

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1 Background of study**

#### **1.1.1 Introduction to mutual fund**

Mutual funds are dynamic financial institutions which play a crucial role in economy by mobilizing savings from varied investors and investing them into various financial instruments. They provide a link between saving and investment opportunities. They assist process of financial intermediation. They mobilize funds in saving market and are complementary to banking activities. Therefore mutual funds have short term and long term impact on saving, capital formation, and financial market and in turn, on national economy.

Mutual fund Regulation, 2007 defines “mutual fund means fund as defined in sub section(m) of section of Securities Act, 2003.” Mutual fund is a corporation or trust whose only business is proper investment of its shareholders' money, generally in common stocks or a combination of stock and bonds, in hope of achieving specific investment goal. Thapa, K. (2013).

Investment Company Institute, the trade organization of Investment company of America defines a mutual fund as “a company that makes investment on behalf of individual and institutions with similar financial goals. Pooling is key to mutual funds. By pooling financial resources of thousands of shareholders, investors gain access to expertise of money managers and wide diversifications of ownership in securities market.

Mutual funds provide investment vehicle for small investors who have not proper knowledge and time to manage portfolio. In the current global scenario, mutual funds are being looked upon as attractive investment avenues especially by small savers. Besides offering portfolio diversification, convenient investment, liquidity and tax benefits of mutual fund constitute an added magnetism for investors.

Mutual fund is a company that pools the money from a group of investors( its shareholders) to buy financial securities, building a less risky portfolio than an individual investor would do ( Kolosov and Soltanadov, 2011). In other words,

mutual fund is an investment intermediary that invests a collected fund on the behalf of its shareholders. People who buy shares of mutual fund are its shareholders.

Small investors who purchase securities individually are often unable to diversify because of their limited investment. Mutual funds offer a way for these investors to diversify. An investment in mutual funds is distinctly different from depositing money in a depository institutions in that it represents partial ownership, whereas deposit represent a form of credit.

Mutual fund mobilizes fund by selling its shares, called units. When an investor owns share in mutual fund he/she owns a proportionate share of securities that the fund has purchased. Thus, mutual funds are investment intermediaries which pool investors' funds to acquire individual investment in different financial instruments and distribute return thereof to unit holders.

### **1.1.2 Theories of mutual fund**

Mutual fund theorem is an investing strategy suggesting the use of mutual funds exclusively in a portfolio for diversification and mean variance optimization. The theories provide guidelines to fund manager regarding portfolio management.

#### Break down mutual fund theory

This theory suggests use of mutual fund investment for building a comprehensive portfolio. This theory was introduced by James Tobin (1956) who worked for alongside Harry Markowitz from 1955 to 1956 at the Cowles Foundation at Yale University.

#### Modern Portfolio Theory

This theory explains the importance of diversification in a portfolio and Portrays how it can limit portfolio risk. Mean variance optimization present by Harry markowitz forms the basis for the theorem. Given mean variance optimization from modern portfolio theory, an investor can identify the optimal allocations in a portfolio. Using a universe of investment, an investor can chart an efficient frontier and identify optimal allocations directed by capital market.

### Markowitz Efficient Set

Markowitz's efficient set is a portfolio with returns that are maximum for a given level of risk based on mean variance portfolio construction. The efficient solution to a given set of mean variance parameters ( a given riskless assets and a given risky basket of assets) can be plotted on what is called the Markowitz efficient frontier. The set is represented on a graph with returns on Y-axis and risk (standard deviation) on X-axis. The efficient set lies along the line is positively correlated with increasing returns or another way of saying this is 'higher risk higher returns'.

### Black Litterman Model

Black Litterman model is an assets allocation model that was developed by Fisher Black and Robert Litterman(1976) of Goldman Sachs. The model is essentially a combination of two main theories of modern portfolio theory; the Capital Asset Pricing Model and Harry Markowitz's mean variance optimization theory. Its major benefit is that it allows portfolio manager to use it as a tool for producing set of expected returns with mean variance optimization framework. This approach was developed to manage issue of model estimation error.

### Multi Factor model

This model employs multiple factors in its calculations to explain market phenomena and/or equilibrium asset prices. It can be used to explain either an individual security or a portfolio of securities. One widely used multi factor model is the Fama and French three factor model. It has three factors: size of firm, book to market values and excess returns on market.

### Efficient Frontier

Efficient frontier is set of optimal portfolios that offers the highest expected return for a defined level of risk or lowest risk for a given level of expected return. Portfolios that lie below efficient frontier are sub-optimal because they do not provide enough return for given level of risk. Optimal portfolios that comprise the efficient frontier tend to have higher degree of diversification than sub-optimal ones.

### 1.1.2 Types of mutual funds

Two types of mutual funds are unmanaged mutual fund and managed mutual funds.

#### a. Unmanaged mutual fund

It is an investment company that offers a fixed, unmanaged portfolio, generally of stocks and bonds. It is designed to provide capital appreciation and/or dividend income. Once, it formulates portfolio and never changes the portfolio over its maturity period. It makes one time public offering only a specific, fixed number of units. When it terminates any remaining investment portfolio securities are sold and the proceeds are paid to investors. Unit investment trusts are examples of this type.

#### b. Managed mutual funds

It is an investment company with a specific portfolio that may be altered at the discretion of fund manager. In managed mutual funds, board of directors, elected by shareholders hires Management Company to manage the portfolio. Generally fund sponsor hires fund manager with expertise in investment to manage the portfolio. There are two kinds of managed mutual funds; open ended and closed ended mutual fund.

##### I) open ended mutual fund:

Open ended mutual fund raises funds by issuing new shares at any times on a continuous basis. It has not maturity period. Its shares are not listed in capital market but fund manager can buy back if unit holders want to sell the units. Units are traded at net asset value.

