the theme will badly. Problem inherent in most schemes on provide are abused of investor’s funds to some extent. Funds collected from investors will aid the brokers concerned in their own games in the market.

Prospects of portfolio management

- At present, there are a very few agencies which render this type of services in an organized and professional way.
- However, their share in the total volume is very small.
- There is no constraint on the demand for this type of financial service as every entity would be saving and investing and interested in optimizing the rate of return.
- The size of capital market is increasing.
- There is an increase in the number of stock exchanges.
- New instruments are being introduced in the capital market.
- The equity cult is spreading in the interiors and rural areas.
- The percentage of investment of the household savings is bound to group.
- It is conservatively estimated that during the eighth plan resources to the tune of over Rs.50000crore will be mobilized through the stock market.
- India today has 20 million investors, as compared to 2 million in1980.

PORTFOLIO MANAGER

Portfolio managers are well trained professional experts. They give proper advice to the investors or invest in behalf of the investor to fulfill investor's expectations.

Qualities of Portfolio Manager

Sound general knowledge

- Portfolio management is an existing and challenging job.
- He has to work in an extremely uncertain and conflicting environment.
- In the stock market every new piece of information affects the value of the securities of different industries in a different way.
- He must be able to judge and predict the effects of the information he gets.
- He must have sharp memory, alertness, fast intuition and self-confidence to arrive at quick decisions.

Analytical Ability

- He must have his own theory to arrive at the value of the security.
- An analysis of the security's values, company, etc. is continues job of the portfolio manager.
- A good analyst makes a good financial consultant.
- The analyst can know the strengths, weakness, and opportunities of the economy, industry and the company.

Marketing skills

- He must be good salesman.
- He has to convince the clients about the particular security.
- He has to compete with the Stock brokers in the stock market.
- In this Marketing skills help him a lot.

Experience

- In the cyclical behavior of the stock market history is often repeated, therefore the experience of the different phases helps to make rational decisions.
- The experience of different types of securities, clients, markets trendsetter. Makes a perfect

professional manager.

Code of Conduct- Portfolio Managers

1 A portfolio manager shall, within the conduct of his business, observe high standardsofintegrityandfairnessinallhisdealingswithhisclientsandother portfolio managers.

2 The money received by a portfolio manager from a shopper for associate degree investment purpose should be deployed by the portfolio manager as soon as possible for that purpose and money due and payable to a client should be paid forth with.

3 A portfolio manager shall render at incomparable high standards of services exercise due diligence, guarantee correct care and exercise freelance professional judgment. The portfolio manager shall either avoid any conflict of in tersest in his investment or disinvestments decision ,or where any conflict of interest arises ;ensure fair treatment to all his customers .He shall disclose to the purchasers, doable sources of conflict of duties and interest, whereas providing unbiased services. A portfolio manager shall not place his interest higher than those of his clients.

4 A portfolio manager shall not create any statement or become aware about any act, follow or unfair competition, that is probably going to be harmful to the interests of different portfolio managers or it likely to place such different portfolio managers in an exceedingly inopportune position in respect to the portfolio manager himself, whereas competitor for or corporal punishment any assignment.

5 A portfolio manager shall not make any exaggerated statement, whether oral or written, to the shopper either concerning the qualification or the potential to render sure services or his achievements in relevance services rendered to other clients.

6 At the time of stepping into a contract, the portfolio manager shall get in writing from the shopper, his interest in numerous company bodies that allows him to get unpublished price-sensitive data of the body company.

7 A portfolio manager shall not disclose to any clients or press any confidential data concerning his purchasers that has return to his knowledge.

8 The portfolio manager shall wherever necessary and within the interest of the shopper take adequate steps for registration of the transfer of the client’s securities and for claiming and receiving dividend, interest payment and different rights accruing to the

client. He shall also take necessary action for conversion of securities and subscription of/or rights by the client's instruction.

9 The portfolio manager shall make sure that the investors are given true and adequate information without making any misguiding or exaggerated claims and are created tuned in to attendant risks before they take any investment call.

10 He ought to render the simplest doable recommendation to the shopper having relevance the client's wants and therefore the atmosphere, and his professional skills.

Factors Affecting the Investor

There may be many reasons why the portfolio of an investor may have to be changed. The portfolio manager always remains alert and sensitive to the changes in the requirement sof the investor. The following are some factor affecting the investor, which make it necessary to change the portfolio composition.

Change in Wealth

- According to the utility theory, the risk taking ability of the investor increases with increase in wealth.
- It says that people can afford to take more risk as they grow rich and benefit from its reward.
- But, in practice, while they can afford, they may not be willing.
- As people get rich, they become more concerned about losing the newly got riches than getting richer.
- So they may become conservative and vary risk-averse.
- The fund manager should observe the changes in the attitude of the investor towards risk and try to understand them in proper perspective.
- If the investor turns to be conservative after making huge gains, the portfolio manager should modify the portfolio accordingly.

Change in the Time Horizon

- As time passes, some events take place that may have an impact on the time horizon of the investor.
- Births, deaths, marriages, and divorces – all have their own impact on the investment horizon.
- There are, of course, many other important events in the person's life that may force a change in the investment horizon.

- The happening or the non-happening of the events will naturally have its effect.
- For example, a person may have planned for an early retirement, considering his delicate health. But, after turning 55 years of age, if his health improves, he may not take retirement.

Change in Liquidity Needs

- Investors very often ask the portfolio manager to keep enough scope in the portfolio to get some cash as and they want.
- This forces portfolio manager to increase the weight of liquid investments in the asset mix.
- Due to this, the amounts available for investment in the fixed income or growth securities that actually help in achieving the goal of the investor get reduced.
- That is, the money taken out today from the portfolio means that the amount and the return that would have been earned on it are no longer available for achievement of the investor's goals.

d) Changes in Taxes

- It is said that there are only two things certain in this world death and taxes.
- The only uncertainties regarding them relate to the date, time, place and mode.
- Portfolio manager have to constantly look out for changes in the tax structure and make suitable changes in the portfolio composition.
- The rate of tax under long-term capital gains is usually lower than threat applicable for income. If there is a change in the minimum holding period for long-term capital gains, it may lead to revision. The specifics of the planning depend on the nature of the investments.

Others

- There can be many of other reasons for which clients may ask for a change in the asset mix in the portfolio.
- For example, there may be change in the return available on the investments that have to be compulsorily made with the government say, in the form of provident fund.
- This may call for a change in the return required from the other investments.

SEBI rules & regulations for portfolio managers

Rules for portfolio managers

No person to act as portfolio manager without certificate. There are clearly laid down conditions for grant or renewal of certificate to portfolio manager. This certification will also have a Period of validity of the certificate

SEBI guidelines for advertisement by portfolio managers

For the purpose of these guidelines, the expression advertisement means notices, brochures, pamphlets, circulars, show cards, catalogues, holdings, placards, and posters, insertions in newspapers, pictures, films, radio/television programs or through any electronic media. For this also SEBI have elaborate guidelines and norms to be abided by.

LITERATURE REVIEW

1.JamadarLal(1992)presents a profile of Indian investors and evaluates their investment decisions. He made an effort to study their familiarity with, and comprehension of financial information, and the extent to which this is put to use. The information that the companies provide generally fails to meet the needs of a variety of individual investors and there is a general impression that the company's Annual Report and other statements are not well received by them.

2. Jack Clark Francis (1986) revealed the importance of the rate of return in investments and reviewed the possibility of default and bankruptcy risk. He opined that in an uncertain world, investors cannot predict exactly what rate of return an investment will yield. However he suggested that the investors can formulate a probability distribution of the possible rates of return.

