The statistical study provides the fundamentals to fulfill the purpose: The purpose of this thesis is to investigate if an investor can apply modern portfolio theory in order to achieve a higher return than investing in an index portfolio. In this chapter the author present and discuss the empirical findings obtained from the statistical analysis, the result is further analyzed and explained in terms of theoretical parameters and models.

Finally, the result of the optimal risky portfolio’s performance will be compared with the benchmark index, NIFTY 50.

---

**CHAPTER INDEX**

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>Particulars</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1</td>
<td>Findings of the study</td>
<td>215</td>
</tr>
<tr>
<td>6.2</td>
<td>Suggestions from this study</td>
<td>216</td>
</tr>
<tr>
<td>6.3</td>
<td>Summary of the study</td>
<td>217</td>
</tr>
<tr>
<td>6.4</td>
<td>Conclusion of the study</td>
<td>222</td>
</tr>
</tbody>
</table>

References
6.1 FINDINGS OF THE STUDY

Portfolio created as per Markowitz portfolio theory gives more return than NSE Nifty index.

Negatively correlated assets in the portfolio would reduced portfolio risk and minimizes overall risk.

There is slight negative correlation between CNX Nifty and Gold against expected strong negative correlation between Gold and CNX Nifty.

There is considerable correlation between CNX auto and CNX energy against expected quite negative one. This correlation indicates there is an increase in purchasing of Indian individuals.

Positively correlated assets in portfolio would reduce portfolio return.

There is strong positive correlation between CNX finance and CNX bank as well CNX Nifty and CNX 100.

Risk and return of portfolio almost depends on Assets of portfolio and their correlation.

The most widespread criticism of MPT is that it treats both upside and downside volatility as risk. At the heart of Markowitz's theory is a bell shaped curve that shows the "normal distribution" of portfolio returns above and below a mean, known as mean variance.

The distribution curve of returns for each asset class changes depending on the type of regime. Sure enough, when you put all the curves together they produce negative skewness and a fat tail.
6.2 SUGGESTION OF THE STUDY

Never mind that the groundbreaking concept has governed investment discipline for more than 40 years and that Markowitz won a Nobel Prize for it in 1990. Its central tenet—that diversification mitigates portfolio risk—seemed to collapse in 2008 when the bear market left no asset class unvalued. Only Treasuries provided a haven, and according to MPT, Treasuries don't even count. They're just the risk-free baseline at the bottom of the return axis.

Why does MPT look so good on paper, yet fail so spectacularly every few years? Many veteran advisors say the problem isn't with the theory but with its implementation. Others insist MPT doesn't define risk properly. And at banks and universities across the country, experts are tweaking Markowitz's formula to make it more predictive of real-world investment outcomes.

For one thing, 21st-century market volatility would have boggled Markowitz's mind. Indexes now move up or down by 1% or 2% in 24 hours, changes that historically would have taken place over a month.

*MPT died 30 years ago. If it were correct, Warren Buffett, Peter Lynch and Paul Tudor Jones wouldn't have their track records. Asset allocation—and just about anything else—works in a bull market, but the returns driver in a bear market is stock selection and risk management.*

MTP is working in bull market only in bare market it would not be that much effective as advocated by Markowitz and SIM.
6.3 SUMMARY OF THE STUDY

Ch-1 Introduction

This chapter is divided into two parts theoretical framework of modern portfolio theory and basic NSE induction.

This chapter is design to give an understanding and perspective of Modern Portfolio Theory. MPT advocates that it is not enough just to look at the expected risk and return of one particular stock. By investing in number of stock, an investor can obtain the benefits of diversification, a reduction in the volatility or risk of the whole portfolio.

MPT is the philosophical opposite of traditional asset picking. It is the creation of economists, who try to understand the market as a whole, rather than looking for what that makes each investment opportunity unique.

The background gives a historical view within the topic. NSE us mutually-owned by a set of leading financial institutions, banks, insurance companies and other financial intermediaries in India but its ownership and management operate as separate entities. There are at least 2 foreign investors NYSE Euronext and Goldman Sachs who have taken a stake in the NSE. As of 2013, the NSE VSAT terminals, 2799 in total, cover more than 1500 cities across India.

Ch-2 Literature Review:-

Review of literature is supposed to show that you understand how your project fits into the grand scheme of things in your subject.

This chapter can be divided into 2 parts literature review on practical application of modern portfolio theory and literature review on NSE

This also suggests focusing on the more practical, rather than the theoretical, body of knowledge in the field while still demonstrating a command of the relevant literature.
Literature review of portfolio management divided into two parts article review and book review as the same way performance appraisal also divided in some parts of review.

This chapter would provide overview of the research topic and also provides new eye sights regarding research design of the study and also provides the detail concept of the research topic.

Articles regarding portfolio management and performance appraisal will provide information that how much research done in this are and what is the scope for this research work.

**Ch-3 Research Methodology:-**

Research can be classified in many different ways on the basis of the methodology of research. The knowledge it creates, the user group, the research problem it investigates etc,

Research methodology is the heart for any research work. Research method is part of research methodology, research methodology start with title of the research problem and researcher set the objectives of the research, which helpful for society, and other researcher for further research.

After objectives need to review of literatures means idea generation and inspired to do the research. Research methodology included sample design. Sample design shows types of sampling method, sample size, sampling period. Research methodology follow the step, after sampling design then need to identified the hypothesis means set of assumption for study.
Ch-4 Profile of Sampling

Here brief overview of all the units of sample with its basic conception to its all statistics. This will helps in understanding all the samples in better manner. Here author will clarify the indexes which are taken as sample.