##### II) Closed ended mutual fund:

In a closed ended fund fixed number of shares is issued at an initial offering. The units of closed ended fund are listed on stock market. They are traded in same way as any corporate stocks.. They have fixed maturity period and are not redeemed until maturity.

### **Investment objective classes:**

There are four primary classes of mutual funds on the basis of investment class. They are:-

Stock fund

Stock funds, also called equity funds invest only in stocks. Such mutual funds are most volatile of the other three, with their values fluctuating over a short time period. They are also categorized as growth fund, income fund, index fund etc. stocks funds

#### Bond Fund

Bond fund, also known as fixed income fund invest in corporate and government bond. Their purpose is to obtain steady and fixed rate of return with lower risk. Risk averter investors like to invest in bond funds. They can range in risk from low such as treasury bond to very risky such as junk bonds.

#### Hybrid Fund

A mutual fund that invests the fund in a mix of stocks and bonds is known as hybrid fund. These funds often referred to as balanced fund are attractive to investors who want to allocate their assets in one investment vehicle. Risk and returns typically are moderate and expense can be high. Investors can achieve similar results by buying separate stocks and bonds.

#### Money Market Fund

Money market funds have relatively low risks, compared to other types of mutual funds and most other investment as well. By law they are limited to invest only in specific short term investment instruments.

### **1.1.4 Advantages of mutual funds**

Mutual funds are most suitable options for small savers to enter into the universe of investment. They act as a investment intermediaries for investors. Followings are the advantages of investing in mutual fund :-

#### Professional management

One of the key importance of mutual funds is professional management. Mutual funds are managed by group of professionals who have expertise on portfolio management. Thus, investor can enjoy higher returns.

#### Diversification and divisibility

A major advantage of mutual fund is that they invest in wide range of options from stocks to bonds to money market instruments. By owing shares in mutual funds instead of individual sharers or bond, investment risk is spread out. This

diversification limits risk because loss from one asset can be offset by gain in other assets.

Low transaction cost

Because mutual funds buy and sell large amount of securities at a time, its transaction costs are lower than what individuals pay for other security transaction.

Liquidity intimidation

Liquidity intimidation means that investors can convert their units into cash quickly. Mutual fund provides facility of buy back when investors want to sell their units.

### **1.1.5 Mutual funds in Nepal**

With flotation of NCM mutual fund in 2050 B.S. (1993A.D.), Nepali financial market entered into new era of mutual funds. It was an open ended scheme with a collected fund of just Rs. 100 million. These days, merchant bankers are coming up with funds 5 to 10 times larger than that, which have become a pivot part of Nepalese financial market.

In Nepal, NCM mutual fund 2050 was established by NIDC Capital market as first mutual fund in 2050 B.S. it floated units of Rs. 10 par value in beginning. The fund was of an open ended type. The performed well at beginning, its performance deteriorated in 2052 B.S. and was restricted as closed ended fund. Similarly, Citizen Unit Scheme (CUS) was operated by citizen Investment Trust (CIT) as a second collective investment scheme in 2052 B.S. CIT has been managing this scheme. It was established as an open ended scheme with face value of Rs. 100 per unit.

Security Board of Nepal (SEBON) is regulatory body of mutual funds in Nepal. It has issued Mutual Fund Regulation, 2067 in order to regulate mutual fund industry. the regulation has specified various terms and conditions of mutual fund operation. The regulation has provisioned the qualities of fund sponsor, fund managers, fund supervisors. Likewise, investment criteria for mutual funds are also clearly specified in the regulation.

Mutual funds in Nepal are managed by merchant bankers (fund managers) and sponsored by 'A' class commercial bank licensed by Nepal Rastra Bank. Only those merchant bankers that are direct subsidiaries of commercial banks can float and

manage mutual funds. As such, mutual funds companies are full subsidiaries of commercial banks.

Currently, there are 11 mutual fund schemes running in Nepalese financial market. Two mutual funds are up-coming and are in pipeline to be approved. These mutual funds have to be approved by SEBON first to publish the offer letter and accept the funds as initial public offerings. When the fund units are allotted, they are listed in NEPSE. NEPSE is only stock exchange in Nepal.

Current mutual funds operating in Nepalese financial market are as follows;

Table 1 Mutual Funds operating in Nepal

S.N.	Name of fund	Symbol	Fund Size(in million Rs.)	Maturity period(years)
1	Laxmi Value Fund	LVF 1	500	5
2	Siddhartha Equity Oriented Scheme	SEOS	1000	5
3	NMB Sulav Fund	NMBSF	750	7
4	NIBL Samriddhi Fund	NIBLSF	1000	7
5	Global IME Samunnat Scheme	GISF 1	1000	5
6	Nabil Equity Fund	NEF	1000	7
7	NMB Hybrid Fund	NMBHF	1250	5
8	NIBL Pragati Fund	NIBLPPF	750	7
9	Laxmi Equity Fund	LEF	1250	5
10	Siddhartha Equity Fund	SEF	1500	5
11	Sanima Equity Fund	SEF 1	1300	5
Total			11300	

Source: website of SEBON( [www.sebon.gov.np](http://www.sebon.gov.np))

### 1.1.6 Structure of mutual fund in Nepal

There may be different structure of mutual fund in different jurisdiction. In case of Nepal, Mutual Fund Regulation, 2067 has conceptualized the structure of mutual fund with fund sponsor, fund supervisor, fund manager and depository. The regulation has also stated roles of each of these parts of mutual funds.