3. New academic portfolio theory is an extension of traditional portfolio advice first posited by Markowitz (***Journal of Finance,* 1952**). The traditional advice suggests a “two-fund theorem” that allocates between risk-free bonds and a broad-based passively managed stock fund. The most efficient portfolios, those on the mean– variance frontier, can be formed by combining those two asset classes. Tailoring portfolios by adding style-based asset classes is inefficient because each of these classes lies on or inside the frontier. Therefore, every investor need stood only the two basic asset classes, with risk aversion determining the proportions.

4. John H. Cochrane

***Economic Perspectives, Federal* Reserve Bank of Chicago, vol. 23, no. 3 (Third Quarter 1999):59–78**

Investors today face numerous and often bewildering investment decisions. Investors used to have fairly straightforward choices to make, selecting among managed mutual funds, index funds, and expensive trading in a personal account. Today, a widevarietyof styles exist among funds, active managers offer customized and complex strategies, and inexpensive online trading is widely available. The author reviews these issues and addresses how they affect asset allocation decisions, particularly in multifactor models. He also examines return predictability and describes how he stock market act as salvage insurance market by facilitating the transfer of risk among investors.

5. Lobos Pastor

***Journal of Finance,* vol. 55, no. 1 (February 2000):179–223**

The author develops a portfolio-selection method using a Bayesian framework that incorporates a prior degree of belief in an asset-pricing model. In the empirical analysis, the author evaluates sample evidence on home bias, value, and size effect from an asset allocation perspective. The results provide a different perspective from that normally found in the literature on the benefits of international diversification.

6. Gustavo Grullon and RoniMichaely

***Journal of Finance*, vol. 57, no. 4 (August 2002):1649–84**

Cash dividends and stock repurchases are two major forms of payout to stockholders. They influence stock prices and returns and thus decisions for investing and trading in stocks. The authors analyze the behavior of U.S. corporations that paid dividends and repurchased shares in the 1972–2000 period. They address the relative merits of dividends and repurchases from the corporation’s point of view, the substitutability between the two forms of payout, and the differences in their tax treatment from the investor’s perspective. Their findings are of interest to corporate financial officers, equity analysts, and portfolio managers.

CHAPTER 2

INDUSTRY AND COMPANY PROFILES

2.1 INDUSTRY PROFILE

2.1.1 ABOUT THE STOCK EXCHANGES

The only stock exchanges operating in the 19 century were those of Bombay set up in 1875 and Ahmadabad set up in 1894. These were organized as a voluntary non-profit-making association of brokers to regulate and protect their interests. Before the control on securities trading become a central subject and the Bombay securities contracts (control) Act of 1925 used to regulate trading in securities. Under this Act, the Bombay stock exchange was recognized in 1927 and Ahmadabad in 1937

During the war boom, several stock exchanges were organized even in Bombay, Ahmadabad, and other centers, but they were not recognized. Soon after it became a central subject, central legislation was proposed and a committee's and public discussion, the securities contracts (regulation) Act became law in 1956.

2.1.2 DEFINITION OF STOCK EXCHANGE

"Stock exchange means anybody or individuals whether incorporated or not, constituted to assist, regulate or controlling the business of buying, selling, or dealing in securities."

It is an association of member brokers for self-regulation and protecting the interests of its members.

It can operate only if it is recognized by the Government under the securities contracts (regulation) Act, 1956. The recognition is granted under section 3 of the act by the central government, Ministry of Finance.

2.1.3 SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

Securities and Exchange Board of India (SEBI) set up as an autonomous regulatory authority by the government of India in 1988 "to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto". It is empowered by two acts namely the SEBI Act, 1992, and the securities contract (regulation) Act, 1956 to perform the function of protecting investor's rights and regulating the capital markets.

Securities and Exchange Board of India (SEBI) regulatory reach has been extended to more areas and there is a considerable change in the capital market. SEBI's annual report for 1997-98 has stated that throughout its six-year existence as a statutory body, it has sought to balance the twin objectives of investor protection and market development. It has formulated new rules and crafted regulations to foster development. Monitoring and surveillance were put in place in the Stock Exchanges in 1996-97 and strengthened in 1997-98.

SEBI was set up as an autonomous regulatory authority by the government of India in 1988 "to protect the interests of investors in securities and to promote the development of, and to regulate the securities market and for matters connected therewith or incidental thereto". It is empowered by two acts namely the SEBI Act, 1992, and the securities contract (regulation) Act, 1956 to perform the function of protecting investor's rights and regulating the capital markets.

2.1.4 OBJECTIVES OF SEBI

The promulgation of the SEBI ordinance in the parliament gave statutory status to SEBI in 1992. According to the preamble of the SEBI, the three main objectives are: -

- To protect the interests of the investors in securities.
- To promote the development of the securities market.
- To regulate the securities market.

2.1.5 FUNCTIONS OF SEBI

- Regulating the business in Stock Exchange and any other securities market.
- Registering and regulating the working of Stock Brokers, Sub-Brokers, Share Transfer Agents, Bankers to the issue, Trustees to trust deeds, registrars to an issue, Merchant Bankers, Underwriters, Portfolio Managers, Investment Advisers and such other intermediaries who may be associated with securities market in any manner.
- Registering and regulating the working of collective investment schemes including Mutual Funds.
- Promoting and regulating self-regulatory organizations.
- Prohibiting fraudulent and unfair trade practices in the securities market.
- Promoting investor's education and training of intermediaries in the securities market.
- Prohibiting Insiders Trading in securities.
- Regulating substantial acquisition of shares and take-over of companies.

- Calling for information, understanding inspection, conducting inquiries and audits of the Stock Exchanges, Intermediaries, and Self-Regulatory organizations in the securities market.

Bombay Stock Exchange Limited is the oldest stock exchange in Asia with a rich heritage. Popularly known as "BSE", it was established as "The Native Share & Stock Brokers.

Association" in 1875. BSE has played a pioneering role in the Indian Securities Market - one of the oldest in the world. Much before actual legislation were enacted, BSE had formulated comprehensive set of Rules and Regulations for the Indian Capital Markets. It also laid down best practices adopted by the Indian Capital Markets after India gained its Independence.
BSE is the first stock exchange in the country to obtain permanent recognition in 1956 from the Government of India under the Securities Contracts (Regulation) Act, 1956. The base year of SENSEX is 1978-79. From September 2003, the SENSEX is calculated on a free-float market capitalization methodology. The "free-float Market Capitalization-Weighted" methodology is a widely followed index construction methodology on which majority of global equity benchmarks are based.

The Exchange has a nation-wide reach with a presence in 417 cities and towns of India. The systems and processes of the Exchange are designed to safeguard market integrity and enhance transparency in operations. During the year 2004-2005, the trading volumes on the Exchange showed robust growth.

The Exchange is professionally managed under the overall direction of the Board of Directors. The Board comprises eminent professionals, representatives of Trading Members and the Managing Director of the Exchange. The Board is inclusive and is designed to benefit from the participation of market intermediaries.

2.1.6 NATIONAL STOCK EXCHANGE OF INDIA LIMITED

The National Stock Exchange of India Limited has genesis in the report of the High Powered Study Group on Establishment of New Stock Exchanges, which recommended promotion of a National Stock Exchange by financial institutions (FIs) to provide access to investors from all across the country on an equal footing. Based on the recommendations, NSE was promoted by leading Financial Institutions at the behest of the Government of India and was incorporated in November 1992 as a tax-paying company unlike other stock exchanges in the country. On its recognition as a stock exchange under the Securities Contracts

(Regulation) Act, 1956 in April 1993, NSE commenced operations in the Wholesale Debt Market (WDM) segment in June 1994. The Capital Market (Equities) segment commenced operations in November 1994 and operations in Derivatives segment commenced in June 2000.