The achieved knowledge in the pre-study phase, created a solid base for the author to advance with more specific studies in the subject. The pre-study was constituted by using databases in the university library, and its resources were used as a primary tool to find books, articles and supportive information.

The authors have constructed a portfolio consisting of 10 indexes that are compounded in a specific manner according to the theory. The research is done with a data-set consisting of historical data from 20 indexes performance from their inception. The author have analyzed the secondary data and then constructed a portfolio of these 20 different assets. The historical data of the different indexes is provided by NSE Group.

Ch-5 Data Analysis and Interpretation:-

In this chapter, researcher has put the information into calculation for deriving specific results. Various graphs shows data regarding index performance and outcome of processed data is presented.

Table : 64

<table>
<thead>
<tr>
<th>HYPOTHESIS</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>HYPOTHESIS 1: Asset Allocation by investing in negatively correlated assets reduces your risk.</td>
<td>Null hypothesis is accepted risk can be reduced up to certain extent</td>
</tr>
<tr>
<td>Sub hypothesis 1A: There is negative correlation between CNX ENERGY AND AUTO INDEX</td>
<td>Null hypothesis is <strong>rejected</strong> as there is good correlation found between CNX ENERGY AND AUTO INDEX</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Sub hypothesis 1B: There is negative correlation between CNX Nifty and GOLD</td>
<td>Null hypothesis is <strong>accepted</strong> as there is negative correlation between CNX Nifty and GOLD</td>
</tr>
<tr>
<td>HYPOTHESIS 2: Asset Allocation by investing in positively correlated assets increases your risk.</td>
<td>Null hypothesis is <strong>accepted</strong> as positively correlated assets in the portfolio reduce return.</td>
</tr>
<tr>
<td>Sub hypothesis 2A: CNX Bank Index and CNX Finance Index are positively correlated.</td>
<td>Null hypothesis is <strong>accepted</strong> as there is positive correlation between CNX Bank Index and CNX Finance Index</td>
</tr>
<tr>
<td>Sub hypothesis 2B: CNX Nifty and CNX 100 Index are positively correlated</td>
<td>Null hypothesis is <strong>accepted</strong> as there is positive correlation between CNX Nifty and CNX 100 Index.</td>
</tr>
<tr>
<td>HYPOTHESIS 3: Modern portfolio theory gives higher return</td>
<td>Null hypothesis is <strong>accepted</strong> as return on the optimum portfolio is more than NSE Nifty.</td>
</tr>
<tr>
<td>HYPOTHESIS: 4 NSE 50 represents optimal portfolio</td>
<td>Null hypothesis is <strong>rejected</strong> as there are many other portfolio having minimum risk and maximum return in compare of NSE Nifty.</td>
</tr>
</tbody>
</table>
6. Summery, Findings and Suggestions:-

This chapter concludes or summarizes the total research work. In this chapter finding which derived after analysis and interpretation of the data has been included. Summary of all the chapters is elaborated in brief and a highlight of all the chapters is presents in this chapter.

It is also shows some recommendations i.e. suggestions with the help of the research study. Why does MPT look so good on paper, yet fail so spectacularly every few years? Many veteran advisors say the problem isn't with the theory but with its implementation. Others insist MPT doesn't define risk properly.

And finally author concludes that A thorough understanding of the risk being associated with investment and the ways in which such risks can be mitigated to the best possible extent has been elaborated in this thesis.
6.4 CONCLUSION OF THE STUDY

Here Author would like to conclude that definitely MTP helps investors up to certain extent but assets included in the portfolio is depends on investors which is not specified by MARKOWITS.

A thorough understanding of the risk being associated with investment and the ways in which such risks can be mitigated to the best possible extent has been elaborated in this thesis. To proceed on with the topic a basic understanding of risk and its diversification has been enumerated in the first chapter.

Not just that the widely assumed and practiced principle of mitigating risk and substantially increasing reward by diversifying investment in several stocks, bonds, commodities, etc has been discussed in the thesis; but is diversifying can be risky has also been touched upon. This contrary aspect has been elaborated in context to the investment technique being adopted by the world’s famous and wealthiest investor Warren Buffet; namely a new horizon of the paradox of diversification.

The finding from this study indicates that the actively managed portfolio outperforms the passive benchmark during the selected timeframe. The outcome someway differs when evaluating the risk adjusted result and becomes less significant. The risk adjusted result does not provide any strong evidence for a greater return than index. Finally, with this finding, the authors can conclude by stating that an actively managed optimal risky portfolio with guidance of the MPT can surpass the Nifty 50 within the selected timeframe.
6.5 REFERENCES

Journals & Periodicals

1. Abhigyan, Published by foundation for Organizational Research & Education Delhi
2. Chartered Accountant, Published by Institute of Chartered Accountants of India, Delhi
3. Vikalpa, Published by Indian Institute of Management, Ahmedabad
4. Money & Finance, Published by ICRA Ltd, Delhi
5. bank investment consultant February 2010

News Papers

1. The Times of India published from Mumbai
2. The Economic Times published from Ahmedabad
3. The Economic Times published from Mumbai
4. Financial Express published from Mumbai
5. Business Standard published from Delhi

Websites and blogs

- www.rbi.org
- www.moneycontrol.com
- www.bankinvestmentconsultant.com