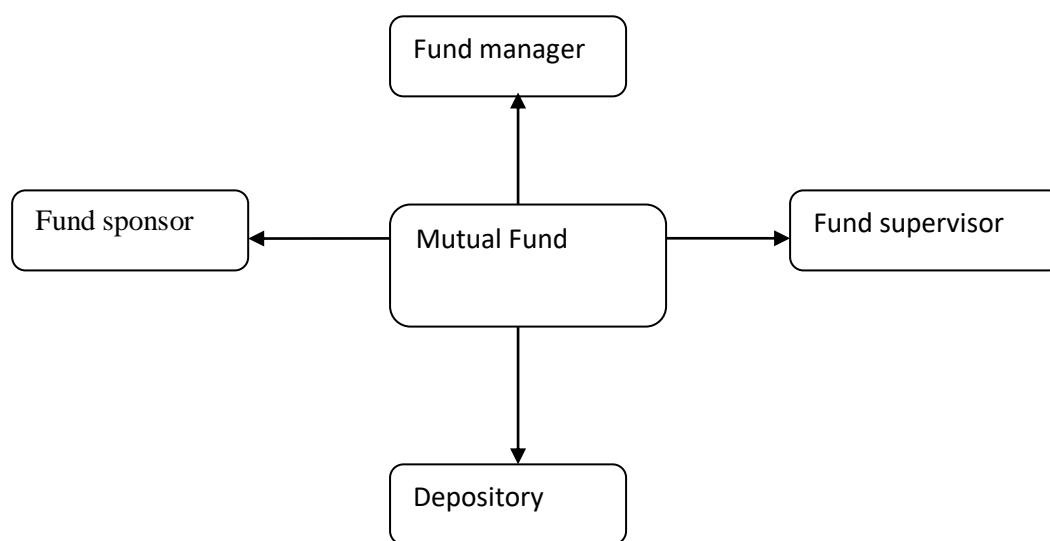


Figure 1.1: Structure of mutual fund in Nepal

#### Fund sponsor

A commercial bank licensed by NRB can be sponsor of mutual fund scheme. The bank shall also meet other requirements as prescribed by regulation. For example, Siddhartha Bank Ltd is fund sponsor of Siddhartha equity Oriented Scheme.

#### Fund Supervisor

A group of minimum five different reputed professionals having specified qualifications in area of economics, management, corporate law, finance and accounts are fund supervisors. They are appointed by fund sponsor by taking approval from SEBON.

#### Fund Manager

Fund manager is company having at least 51% ownership of fund sponsor. Fund manager brings various mutual fund schemes in operation. With its investment expertise, fund manager puts its efforts to properly manage risk and invest wisely to provide maximum returns to unit-holders.



## Depository

Depository is institution established for safekeeping of assets, keeping records of unit-holders, transferring ownership and distributing dividends etc. As per mutual fund regulation 2067, the fund manager can also act as depository. For example Siddartha Capital Limited acts as depository for Siddartha equity Oriented Scheme.

### **1.2 Statement of problem**

After the restoration of democracy, the privatization and globalization of economic and commercial sector has been some sort of economic boom. This has brought changes in capital market. In spite of growth in security market the success of mutual fund is not noticeable in country while on the other hand number of transaction of mutual fund units is alarmingly low. Since mutual fund is quite a new and emerging concept of for Nepalese investors, and still in growing phase through study has to be made.

As has been mentioned in background of study, most people do not have expertise and time to manage portfolio, they need such collective investment scheme. Recently, 10 mutual funds are in operation in Nepal. Then which mutual fund has performed best, how does mutual fund industry is going on, whether their performance is consistent or not whether investors are satisfied from return etc. questions have been arisen.

Apart, problems such as how to survive in present market, what investment strategies will be applied, how to provide return consistently to unit holders etc. are faced by mutual fund companies.

### **1.3 Research Question**

Based on statement of problem following questions can be raised in this regard to performance of mutual funds. And the study tries to answer the following questions:-

- i) What is the financial status of selected mutual funds?
- ii) Does there exist any relationship between risk and return of mutual fund returns?
- iii) What is the investment pattern of mutual fund industry in Nepal?

#### **1.4 Objectives of study**

The study has mainly focused on financial performance of mutual fund. Since mutual fund is quite a new and emerging concept for Nepalese investors and still in growing phase, a thorough study has to be made. The current problems and future potentiality are the subject matter of this study. Besides this, study has tried to clear about necessity of mutual funds and to give feedback for better performance.

Main objective of this study is to assess financial performance of mutual funds in Nepal. The other specific objectives are as follows:-

- 1 To analyze investment portfolio of mutual fund schemes
- 2 To examine risk-return analysis of funds selected
- 3 To examine growth and development of mutual funds in Nepal.

#### **1.5 Significance of study**

Few studies have been conducted in Nepal regarding the performance of mutual funds. The studies have shown that Nepalese funds are not performing well in the country. As the objectives set for the study is to examine performance of mutual funds, this study would be an important paper who are willing to invest in mutual funds. Nepalese mutual funds have not really played a significant role in financial market. Investors also seem to be less interested in these products as trading at NEPSE indicates.

So, in these perspectives this study is useful to individual investors, related mutual fund companies, fund sponsors, policy makers, researchers and companies thinking to introduce new mutual fund in future. Small investors can make investment decisions. This study is concerned with financial intermediaries: it will be useful for those who wish to peruse study on development of capital market. This may help in development of capital market as well.

#### **1.6 Limitations of study**

This study is for partial fulfillment of requirements for master of business studies. It can be said that it is mini research conducted only to have clear knowledge about

financial performance of mutual funds in Nepal. Only few financial and statistical tools have been applied for analyzing pertaining information and data. Basically the study has not covered the technical aspect of mutual fund companies. Besides time constraint is certain as thesis has to be submitted within fixed period. Within this period, the area covered has been limited.