The national stock exchange of India ltd is the largest stock exchange of the country. NSE is setting the agenda for change in the securities markets in India. For last 5 years it has played a major role in bringing investors from 347 cities and towns online, ensuring complete transparency, introducing financial guarantee to settlements, ensuring scientifically designed and professionally managed indices and by nurturing the dematerialization effort across the country. NSE is a complete capital market prime mover. It's wholly owned subsidiaries, National securities clearing corporation ltd (NSCCL) provides cleaning and settlement of securities, India index services and products ltd (IISL) provides indices and index services with a consulting and licensing agreement with Standard & Poor's (S&P), and IT ltd forms the technology strength that NSE works on.

2.1.7 OBJECITVES OF NATIONAL STOCK EXCHANGE

- To establish a nationwide trading facility for equities, debt instruments and hybrids.
- To ensure equal access to investors all over the country through appropriate communication network.
- To provide a fair, efficient and transparent securities market to investors using an electronic communication network.
- To enable shorter settlement cycle and book entry settlement system.
- To meet current international standards of securities market.

PROMOTERS OF NATIONAL STOCK EXCHANGE

IDBI, ICICI, IFCI, LIC, GIC, SBI, Bank of Baroda, Canara Bank, Corporation Bank, Indian Bank, Oriental Bank of Commerce, Union Bank of India, Punjab National Bank, Infrastructure Leasing and Financial Services, Stock
Holding Corporation of India and SBI Capital Market are the promoters of NSE.

2.1.8 NSE-NIFTY

The National Stock Exchange on April 22, 1996 launched a new Equity Index. The NSE-50. The new Index which replaces the existing NSE-100 Index is expected to serve as an appropriate Index for the new segment of futures and options.

"Nifty" means National Index for Fifty Stock.

The NSE-50 comprises 50 companies that represent 20 broad Industry groups with an aggregate market capitalization of around Rs.1,70,000crores. All companies included in the Index have a market capitalization in excess of Rs.500crores each and should have traded for 85% of trading days at an impact cost of less than 1.5%.

The base period for the index is the close of prices on Nov 3, 1995, which makes one year of completion of operation of NSE's capital market segment. The base value of the Index has been set at 1000.

2.1.9 NSE-MIDCAP INDEX

The National Stock Exchange Midcap Index or the Junior Nifty comprises 50 stocks that represents 21 board Industry groups and will provide proper representation of the madcap segment of the Indian Capital Market. All stocks in the Index should to establish a nationwide trading facility for equities, debt instruments and hybrids.

- To ensure equal access to investors all over the country through appropriate communication network.
- To provide a fair, efficient and transparent securities market to investors using an electronic communication network.
- To enable shorter settlement cycle and book entry settlement system.
- To meet current international standards of securities market.

2.1.10 STOCK EXCHANGES IN INDIA

S.No	NAME OF THE STOCK EXCHANGE	YEAR
1.	Bombay Stock Exchange	1875
2.	Hyderabad Stock Exchange.	1943
3.	Ahmadabad Share and Stock Brokers Association.	1957
4.	Calcutta Stock Exchange Association Limited.	1957
5.	Delhi Stock Exchange Association Limited.	1957
6.	Madras Stock Exchange Association Limited.	1957
7.	Indoor Stock Brokers Association.	1958
8.	Bangalore Stock Exchange.	1963
9.	Cochin Stock Exchange.	1978
10.	Pune Stock Exchange Limited.	1982

11.	U.P Stock Exchange Association Limited.	1982
12.	Ludhiana Stock Exchange Association Limited.	1983
13.	Jaipur Stock Exchange Limited.	1984
14.	Gauhathi Stock Exchange Limited.	1984
15.	Mangalore Stock Exchange Limited.	1985
16.	Maghad Stock Exchange Limited, Patna.	1986
17.	Bhubaneswar Stock Exchange Association Limited.	1989
18.	Over the Counter Exchange of India, Bombay.	1989
19.	Saurasthra Kutch Stock Exchange Limited.	1990
20.	Vadodara Stock Exchange Limited.	1991
21.	Coimbatore Stock Exchange Limited.	1991
22.	Meerut Stock Exchange Limited.	1991
23.	National Stock Exchange Limited.	1992
24.	Integrated Stock Exchange.	1999

2.2 COMPANY PROFILE

The Kotak Mahindra cluster is one in all India's leading monetary establishments, providing complete monetary solutions that comprehend each sphere of life. Know the board of administrators at the Kotak Mahindra cluster and meet a number of the foremost knowledgeable and recognized names within the monetary world. Kotak Mahindra supports variety of humanitarian and charitable comes in Republic of India as a part of our social initiatives as well.

2.2.1 The Kotak Mahindra Group:

Kotak Mahindra is one amongst India's leading money establishments giving complete money solutions that comprehend every sphere of life. From industrial banking, to Stock broking, to mutual funds, to life assurance, to investment banking the cluster caters to the money desires of people and company. The cluster has web value of around Rs.3100crore, employs, Also around 600 individuals in its varied businesses and contains a distribution network of branches, franchisees, representative offices in NY, London, city and Mauritius. The cluster services around a pair of.2million client accounts.

2.2.2. Vision:

Our customers can relish the advantages of handling a worldwide Indian brand that best understands their desires and delivers custom pragmatic solutions across multiple platforms. We are going to be a world cluster. Our technology and best practices are benchmarked on international lines whereas our understanding of shoppers is unambiguously Indian. We will be over a repository of our customer's savings. We, the group, are one window to each money service in a very customer's universe.

The most well-liked leader in money services: A culture of management associated spirit of enterprise attracts bright minds with an entrepreneurial streak to affix North American nation and stick with North American nation. Operating with a home-grown, professionally-managed company that has partnerships with international leaders, offers our individuals a perspective that's universal furthermore as distinctive.

The most trustworthy money services company: we are going to produce associate attribute of trust across all our constituents. Adhering to high standards of compliance and company governance are associate integral a part of building trust.

Value Creation: worth creation instead of size alone is our business driver.

Kotak Securities Ltd. 100% subsidiary of Kotak Mahindra Bank is one in every of the oldest and largest broking companies within the trade.

Our offerings embody stock broking through the branch and web, Investments in commercialism, Mutual Funds and portfolio management service.

2.2.3 Kotak Accolades Include:

- UTI MF –CNBC TV 18 Financial Advisor Awards – Best performing Equity Broker (National) for the year 2009
- Finance Asia Award (2009)- Bet Brokerage Firm In India
- Best Brokerage firm in India by Asia money in 2008,2007&2006
- Best Performing firm in India by Asia money in 2008,2007&2006
- Best performing Equity Broker in India- CNBC Financial Advisor Awards 2008
- Avaya Customers Responsiveness Awards (2007 & 2006) in Financial Services Sector
- The Leading Equity House In India in Thomson Extel Surveys Awards For the year 2007
- Euro money Award (2007 & 2006) – Best Provider of portfolio Management: Equities
- Euro money Award (2005) – Best Equities House In India
- We have been the first in providing many products and services which have now become industry standards. Some of them are:
- Facility of Margin Finance to the customer
- Investing in IPO's and Mutual Funds on the phone
- SMS alerts before execution of depository transactions
- Mobile application ta track portfolios

Kotak has fully-fledged analysis division concerned in Macro Economic Studies, two-dimensional figure analysis and Company Specific Equity analysis combined with a powerful and well networked sales division that helps deliver current and up so far market data and news. Kotat are also in to installation participant with National Securities installation restricted (NSDL) and Central installation Services restricted (CDSL), providing twin profit services whereby the investors will avail our brokerage services for death penalty the transactions and therefore the installation services for subsiding them. we have a tendency to method quite 400000 trades every day that is way higher even spans over 331 cities with 843 retailers.

Kotak Securities restricted has Rs.2599 large integer of assets below Management (AUM) as of thirtieth Gregorian calendar month, 2009. The portfolio Management from Kotak Securities comes as a solution to people who would love to grow exponentially on the crest of the securities market, with the backing of associate knowledgeable.

2.2.4. Kotak Securities Ltd.;

Kotak Securities Ltd. Is one of the oldest and leading stock broking houses in India with a market Kotak Securities Ltd. has also been the largest in IPO Distribution.

The accolades that Kotak Securities has been graced with include:

- Finance Asia Award (2009) – Best Brokerage Firm in India
- Best performing Equity Broker in India –CNBC TV 18' – Optimix Financial Advisory Awards,2008
- 'Best Brokerage Firm in India' By Asia money 2007
- 'the Leading Equity House in India' in Thomson Extel Surveys Awards for the year 2007
- Euro money Award (2006 & 2007) = Best Provide of Portfolio Management : Equities
- Avaya Customer responsiveness Awards (2006) in Financial Institution Sector
- Asia Money Award (2006) – Best Broker In India

The company contains a full – fledged analysis division concerned in Macro Economic Studies, Sect oral analysis and company Specific Equity analysis combined with a powerful and well networked sales department that helps deliver current and up thus far market data and news.

Kotak securities Ltd is additionally a facility participant with National securities facility restricted (NSDL) and Central facility Services restricted (cdsl), providing twin profit services whereby the investors will use the brokerage services company for capital punishment the transactions and therefore the facility services for subsiding them.

Kotak Securities has eight43 shops pairing over 8.5 lakhs client accounts and coverage of 331 cities. Kotaksecurities.com, on-line|the web|the net} division of Kotak Securities restricted Offers web Broking services and additionally online mercantilism and investment company Investments.

2.2.5 History of the bank

The Kotak Mahindra Group was born in 1985 as Kotak Capital Management Finance Limited. This company was promoted by UdayKotak, Sidney A.A.Pinto and kotak& Company. Industrialists Harish Mahindra and Anand Mahindra took a stake in 1986, and that's when the company changed its name to kotak Mahindra Finance Limited.

Since then it's been a steady and confident journey to growth and success 1986 Kotak Mahindra Finance Limited starts the Activity of Bill Discounting. 1990 Kotak Mahindra Finance Limited enters the Lease and Hire Purchase market. The auto Finance division is started. 1991 The Investment Banking Division is started,. It takes over FICOM, one of India's largest financial retail marketing networks. 1992 It enters the funds Syndication sector. 1995 Brokerage and Distribution businesses incorporated into a separate company – Kotak securities. Investment banking division incorporated into a separate company – kotak Mahindra Capital Company. 1996 The Auto Finance Business is hived off into a separate company – Kotak Mahindra Prime limited (formerly known as Kotak Mahindra Primus limited). Kotak Mahindra takes as significant stake in ford vehicles.1998 It was entered in to the mutual fund market with the launch of Kotak Mahindra Asset Management Company

2000 Kotak Mahindra ties up with Old Mutual plc. For the Life Insurance business.Kotak Securities launches its on-line broking site (now www.kotaksecurities.com).Commencement of private equity activity through setting up of Kotak Mahindra Venture Capital Fund.

2001 Matrix sold to Friday Corporation Launches Services. 2003 Kotak Mahindra Finance Ltd. Converts to a commercial bank the first Indian company to do so. 2004 Launches India Growth Fund, a private equity fund. 2005 Kotak Group realigns joint venture in Ford Credit; Buys Kotak Mahindra Prime (formerly known as kotak Mahindra Primus Limited) and sells Ford credit Kotak Mahindra. It was Launched a Real estate fund. 2006 Bought the 25% stake held by Goldman Sachs in kotak Mahindra capital Company and Kotak Securities.

2.2.5. Kotak group Products & Services:

- Bank
- Life Insurance
- Mutual Fund
- Car Finance
- Securities
- Institutional Equities
- Investment Banking
- Kotak Mahindra International
- Kotak Private equity

- Kotak Realty Fund

Kotak Securities Ltd. Is India's leading Stock broking house with a market share of around eight.5% as on thirty first March.Kotak Securities Ltd. Has Been the most important in commerce distribution.. The accolades that Kotak Securities has been graced with include: Prime Ranking Award (2003– Largest Distributor of IPO's, Finance Asia Award (2004) – India's best Equity House. Finance Asia Award (2005) –Best Broker in Republic of India. monetary unit cash Award (2005)-Best Equities House in Republic of India. monetary unit cash award (2006) – Best supplier of portfolio Management: Equities. the businesses includes a full-fledged analysis division concerned in Macro Economic studies, Sectoral analysis and Company Specific Equity analysis combined with a robust and well networked sales department that helps deliver current and up thus far market info and news. Kotak Mahindra Ltd is additionally a repository participant with National Securities repository restricted (NSDL) and Central repository Services restricted (CDSL), providing twin profit the transactions and therefore the repository services for subsidence them. Kotak Securities has 195 branches coupling over a pair of, 20,000 customers and coverage of 231 cities. Kotaksecyrities.com on-line|the web|the net} division of kotak securities restricted provide net broking services and additionally online commerce and investment trust investment.

Corporate profile:

Kotak Mahindra is one among India's leading money establishments, providing complete money solutions that include each sphere of life. From business banking, to stock broking, to mutual funds, to insurance, to investment banking, the cluster caters to the money desires of people and company.

As on June thirty, 2006, the cluster features a web price of over rRs.2,840crore, the {aum|Aum Shinrikyo|Aum|Supreme Truth|terrorist organization|terrorist cluster|foreign terrorist organization|FTO} across the group is around 182.3 billion and employs over seven,800 staff in its varied businesses. With a presence in 264 cities in Bharat and offices in big apple, London, metropolis and Mauritius, it services a client base of over one.6 million.

The cluster makes a speciality of providing premium money services, business to each section of the trade. the varied cluster firms include:

- Kotak Mahindra capital Company Limited

- Kotak Mahindra Securities Limited
- Kotak Mahindra Inc.
- Kotak Mahindra (international) Limited
- Global Investments Opportunities Fund Limited
- Kotak Mahindra (UK) Limited
- Kotak Securities Limited
- Kotak Mahindra Old Mutual Life Insurance Limited
- Kotak Mahindra Asset Management Company Limited
- Kotak Mahindra Investment Limited
- Kotak Mahindra Private –Equity Trustee Limited.

2.2.6. About Kotak Securities Limited

Kotak Securities restricted, a subsidiary of Kotak Mahindra Bank, is that the stock broking and distribution arm of the Kotak Mahindra's cluster. the corporate was originated in 1994. Kotak Securities may be a company member of each The Bombay exchange and therefore the national exchange of India restricted. Its operations embody stock broking and distribution of varied monetary merchandise – as well as personal and secondary placement of debt and equity and mutual funds. Currently, Kotak Securities is one among the biggest broking homes in India with wide geographical reach. the corporate has four main areas of business: (1) Institutional Equities, (2) Retail, (3) portfolio Management and (4) Depositary Services.

• Institutional Business:

This division primarily covers secondary market broking. It caters to the wants of foreign and Indian institutional investors in Indian equities (both native shares and GDRs).

The division conjointly incorporates a comprehensive analysis cell with sectoral analysts UN agency cowl all the main areas of the Indian economy.

• Consumer cash Management:

This division provides skilled portfolio management services to high net-worth people and corporates. Its experience in analysis and stock broking offers the corporate the correct perspective from that to produce its shoppers with investment consultative services.