Followings are limitations of this study:-

- i. Only financial performance of mutual funds is analyzed. Other aspects such as managerial expertise, investors' satisfaction compliance etc are not examined.
- ii. The study is limited to selected four mutual fund schemes
- iii. Only questionnaire method has been used to collect primary data.
- iv. Study is confined only to Nepali mutual fund industry.
- v. Respondents outside Kathmandu valley are not observed in this study.
- vi. Because of time and resource constraint, convenient sampling method has been adopted to select respondents. Therefore, all the limitations those are applicable to convenient sampling are applicable to this study.

Nevertheless, efforts have been undertaken to present latest data as far as possible.

### **1.7 Organization of study**

As research is systematic and organized study of problem, it has specific organized format. The study has been organized into five main chapters. Brief description of each chapter is as follows.

#### **Chapter I Introduction**

This is introductory chapter which contains background of study, statement of problem, objectives of study, significance of study, limitation of study and organization itself.

#### **Chapter II Literature Review**

This chapter contains conceptual framework i.e. theoretical analysis and review of related researches by academicians and research studies that give ample knowledge to

researcher. This chapter has also considered research gap i.e. how this present study is different from past studies.

### Chapter III Research Methodology

This chapter involves all about research methodology used in the research work. This includes research design, types and sources of data, population and sample, method and procedures of data collection, models used for data analysis and data presentation and analysis tools.

### Chapter IV Presentation and Analysis of Data

This is the major part of study and presents the data and information collected from primary and secondary sources. It includes presentation and analysis of data, models applied to analyze the data.

### Chapter V Summary, Conclusion and Recommendation

In this chapter, results obtained from chapter four are presented and analyzed. A brief summary of findings is presented. Conclusions are drawn from findings and few suggestions from researcher are also mentioned.

Bibliography and appendix section are enclosed at the end of the thesis.

## **CHAPTER-II**

### **LITERATURE REVIEW**

This chapter presents the related literature about present researches that have been reviewed by researcher. This serves as a source of information in building the foundation of researcher. In order to have an understanding of all the variables involved in study and to gain knowledge on the subject matter, this chapter has been divided into three parts:

- a) Conceptual Framework
- b) Review of earlier studies
- c) Research gap

#### **2.1 Conceptual Review**

This part of literature review focuses on the conceptual review of mutual funds. In this section an attempt has been made to review about the concept of investment companies, policy provisions. It is based on review of related books, journals, articles, unpublished thesis related websites and studies undertaken nationally and globally.

##### **2.1.1 Concept of Mutual Funds**

Mutual funds are diversified investment companies that pool investor's money to purchase stock, bonds and other financial assets. When an investors purchases shares of mutual fund, he/she pays Net Asset Value (NAV) plus any applicable sales loads and transaction fees. Mutual fund can be thought as an inv.co. That brings together group of people and invests their money in various assets like stock, bonds, and other securities.

Mutual fund actually is a pool of investable fund that allows small investors access to a well diversified portfolio of equities, money market instrument and bond etc. Each investors own shares which represents a portion of holding of funds. They anticipated in gain or loss of funds.

An investment company is mutual fund that sells shares and uses the proceeds to manage portfolio of assets. Mutual fund represents a pool of financial source obtained

from individual investors who are the actual shareholders of the fund. Mutual funds have grown substantially in recent years and they serve as major supplier of financial resource in financial market. The performance mutual funds will be based on the performance of securities and other assets that the fund has purchased.

Mutual funds provide investment vehicle for small investors who have not proper knowledge and time to manage portfolio. In the current global scenario, mutual funds are being looked upon as attractive investment avenues especially by small savers. Besides offering portfolio diversification, convenient investment, liquidity and tax benefits of mutual fund constitute an added magnetism for investors.

Mutual funds are diversified investment companies that pool investor's money to purchase stock, bonds and other financial assets. When an investors purchases shares of mutual fund, he/she pays Net Asset Value (NAV) plus any applicable sales loads and transaction fees. Mutual fund can be thought as an inv.co. That brings together group of people and invests their money in various assets like stock, bonds, and other securities.

### **2.1.2 Policy provisions regarding mutual funds**

Mutual fund regulation, 2067 has made various policy provisions regarding establishment and operation of mutual funds in Nepal. The regulation has defined mutual fund, fund sponsor, fund supervisor, fund manager and mutual fund scheme.

Chapter 6 of regulation is about registration and operation of scheme. It has specifies terms and conditions regarding registration of mutual fund. Chapter 8 of regulation has specified different areas of mutual fund investment. According to Section 34 of regulation, fund manager can invest in following areas:

- a) Securities that are registered with board
- b) Securities called for public offering
- c) Securities that are listed at stock exchange
- d) Debentures, Treasury bills and other instrument of money market issued by government of Nepal
- e) Bank deposit
- f) Other areas as prescribed by the board.

The regulation has clearly specifies that fund manager should not use the fund for providing loan and carrying losses. Section 37 of regulation says that subject to prevalent laws, maximum up to 25% of total assets of any scheme may be invested in foreign capital market.

Chapter 9 of regulation is about financial statements, audit and disclosures. As per the regulation fund should maintain books of account in format and standards as prescribed by board. Fund manager is obliged to submit audited financial statements of current fiscal year and annual reports regarding job performed in that fiscal within three months of completion. Fund manager should disclose publically information regarding net asset value and selling and re-purchase price of units of scheme at least once a week.

Similarly fund manager should disclose following details of information within 15 days of completion of that month to board and should publish the same in national daily at least once:

- a) Amount invested in securities
- b) Market price of invested securities
- c) Income and expenditure of scheme net asset value per unit of securities issued under the scheme and basis of such price calculation.
- d) Other details as prescribed by the board.