• Retail distribution of economic producers:

2.2.7 Depositary Services:

Kotak Securities is a depository participant with the National Securities Depositary Limited and Central Depository Services (India) limited for trading and settlements of dematerialized shares. Kotak Securities width, volume and equity of offerings regularly earn it accolades from industry monitors. In recent times, these have included:

- Euro Money Award (2005): Best Equities House in India
- Finance Asia Award (2005): Best Broker in India
- Finance Asia Award(2004): India's Best Equity House
- Euro Money (2004): Best Equity House in India
- Prime Ranking Award (2003-2004):Largest Distributor of IPO's
- Asia money (2004):Best Equity House in India

2.2.8. Kotak institutional Equities:

Kotak Institutional equities, among the highest institutional brokers in Asian country .it in the main covers secondary market broking and therefore the promoting of equity offerings, as well as IPO's, to domestic and foreign institutional investors. Its full- fledged analysis division contains eighteen analysts engaged in macro – economic studies, business and company – specific analysis.

Kotak Institutional Equities has full monetary services capability, which incorporates derivatives, facilitating market access through affiliates and therefore the distinctive providing of company access to investors. The division services over 250 shoppers as well as FIIs, pension and mutual funds. The division has sales desks in city, London and big apple, with the Asian country table additionally mating shoppers in metropolis, Singapore, Japan and Australia.

2.2.9 Trading System:

NSE introduced for the primary time in Asian country, absolutely automatic screen primarily based mercantilism. It uses a contemporary, absolutely processed mercantilism system designed to supply investors across the length and breadth of the country a secure and straightforward thanks to invest.

The NSE mercantilism system referred to as ‘National Exchange for automatic mercantilism ‘(NEAT) may be a absolutely automatic screen primarily based mercantilism system, that adopts the principle of Associate in Nursing order driven market.

The Futures and choices mercantilism System provides a completely automatic mercantilism setting for screen-based, floor-less mercantilism on a nationwide basis and an internet observance and police work mechanism. The systems support Associate in nursing order driven market and provides complete transparency of dealings.

CHAPTER 3

RESEARCH METHODOLOGY

Statement of problem

As portfolio management is an important function of anybody's investment decision, it definitely has multilevel implications if not done properly as it deals with money time and one's hard earned money. Moreover Indian capital market being a highly opportunistic one, testing a decent portfolio out of the prominent company being traded would always benefit the investor community to a great extent.

Objectives of the study

Primary Objectives

- To construct an optimum portfolio identifies stocks of companies as suggested by Kotak Securities.

Secondary Objectives

- To calculate & compare the return of various companies.
- To calculate & compare the risk of various companies.
- To apply Sharpe's single index model of portfolio construction with real time data
- To calculate the portfolio return & risk

Scope of the study

This study covers the Sharpe's single index model of portfolio construction. The study covers the calculation of risks & returns, correlations between the various securities etc. Also, the study inclues the calculation of individual variance of securities and ends at the calculation of weights of individual securities concerned within the portfolio constructed. These percentages facilitate in allocating the funds accessible for investment supported risky portfolios.

Research Methodology

Research type: -

This is a "descriptive" type of research as it intends to explain the risk & return relationship and also with the historical data inputs of stock market prices attempts to understand the relationships and also tries to bring a new compilation of portfolio for a utility.

Data Collection –

As this study is concerned with market information of price movements of identified companies and other allies information the different sources are classified as below'

Primary sources-

These include the daily closing price of identified company and Nifty for last year from NSE & BSE websites. Apart from that the opinion from Kotak officials and selection of company etc. was done on first hand basis with interviews and discussions.

Secondary sources-

This include the information search to determine interest rate, i.e., risk free rate of return, and other theoretical frameworks from text books, internet / web sources and BSE & NSE portals.

Sampling Design –

As the main aspects of the study which is the selection / identification of companies to be included in the portfolio construction calculations / analysis part was obtained based on the suggestion of officials who were guiding from company side in my work. Therefore the sampling design for the study is as follows;

Sample size –

Five companies were suggested from Kotak suggested which are, HDFC Bank, LUPIN Ltd., HUL, TCS & Tata motors.

Tools / methods used for analysis –

- Sharpe's single index model of portfolio construction
- Beta
- Standards deviation
- Variance
- Correlation coefficient
- Covariance

Limitations of the study

- The sample size is restricted by five companies stocks from five different sectors which were more of a random selection suggested to use in the report.
- The data was collected from the time horizon of 1 fiscal year ranging from Gregorian calendar month 2019 to March 2020.
- The construction of portfolio was done just from an academic knowledge and without any relevant practical considerations.
- Risk free rate of return was assumed by considering the basis SB rate prevailed in the country as against possible more suitable alternatives which were not explored.

CHAPTER 4:

DATA ANALYSIS AND INTERPRETATION

Return & Risk of Benchmark index: NSE CNX NIFTY

Table 4.1: Return, R (Avg) Calculation of NSE CNX Nifty

FY 2019-20	P0	P1	R
Apr-19	6721.05	6696.40	-0.37
May-19	6694.50	7229.95	8.00
Jun-19	7362.50	7611.35	3.38
Jul-19	7634.70	7721.30	1.13
Aug-19	7602.60	7954.35	4.63
Sep-19	8027.70	7964.80	-0.78
Oct-19	7945.55	8322.20	4.74
Nov-19	8324.15	8588.25	3.17
Dec-19	8555.90	8282.70	-3.19
Jan-20	8284.00	8808.90	6.34
Feb-20	8797.40	8901.85	1.19
Mar-20	8956.75	8491.00	-5.20
Total			23.03
Average Return, R			1.92

Interpretation

The average monthly return at NSE CNX Nifty for the period of analysis was 1.92%. This is assumed as the market return for further calculations.

Risk, S.D Calculation

Table 4.2: Risk, S.D Calculation of NSE CNX Nifty

FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	-0.37	1.92	-2.29	5.23
May-19	8.00	1.92	6.08	36.95
Jun-19	3.38	1.92	1.46	2.13
Jul-19	1.13	1.92	-0.79	0.62
Aug-19	4.63	1.92	2.71	7.33
Sep-19	-0.78	1.92	-2.70	7.31
Oct-19	4.74	1.92	2.82	7.95
Nov-19	3.17	1.92	1.25	1.57
Dec-19	-3.19	1.92	-5.11	26.14
Jan-20	6.34	1.92	4.42	19.50
Feb-20	1.19	1.92	-0.73	0.54
Mar-20	-5.20	1.92	-7.12	50.69
Total				165.96
Variance				15.09
Standard Deviation				3.88

Risk, S.D, σ = Square root (∑(R - Avg R) ^2) / N-1 FY15 (MoM) Risk for NSE CNX Nifty = 3.88

Interpretation

The NSE CNX Nifty had given a good return of 1.92% per month with an adjusted risk rate of 3.88 during the financial year of study.

Return & Risk of Individual Stocks

HDFC Bank Limited

HDFC Bank restricted is an Indian banking and monetary services company headquartered in Mumbai, Maharashtra.Incorporatedin1994, it is the fifth largest bank in Bharat as measured by assets. It's the most important non-public sector bank in Bharat by capitalization as of Gregorian calendar month 2014. The bank was promoted by the development Finance Corporation, a premier housing no depository financial institution (set up in 1977) of Bharat. In keeping with the complete Trust Report 2014, HDFC was hierarchical thirty second among India's most trusty brands. HDFC was hierarchical forty fifth on the list of high fifty Banks within the world in terms of their market capitalization.