### **2.1.3 Value of Fund**

Net Asset Value (NAV) which is a fund's assets minus liabilities is the value of mutual fund. NAV per share is value of one share in the MF and it is number that is quoted in newspaper. If you see a fund with NAV of Rs. 15, then you can expect to buy the show for Rs. 15 per share or sell it for Rs. 15 share. It fluctuates everyday as fund holdings and shares outstanding change. NAV can be founded by solving following equation:

$$\text{NAV} = \text{Total Assets} - \text{Liabilities}$$

NAVs are helpful in keeping eyes on mutual funds price movement. However, NAV alone is not sufficient to keep track of performance. Mutual funds are forced by law to distribute at least 90 percent of its realized capital gains and dividend income each

year. When a fund pays out the distribution, the NAV drops by amount paid. The most important thing to keep in mind is that NAVs change daily.

#### **2.1.4 Performance Measure of mutual fund**

To measure the mutual fund performance, some numerical indexes have been devised in literature and these are widely used in practice. The well known measures like reward to volatility ratio (Sharpe, 1996) and reward to variability ratio (Treyner, 1965) are indicators of the expected return of mutual fund and the risk level of mutual fund. The portfolio evaluation model developed incorporates the risk aspects.

A measure of portfolio performance is defined as the difference between actual return on a portfolio its level of systematic risk and actual returns on market portfolio. Also, Fletcher and Forbes (2004) investigated the performance of mutual fund between January 1998 and 2003 in United Kingdom. They applied stochastic discount factor approach across the models like CAPM Campbell's linear factor model, arbitrage pricing theory and Carharts' Four-factor model.

Return alone should not be used as basis of measure of performance of MF scheme; it should also include risk taken by fund manager. Risk associated with a fund in general can be defined as variability or fluctuation in returns generated by it. The higher fluctuation in returns of fund during given fund is measured in terms of standard deviation of returns of the fund. Systematic risk on the other hand, is measured in terms of beta ( $\beta$ ). The more responsive the NAV of mutual fund is to changes in market, higher will be the beta.

In order to determine risk adjusted returns of inv, portfolios, several eminent scholars have worked since 1960s to develop composite performance indices to evaluate a portfolio by comparing alternative portfolio within a particular risk class. The most important and widely used measures of performance are:

- I. Sharp Measure
- II. Treynor Measure
- III. Jensen Measure

I. Sharp Measure



In 1960, William F. Sharpe developed this portfolio performance analysis measure in order to determine which portfolio offers most favorable risk-return trade-off, we compute ratio of historical returns in excess of risk free rate of return to the standard deviation of portfolio returns. The portfolio offering highest reward/ risk ratio is chosen by investors using average return of portfolio Sharpe measure measures ex-post portfolio performance.

This index is a ratio of returns generated by the fund above risk free rate of returns and total risk associated with it. So the measure evaluates fund performance on the basis of reward per unit of total risk. Symbolically it can be written as;

$$S_i = \frac{R - R_f}{\sigma}$$

Where,

$S_i$  = Sharpe index

$R$  = rate of return

$R_f$  = Risk free rate of return

While positive shows a superior performance, a low and negative is an indicator of unfavorable performance.

## II. Treynor Measure

Treynor introduced two types of risks: systematic risk and unsystematic risk. Developed by Jack Treynor, this index is a ratio of return generated by fund above risk free rate of return to systematic risk associated with it (i.e. beta). It is used to measure performance of managed portfolio in respect of return per unit of risk. In this way the fund which provides highest return per unit of risk will be preferred as investment. Symbolically it can be expressed as;

$$T_i = \frac{R - R_f}{\beta}$$

Where,

$T_i$  = Treynor

$R$  = rate of return

$R_f$  = risk free rate of return

A high and positive  $T_i$  shows a superior risk adjusted performance of a fund. A low and negative  $T_i$  is an indication of unfavorable performance.

### III Jensen Measure

Jensen's model proposes another composite risk adjusted performance measure. This involves evaluation of returns that the fund has generated vs. the returns actually expected out of fund at given level of its systematic risk. According to this model the fund which generates higher return than expected return of investors is accepted. It is expressed as;

$$\varepsilon(R) = R_p - [R_f + \beta(R_m - R_f)]$$

where,

$\varepsilon(R)$  = Expected rate of return

$R_f$  = Risk free rate of return

$R_m$  = market return

$B$  = beta

Higher gap represents superior performance of fund and vice versa.

### 2.1.5 Key variables affecting mutual fund performance

#### a) Rate of return / Holding Period Return

It is the gain or loss experienced on an investment over a given period of time. Mutual fund can generate returns to its shareholders in following three ways:

i Dividend payment

ii. Capital gain payment

iii. Increase in NAV Value

Therefore, the HPR of closed ended fund can be calculated by adding the changes in net asset value to the amount of capital gain and dividend and then dividing the sum by NAV at beginning. Symbolically,

$$HPR = \frac{NAV_1 - NAV_0 + \text{Capital gain} + \text{Dividend}}{NAV_0}$$

#### b) Consistency of performance

Investment performance is a key dimension in selection of mutual fund. The amount of cash dividend, capital gain, and growth in capital are important aspects of return. Consistency in such indicators indicates investors to judge investment performance.

c) Expense ratio

Expense ratio reflects the operating cost, excluding brokerage cost spent by fund manager to manage the fund. It is expressed as percentage of fund's net assets under management. Other things being equal, low expense ratio is beneficial to investors.

d) Load fees

Load fee is commission that the mutual fund charges when shares are bought and sold. A load fund might be better for a long holding and a non-load fund is generally better choice for short holding. Higher the load fee, higher the cost of investment.

e) Portfolio turnover

In actively managed mutual fund, portfolio manager revise portfolio to reflect changing turnover and market sentiment. Frequent revision results in large portfolio turnover ratio resulting into reduced HPR. Hence, portfolio turnover ratio is also analyzed in the light of its effect on HPR.

## **2.2 Review of Earlier Studies**

This part present and discuss the literature in the field of performance measurement of mutual fund. Since, academic researchers in this field are quite rare in Nepal, my objective is to provide an overview of different theories and methods and further encourage their application in Nepalese m mutual fund industry. Some of literatures studied by researcher and their findings are presented in brief as follows;

Sharpe, W. F. (1965) developed a composite measure of return and risk. He evaluated 34 open-end mutual funds. Reward to volatility ratio for each scheme was significantly less than DJIA (Dow Jones Industrial Average). Expense ratio was inversely related with the fund performance. The results depicted that good performance was associated with low expense ratio and not with the size. Sample schemes showed consistency in risk measure.

Treynor and Mazuy (1966) evaluated the performance of 57 fund managers in terms of their market timing abilities and found that fund managers had not successfully outguessed the market. The results suggested that investors were completely dependent on fluctuations in market. The study adopted Treynor's measure for reviewing performance of mutual funds.

Jenson (1968) developed a composite portfolio evaluation technique concerning risk-adjusted returns. He evaluated the abilities of 115 fund managers in selecting securities. Analysis of net returns indicated that 39 funds had above average returns. Jenson concluded that there was little evidence that funds were able to perform significantly better than expected.

Fama (1972) developed method to distinguish observed return due to ability to pick up the best securities at a given level of risk from prediction of price movement. He introduced multi period model allowing evaluation on a period-by-period and on a portfolio constitutes of returns for securities selection and return for bearing risk.

Bajracharya R.B. (2016) found that most of the mutual funds selected by him have performed better according to Treynor and Jensen measure but up to the benchmark on the basis of Sharpe's ratio. However, few mutual funds are well diversified and have reduced their unique risk.

Gupta and Gupta (2004) in the paper 'performance evaluation of selected mutual fund schemes;an empirical study' have studied the performance of 57 growth schemes using net assets value for the period 1999to 2003. The paper used performance evaluation measure of Sharpe, Treynor, Jensen and Fama to arrive at finding. They founded that some funds performed better than market because only few managers had stock selection skill and as a result funds were exposed to large diversifiable risk.

Goel et al.(2012) argue that performance of mutual fund is measured by its NAV. There are different factors that affect NAV. These factors are also taken as performance indicators. Past performance of mutual fund explains how the funds have performed in pastand accordingly one can expect positive or negative performance in future as well.

Irwin, Brown, FE (1999) analyzed issues relating to investment policy, portfolio turnover rate, performance of mutual funds and its impact on the stock market. They

identified that mutual funds had a significant impact on price movement in stock market. They concluded that on an average, funds did not perform better than the composite market and there was no persistent relationship between portfolio turnover and fund performance.

Gupta Ramesh (1991) evaluated fund performance in India comparing the returns earned by schemes of similar risk and similar constraints. An explicit risk return relationship was developed to make comparison across funds with different risk, return from managers' risk and target risk. The ranking of performance showed better consistency between four-year periods and relatively lower consistency between adjacent two years periods.

Barun V. (1991) made an attempt to evaluate the master share scheme of UTI using the four data 1987 to 1990. His conclusion was that Master Share Scheme outperformed the market in terms of Net Asset Value and the scheme benefited large investors rather than small investors. Master share outperformed based on market risk.

Shasikant, U. (2015) critically examined the rationale and relevance of mutual fund operation in Indian money market. She pointed out that money market mutual funds with low risk and low return offered conservative investors a reliable investment avenue for short-term investment.

Sapar, Narayan R. and Madav, R. (2015) conducted a research on the performance evaluation of Indian mutual funds in a bear market. They started with sample of 55 schemes for computing relevant performance. Mean monthly return and risk of sample funds were 5.9% and 7.1% respectively, compared to similar statistics of 8.57% and 11.12% of market portfolio.

Pradhan, M. (2017) conducted a study on 'problems and prospects of mutual fund companies in Nepal'. Her study focuses on finding out better portfolio performance and to identify challenges to do better performance and find out their solutions. She concluded that Citizen Unit Scheme is new concept in Nepal. She found Nepalese mutual fund have not performed as expected due to various reasons such as lack of diversified investment opportunities, underdeveloped capital market and passive investors.

Dhakal, S. (2015) studied the performance of mutual funds in taking three funds as sample. He found Siddartha Investment growth Scheme and Nabil Balance Fund have better performance as per Sharpe index. According to him, NIBL Samridi Fund has higher performance on the basis of Treynor index.

Majority of studies suggests that the mutual fund companies having higher turnover have performed well than companies with lower turnover. Expense ratio affects the performance of mutual fund positively. Mutual funds with larger asset base are performing better than lower asset base.

Now, the main purpose of this research is to examine the risk and return characteristics of Nepalese mutual fund schemes. Risk-adjusted performance is evaluated using three widely accepted and used techniques, i.e. Sharpe Measure, Treynor Measure and Jensen Measure. How mutual funds are performing financially is an empirical question, which the researcher addresses in this research.

### **2.3 Research Gap**

As financial literacy in Nepal is increasing smoothly, people have started to shift their saving towards mutual fund. Many researchers have been conducted in abroad regarding performance of mutual fund the history of mutual funds has crossed two decades in Nepal. During this period of time, some new funds have entered into operation.