Return, R (Avg) Calculation

Table 4.3: Return, R (Avg) Calculation of HDFC Bank Limited

FY 2019-20	P0	P1	Dividend	R
Apr-19	738.10	721.30		-2.28
May-19	717.10	792.75		10.55
Jun-19	819.40	821.55	6.85	1.10
Jul-19	823.30	834.00		1.30
Aug-19	815.45	843.55		3.45
Sep-19	841.20	872.65		3.74
Oct-19	868.00	911.85		5.05
Nov-19	910.70	957.15		5.10
Dec-19	950.00	951.60		0.17
Jan-20	952.05	1077.35		13.16
Feb-20	1081.60	1071.20		-0.96
Mar-20	1082.55	1022.70		-5.53
Total				34.85
Average Return, R				2.90

Return, R = Dividend + (P1 - P0)/P0*100

Interpretation

Average monthly return for HDFC Bank Limited was found to be 2.9%

Risk, S.D Calculation

Table 4.4: Risk, S.D Calculation of HDFC Bank Limited

FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	-2.28	2.90	-5.18	26.79
May-19	10.55	2.90	7.65	58.51
Jun-19	1.10	2.90	-1.80	3.25
Jul-19	1.30	2.90	-1.60	2.56
Aug-19	3.45	2.90	0.55	0.30
Sep-19	3.74	2.90	0.84	0.70
Oct-19	5.05	2.90	2.15	4.63
Nov-19	5.10	2.90	2.20	4.84
Dec-19	0.17	2.90	-2.73	7.46
Jan-20	13.16	2.90	10.26	105.29
Feb-20	-0.96	2.90	-3.86	14.91
Mar-20	-5.53	2.90	-8.43	71.04
Total				300.29
Variance				27.30
Standard Deviation				5.22

Risk, S.D, σ = Square root (∑ (R - Avg R) ^2) / N-1 FY20 (MoM) Risk for HDFC Bank Limited = 5.22

Interpretation

The HDFC Bank Limited had given a good return of 2.90% per month with a high risk rate of 5.22 during the financial year 2019-20. The return includes a dividend of 6.85 per share during the period of analysis.

Lupin Limited

Lupin restricted could be a international drug company primarily based in Mumbai. it's the seventh-largest company by market capitalization; and also the 10th-largest generic drug company by revenue globally. lupine is that the fifth-largest generic drug company within the US by prescription-led market share and 3rdlargest Indian company by revenue. it' the excellence of being the quickest growing generic pharmaceutical player within the 2 largest pharmaceutical markets of the globe – the US and Japan; and is that the fourth largest and also the quickest growing generic pharmaceutical player in African nation.

Return, R (Avg) Calculation

Table 4.5: Return, R (Avg) Calculation of Lupin Limited

FY 2019-20	P0	P1	Dividend	R
Apr-19	945.10	989.60		4.71
May-19	1010.10	935.95		-7.34
Jun-19	921.95	1048.05		13.68
Jul-19	1049.55	1181.75	3.00	15.60
Aug-19	1165.40	1285.40		10.30
Sep-19	1289.85	1395.65		8.20
Oct-19	1386.80	1369.05		-1.28
Nov-19	1359.35	1480.45		8.91
Dec-19	1460.85	1427.95		-2.25
Jan-20	1429.20	1585.30		10.92
Feb-20	1554.70	1746.95		12.37
Mar-20	1796.95	2008.40		11.77
Total				85.57
Average Return, R				7.13

Return, R = Dividend + (P1 - P0)/P0*100 FY20 (MoM) Return for Lupin Limited =7.13%

Interpretation

During the period of analysis the average monthly return for Lupin Limited was 7.13%

Risk, S.D Calculation

Table 4.6: Risk, S.D Calculation of Lupin Limited

FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	4.71	7.13	-2.42	5.86
May-19	-7.34	7.13	-14.47	209.41
Jun-19	13.68	7.13	6.55	42.87
Jul-19	15.60	7.13	8.47	71.67
Aug-19	10.30	7.13	3.17	10.03
Sep-19	8.20	7.13	1.07	1.15
Oct-19	-1.28	7.13	-8.41	70.73
Nov-19	8.91	7.13	1.78	3.16
Dec-19	-2.25	7.13	-9.38	88.02
Jan-20	10.92	7.13	3.79	14.38
Feb-20	12.37	7.13	5.24	27.41
Mar-20	11.77	7.13	4.64	21.50
Total				566.20
Variance				51.47
Standard Deviation				7.17

Risk, S.D, σ = Square root (∑ (R - Avg R) ^2) / N-1 FY20 (MoM) Risk for Lupin Limited = 7.17

Interpretation

The Lupin Limited had given an excellent return of 7.13% with comparatively low risk of 7.17 during FY 20. The return includes a dividend of 3 per share.

Hindustan Unilever

Hindustan Unilever restricted (HUL) is Associate in Nursing Indian trade goods company primarily based in Mumbai, geographical area. it's in hand by Anglo-Dutch Company Unilever that owns a fifty one.51% dominant share in HUL as of March 2015 and is that the company of HUL. HUL's product embrace foods, beverages, improvement agents, aid product and water purifiers.

Return, R (Avg) Calculation

Table 4.7: Return, R (Avg) Calculation of HUL

FY 2019-20	P0	P1	Dividend	R
Apr-19	601.75	567.50		-5.69
May-19	562.15	603.35		7.33
Jun-19	601.00	620.35	7.50	10.72
Jul-19	628.85	686.60		9.18
Aug-19	693.55	742.45		7.05
Sep-19	740.40	746.00		0.76
Oct-19	736.15	738.35	6.00	6.30
Nov-19	739.85	786.10		6.25
Dec-19	808.65	760.10		-6.00
Jan-20	758.45	932.55		22.95
Feb-20	908.00	910.10		0.23
Mar-20	935.65	873.55		-6.64
Total				52.44
Average Return, R				4.37

Return, R = Dividend + (P1 - P0)/P0*100

Interpretation

FY20 (MoM) Return for Hindustan Unilever Limited has been found as 4.37%

Risk, S.D Calculation

Table 4.8: Risk, S.D Calculation of HUL

FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	-5.69	4.37	-10.06	101.24
May-19	7.33	4.37	2.96	8.76
Jun-19	10.72	4.37	6.35	40.32
Jul-19	9.18	4.37	4.81	23.17
Aug-19	7.05	4.37	2.68	7.19
Sep-19	0.76	4.37	-3.61	13.06
Oct-19	6.30	4.37	1.93	3.72
Nov-19	6.25	4.37	1.88	3.54
Dec-19	-6.00	4.37	-10.37	107.62
Jan-20	22.95	4.37	18.58	345.39
Feb-20	0.23	4.37	-4.14	17.13
Mar-20	-6.64	4.37	-11.01	121.16
Total				792.28
Variance				72.03
Standard Deviation				8.49

Risk, S.D, σ = Square root (∑(R - Avg R) ^2) / N-1

Interpretation:

FY20 (MoM) Risk for Hindustan Unilever Limited was found to be 8.49%

The HUL has given a return of 4.37% with a high risk of 8.49 during FY20 (MoM). This includes a dividend of 13.50 per share.

Tata Consultancy Services

Tata practice Services restricted (TCS) is associate degree Indian international info technology (IT) service, consulting and business Solutions Company headquartered in Bombay, geographic area. TCS operates in forty six countries. It's a subsidiary of the Tata Group and is listed on the Bombay Stock Exchange and the National securities market of Republic of India. TCS is one in all the biggest Indian companies by capitalization ($80 billion) and is that the largest India-based IT services company by 2013 revenues. TCS is currently placed among the 'Big 4' most precious IT services brands worldwide. In 2013, TCS is graded 57th overall within the Forbes World's Most Innovative firms ranking, creating it each the highest-ranked IT services company and therefore the 1st Indian company. it's the world's tenth largest IT services supplier, measured by the revenues.