According to previous studies, it has been found that they had considered just only NCM mutual fund and Citizen Unit Scheme. But now they have matured. There are eleven mutual fund schemes and two are becoming ready to enter in market. So, detailed and comparative study has not been conducted. The purpose of this study is to assess mutual fund scheme in Nepalese financial market and their problems and prospects by using statistical and financial tools with three year data. So this study will be fruitful to fund operator, regulatory body, investors and interested persons. It will be useful for policy making perspective, choice of investment, to get knowledge as well as matter of further research.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter is mainly concerned with the procedures that have been used to collect and analyze data for study. The chapter deals how the study was carried out in order to fulfill the objectives of study. As most of the data are quantitative, the research is based on scientific models.

#### **3.2 Research design**

Research design is master plan, structure and strategy of investigation conceived so as to obtain answer to research question. It serves as a framework for study, guiding the collection and analysis of data, the research instrument to be utilized, and the sampling plan to be followed.

The study design for the study is mostly descriptive and aimed at describing the state of affairs as they exist. A descriptive study has been undertaken in order to ascertain results. This research design describes the phenomena as they exist. Such design involves systematic collection and presentation of data to give a clear picture of a particular situation.

Descriptive research design first accumulates the facts and information to be analyzed and then organizes the raw data. This involves gathering data that describes events and then organizes, tabulates, depicts, and describes the data collection. Descriptive research is fact-finding operation searching for adequate information. It is type of study which is generally conducted to assess the opinions, behaviors or characteristics of a given population and to describe the situation and events occurring at present.

Variables picked for performance analysis of mutual fund are Holding Period Return(HPR), Net Asset Value (NAV) per share market return on NEPSE index, dividend per share etc. The preliminary survey of literature and information provide following solid foundation for developing a theoretical framework:

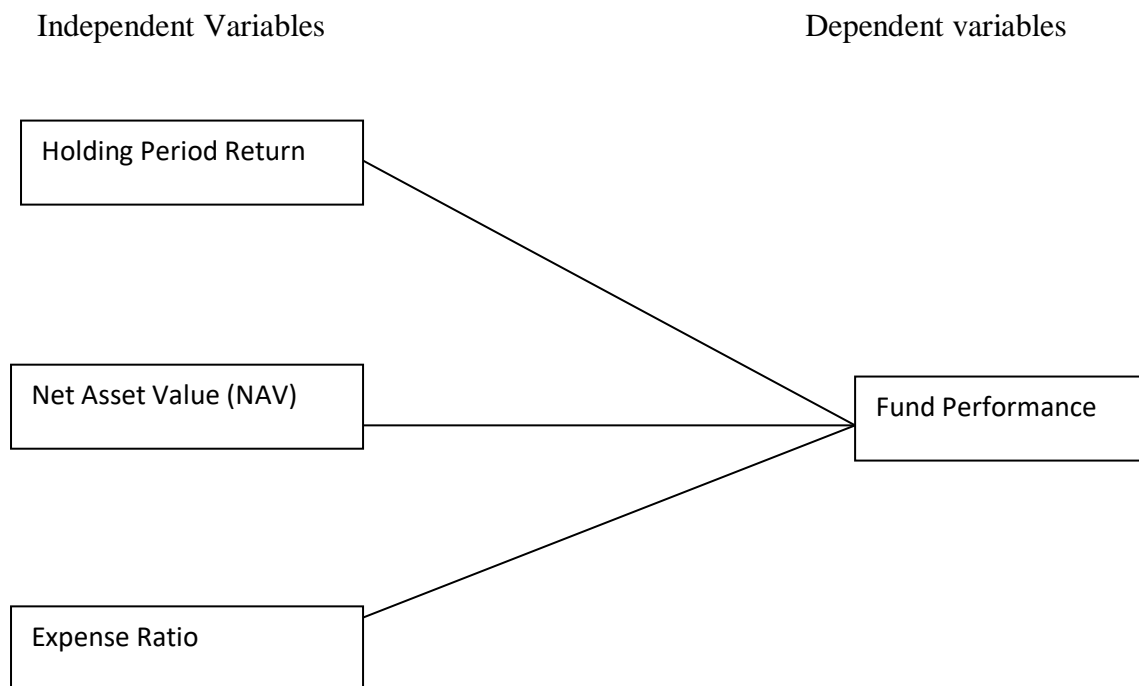


Figure 3.1: Schematic diagram of theoretical framework

To achieve the objectives of study, descriptive and analytical research design has been used. A descriptive research design refers to the process of describing what current situation or attributes exist and explain why certain attributes exist.

### 3.3 population and sample

Population is aggregative or totality of statistical data forming a subject of investigation. At present there are 11 mutual funds schemes are working in Nepal. The population data for this study comprises all 11 mutual funds approved by SEBON. NCM mutual fund, NIDC capital market mutual fund and Nabil Balance Fund have been matured.

Study of population within limitation of time and resource is not possible. So, some portions of population that represent the characteristics of universe are selected as sample Here finite population of mutual funds in Nepal is 11.

A sample is a portion of population which is examined with a view to estimate the characteristics of population. The sample consists of four selected mutual funds. The sample size four is determined on the notion that at least one third of population



should be studied. Simple random sampling method has been used while selecting samples. In this method, each and every units of population has equal chance of being selected from population as a sample. Thus it is a method of selecting 'n' units out of a population of size 'N' units by giving equal probability to all units.

The selected samples for the study are as follows:-

- i) Laxmi Value Fund
- ii) Siddartha Equity Oriented Scheme
- iii) NIBL Samridhi Fund
- iv) NMB Sulav Fund

The above sample funds are selected by using simple random sampling method. It is a probability sampling method which provides random selection. Under this technique, all items of population have equal chance to be selected as sample. Thus the sampling frame for the study comprises all 11 mutual funds approved by SEBON. Random sampling is necessary when researcher wants to generalize from sample to the population. The required four samples are selected randomly without any bias from researcher. A brief description of sample mutual funds is presented as below:

#### Laxmi Value Fund (LVF)

LVF is first mutual fund scheme sponsored by Laxmi Bank and managed by Laxmi capital ltd. With original fund of Rs. 500 million and maturity of 5 years, it has started March, 2015. It has saved 120 million in fixed deposit and has invested 396.966 million in listed stocks.