Return, R (Avg) Calculation

Table 4.9: Return, R (Avg) Calculation of TCS

FY 2014-15	P0	P1	Dividend	R
FY 2019-20	2176.70	2189.20		0.57
Apr-19	2208.45	2141.35		-3.04
May-19	2129.85	2425.40	20.00	33.88
Jun-19	2390.75	2480.05	45.00	48.74
Jul-19	2516.40	2522.35		0.24
Aug-19	2537.15	2736.60		7.86
Sep-19	2775.60	2607.85	5.00	-1.04
Oct-19	2590.35	2643.00		2.03
Nov-19	2692.95	2558.25		-5.00
Dec-19	2545.55	2482.05		-2.49
Jan-20	2514.20	2675.25		6.41
Feb-20	2669.40	2553.95		-4.32
Total				83.82
Average Return, R				6.98

Return, R = Dividend + (P1 - P0)/P0*100

Interpretation

FY20 (MoM) Return for Tata Consultancy Services Limited was found to be 6.98%

Risk, S.D Calculation

Table 4.10: Risk, S.D Calculation of TCS

FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	0.57	6.98	-6.41	41.03
May-19	-3.04	6.98	-10.02	100.37
Jun-19	33.88	6.98	26.90	723.43
Jul-19	48.74	6.98	41.76	1743.50
Aug-19	0.24	6.98	-6.74	45.48
Sep-19	7.86	6.98	0.88	0.78
Oct-19	-1.04	6.98	-8.02	64.38
Nov-19	2.03	6.98	-4.95	24.48
Dec-19	-5.00	6.98	-11.98	143.57
Jan-20	-2.49	6.98	-9.47	89.77
Feb-20	6.41	6.98	-0.57	0.33
Mar-20	-4.32	6.98	-11.30	127.80
Total				3104.90
Variance				282.26
Standard Deviation				16.80

Risk, S.D, σ = Square root (∑(R - Avg R) ^2) / N-1

Interpretation

FY20 (MoM) Risk for Tata Consultancy Services Limited = 16.80, i.e, The TCS has got extremely high risk of 16.80 with a return of 6.98% during FY20 (MoM). And also the return includes a total dividend of 70 per share.

Tata Motors

Tata Motors restricted (formerly telephone service, short for Tata Engineering associated Locomotive Company) is an Indian multinational automotive producing company headquartered in Mumbai, geographic area, Asian country and a subsidiary of the Tata cluster. Its merchandise embrace traveler cars, trucks, vans, coaches, buses, construction instrumentality and military vehicles. it's the world's 17th-largest motor vehicle producing company, fourth-largest truck manufacturer, and second- largest bus manufacturer by volume.

Return, R (Avg) Calculation

Table 4.11: Return, R (Avg) Calculation of Tata Motors

FY 2019-20	P0	P1	Dividend	R
Apr-19	403.15	414.75		2.88
May-19	414.75	415.05		0.07
Jun-19	420.75	431.30		2.51
Jul-19	450.80	446.75	2.00	1.10
Aug-19	440.00	525.05		19.33
Sep-19	520.00	502.15		-3.43
Oct-19	502.75	535.85		6.58
Nov-19	531.40	533.50		0.40
Dec-19	536.00	495.55		-7.55
Jan-20	498.45	585.15		17.39
Feb-20	592.25	593.35		0.19
Mar-20	585.00	550.20		-5.95
Total				33.52
Average Return, R				2.79

Return, R = Dividend + (P1 - P0)/P0*100

Interpretation

Average monthly return for Tata Motors Limited was found as 2.79% during analysi.

Risk, S.D Calculation

Table 4.12: Risk, S.D Calculation of Tata Motors

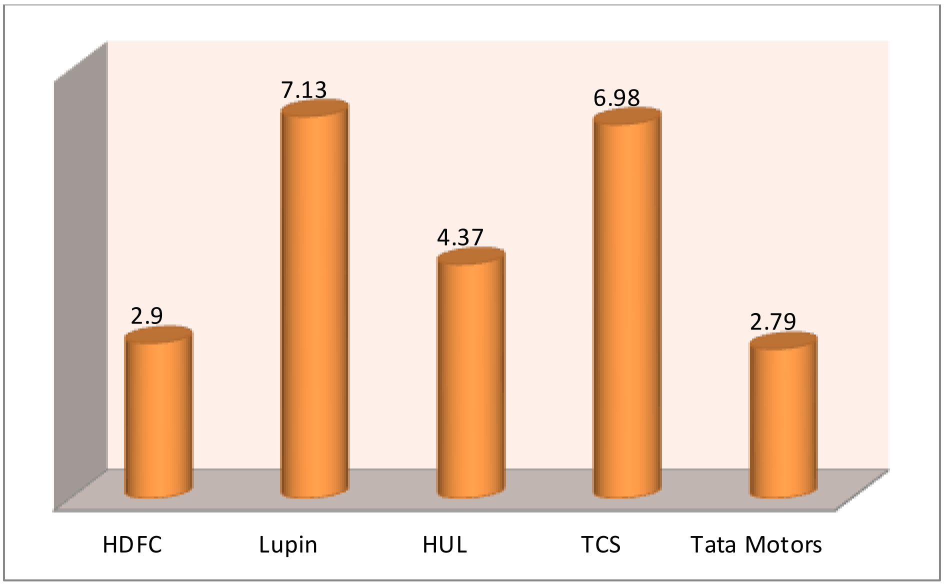
FY 2019-20	R	Average R	(R - Avg R)	(R - Avg R)^2
Apr-19	2.88	2.79	0.09	0.01
May-19	0.07	2.79	-2.72	7.39
Jun-19	2.51	2.79	-0.28	0.08
Jul-19	1.10	2.79	-1.69	2.85
Aug-19	19.33	2.79	16.54	273.56
Sep-19	-3.43	2.79	-6.22	38.72
Oct-19	6.58	2.79	3.79	14.39
Nov-19	0.40	2.79	-2.39	5.74
Dec-19	-7.55	2.79	-10.34	106.85
Jan-20	17.39	2.79	14.60	213.27
Feb-20	0.19	2.79	-2.60	6.78
Mar-20	-5.95	2.79	-8.74	76.37
Total				746.00
Variance				67.82
Standard Deviation				8.24

Risk, S.D, σ = Square root (∑(R - Avg R) ^2) / N-1 FY20 (MoM) Risk for Tata Motors Limited = 8.24

Interpretation

The Tata Motors has given a low return of 2.79% compared to others with a high risk of 8.24. The return includes a dividend of 2 per share.

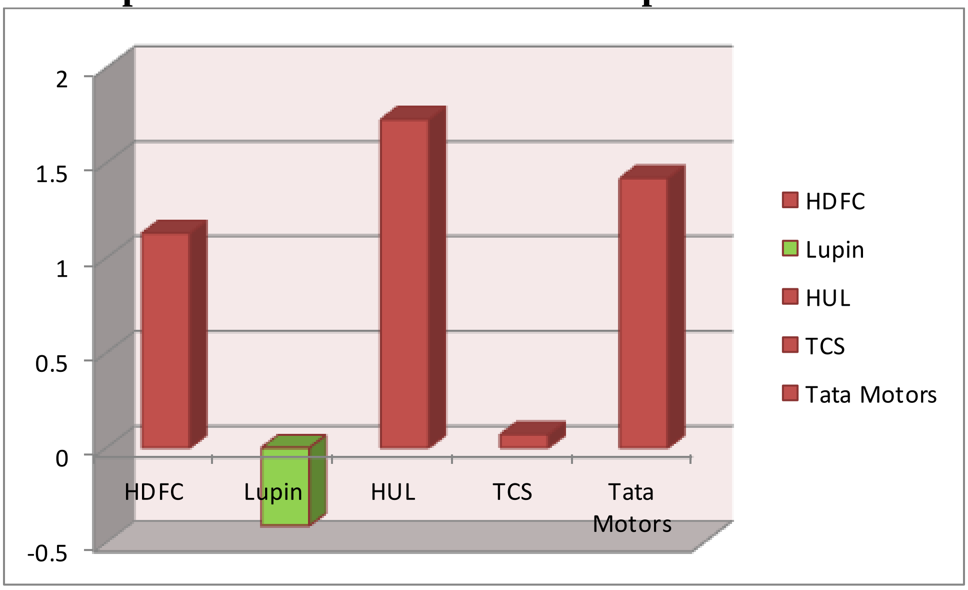
Chart 4.1 Comparison of average monthly returns of identified companies



Interpretation

Inters of average monthly returns Lupin Ltd. stands first with 7.13% followed by TCS, HUL, HDFC, and Tata Motors being the least.

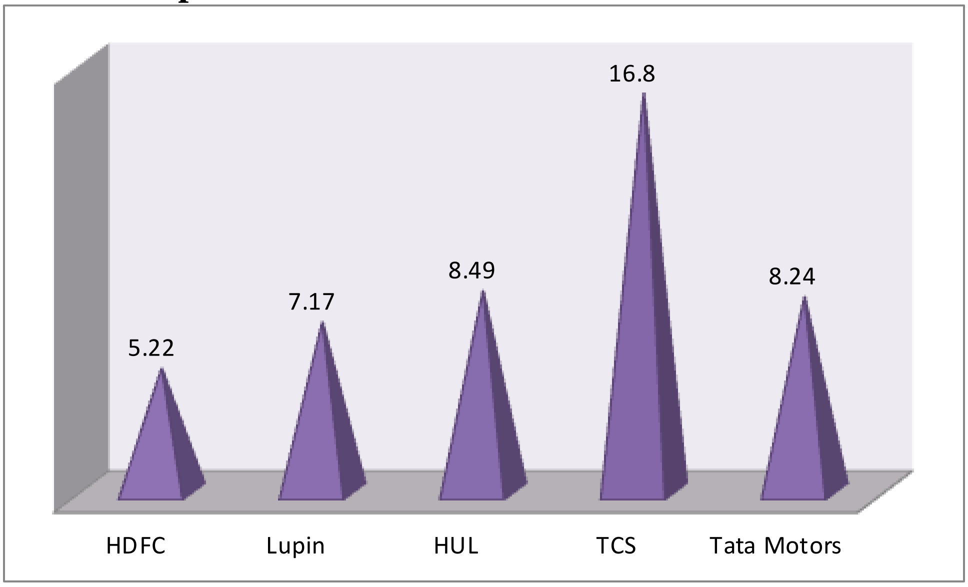
Chart 4.2 Comparison of Beta of identified companies



Interpretation

Lupin has been found to have a negative beta value with opposite relationship with market movement (Nifty) and except TCS other three companies fond to be aggressive than market as per beta value analysis.

Chart No 4.3 Comparison of [SD] risk



Interpretations

On comparing the risk of change in returns was considered, TCS had highest fluctuation or deviation possible followed by Tata Motors & HUL. Lupin with 7.17 chance of fluctuation of returns HDFC had the least volatility in comparison expected returns calculated among the others.

Table 4.13: Calculation of Sharpe's optimal portfolio construction

SECURITIES	Expected Return (R_{1})	Beta (βi)	Unsystematic Risk (E_I)	Excess Return (Ri – R*f*)	Excess Return to Beta Ri – R*f* / þi	Rank
HDFC BANK	2.9	1.13	0.8356	-3.1	2.74	3
LUPIN	7.13	-0.41	5.5792	1.13	2.75	2
HUL	4.37	1.73	1.776	-1.63	0.94	5
TCS	6.98	0.07	16.5284	0.93	14	1
TATA MOTORS	2.79	1.42	2.7304	-3.21	2.26	4

Step 1: calculation of excess returns to beta value for ranking

Note:- In this Rf is assumed as 6% taken bus considering general approximate Savings Bank rate of interest prevailing.

Table 4.14 Ascending order placement as per excess to beta value of return calculations & 'C' Value calculations

SECURITIES	RANK	Ri – R*f*/ þ	(Ri – R*f*)þi/E_I	Σ (Ri – R*f*)þi/E_I	$Þ_1^2/E_I$	Σ $Þ_1/E_I^2$	C^I
TCS	1	14	16.75	16.75	1.53	1.53	***9.88***
LUPIN	2	2.75	0.49	17.24	0.03	1.56	***9.98 [C*]***
HDFC B ANK	3	2.74	1.54	18.78	1.68	3.24	***5.51***
TATA MOTORS	4	2.26	0.14	18.92	0.03	3.27	***5.50***
HUL	5	0.94	0.34	19.26	0.59	3.86	***4.78***

C^i Calculations given below:

C1=6*16.75/1+ (6*1.53) =9.88

C2=6*17.24/1+ (6*1.56) =9.98

C3=6*18.78/1+ (6*3.24) =5.51

C4=6*18.92/1+ (6*3.27) =5.50

C5=6*19.26/1+ (6*3.86) =4.78

Determining C*

The highest Ci value is taken as the cut-off point i.e. C*. The stocks ranked above C* have high excess returns to beta than the cut-off C and all the stocks ranked below C*have low excess returns to beta. Here, the cut-off rate is 9.98. Hence, the two securities are selected.

Calculation of Z Values.

Z_1=1.3/0.8356 (2.74-5.50) =3.73

Z_2=0.41/5.5792 (2.75-5.50) =0.20

Thus, the proportions to be invested in different securities are obtained. The largest investment should be made in security 1 and the smallest in security 2

Calculation of weightage:

$\Sigma Z_i = 3.73 + 0.20 = 3.93$

$X_{1=} = 3.73/3.93 = 0.95*100 = 94\%$

$X_2 = 0.20/3.93 = 0.06*100 = 6\%$

Interpretation

With Sharpe's single index model of portfolio construction in is found that only 2 scrips out of 5 are needed for an optimum portfolio which are TCS & Lupin Limited. And they need the weightage of 94% & 6% respectively for the portfolio to be optimum returnable.

CHAPTER 5:

FINDINGS, SUGGESTIONS AND CONCLUSION

Findings:

As the study on portfolio management makes me to understand and learn many things. The findings of the study are:

- Among the individual stock calculation, Lupin is better stock with return of 7.13% and risk of 7.17 and beta of -0.41. In terms of return HDFC is less than lupin with a return of 2.90, but the risk is less than lupin with 5.22, which is low and with a beta of 1.13. So, HDFC is not a good option for investors to invest.
- On portfolio construction, 96% of TCS & 6% Lupin was found as an optimum portfolio as per the Sharpe's method.
- Finally the noticing thing is that, a portfolio with Lupin is well performed.

Suggestion:

- As per the Study, it is suggested that based on the year of analysis, If any investor have invested their money in a combination of TCS to the extent of 96% of their money & other 6% of the money in Lupin limited, he/she would have earned maximum returns from the portfolio possibilities out of all the combinations possible with these five identifies companies.

- It is also suggested that any portfolio decision should not be based fully out of any one method of calculation as it is too risky and hence only with the concurrence of inputs from other type of portfolio assessments along with Sharpe's an ideal investment decision should be taken.

Conclusion:

On behave of the portfolio management study we can conclude that: The aim and objectives of the study has been achieved and also it's worth reiterating that not to put all your trust in only one investment. It is like "putting all the eggs in one basket" This will help to reduce the risk in the long-term. The investors are benefited by investing in selected scripts of Industries of if the investment decisions are informed ones. Models like Sharpe's & Markowitz would definitely play a great role in facilitating such investor information system.

"Greater Portfolio Return with less Risk is always is an attractive combination" for the Investors.

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