#### Siddartha Equity Oriented Scheme (SEOS)

After successful management of SIGS, Siddartha capital came with another close ended mutual fund schemes. This scheme has maturity of 5 years. The fund started with initial fund pool of Rs. 1000 million and has reached total investment of 1621.437 million at the end of 2074 B.S.

#### NIBL Samridhi Fund (NIBLSF)

It is sponsored by Nepal Investment Bank Ltd and managed by NIBL Capital Limited. It has a maturity of 7 years and a fund size of Rs. 1000 million. With an investment of Rs. 660.876 Million in stocks of listed companies and Rs. 250 Million in fixed deposits, it has a total investment of Rs. 1329.346 Million at the end of 2074 B.S.

#### NMB Sulav Fund (NMBSF)

It is sponsored by NMB Bank and managed by NMB Capital Ltd. It has started with an initial fund of 500 million and has an original maturity of 5 years. With an investment of Rs. 396.966 million in listed stocks and Rs. 120 million in fixed deposits, its total investment is Rs. 660.561 million till the end of 2074 B.S.

### **3.4 Sources of data**

The study is based on both primary and secondary data. Primary data have been gathered from respondents within Kathmandu valley. Secondary source of data will be periodic published financial reports of concerned mutual funds. Data are collected from browsing official websites of concerned mutual fund managers, NEPSE, and SEBON. As stated earlier, the backbone of this study is data collected from secondary sources. All the data used in analysis are secondary. Hence, justification of this analysis fully depends upon reliability of secondary data. The major sources of data are as follows;

- Periodic reports of sample mutual funds
- Finance journal available in TU central library
- Previous study thesis
- Economic survey conducted by ministry of finance
- Websites of NEPSE and SEBON.

### **3.5 Data Collection instrument**

Both primary and secondary source of information has been used for the study. Primary data has been collected using carefully designed questionnaires. The questionnaires were distributed to respondents. Respondents were finance lecturers, stock brokers, general investors and senior students who have basic knowledge about mutual fund industry.

The instrument for primary data collection is questionnaire. This instrument is placed in appendix of this report. Little demographic information of respondents is also gathered. The demographic variables and antecedents items were designed in nominal scale. The summary of respondents is presented as below;

Table 3.1 List of respondents

Types of respondents	No. of participation	No. of respondents	% of respondents
Finance lecturers	30	21	33.33
General investors	25	12	19.05
Stock brokers	15	8	12.70
Senior students	30	22	34.92
Total	100	63	100

### 3.6 Method of analyzing data

After collection of research data, an analysis of those data and their interpretation of results are required. The facts and figures collected are to be processed with a view to reduce them to the manageable proportions. Once such processing is done, the statistical treatment and meaningful interpretation is needed to reach conclusions. Thus, data processing comprises editing, coding, categorizing and tabulation.

In order to make the study more precise, the data are presented in tabular form. Charts and diagrams are used to clarify and verify data presented. Various financial and statistical tools are used to evaluate the performance. Efforts have been made to make data presentation and analysis more simple and easy to understand.

### 3.7 Data analysis tools

The collected raw data has first been classified and presented in tabular form. The data then have been analyzed by applying various financial and statistical tools. Besides these, some graphical presentation tools are also used. Collected data have been analyzed by using financial ratios, descriptive statistics. The data employed in this study consist of Net Asset Value (NAVs) of mutual funds. The study utilized

NEPSE as the benchmark portfolio. Similarly, risk free rate of return is adopted from 91 days treasury bills. Both financial and statistical tools are used while analyzing the data.

### 3.7.1 Financial tools

Following financial tools have been used to evaluate mutual fund performance:-

a. Expected or Average rate of return( $\epsilon R$ )

It is expected return to be received from the fund. It is found out taking sum of previous returns dividing it by no. of periods. It is defined as;

$$\epsilon R = \frac{\sum R}{N}$$

Where,

$\epsilon R$  = expected return

$\sum R$  = sum of returns

$N$  = No. of periods.

b. Holding period return (HPR)

HPR is rate of return on an asset or portfolio over the whole period during which it was held. This tool helps to find rate of return that an investor could earn from investment on fund. It is minimum rate of return that the fund must earn. It is defined as;

$$HPR = \frac{NAV_1 - NAV_0}{NAV_0}$$

Where,

HPR = Holding period

$NAV_0$  = NAV at beginning period

$NAV_1$  = NAV at ending period

### 3.7.2 Statistical tools

The statistical tools are indispensable measure of evaluating research data. Some of the statistical tools used in this study are;

a. Standard deviation

It is defined as positive square root of mean of square of deviations taken from arithmetic mean. It measures the variability of distribution of return around its mean. It is used to find total risk of fund. It is defined as;

$$\sigma = \sqrt{\frac{\sum(R-R)^2}{N-1}}$$

Where,

$\Sigma(R-R^2)$  = sum of deviation f returns

N = Number of periods

$\sigma$  = standard deviation

b. Beta ( $\beta$ )

Beta coefficient measures non-diversifiable i.e. systematic risk. It is an index of degree of movement of an asset's return in response to a change in market return. Beta of market return is always 1. If an asset's beta more than 1, it means that returns of asset are more volatile than market return. It is defined as;

$$\beta = \frac{COV(R_i, R_m)}{\sigma_m^2}$$

Where,

$\beta$  = Beta coefficient

COV ( $R_i$ ,  $R_m$ ) = covariance between asset's return and market return

$\sigma_m^2$  = market variance

c) Correlation coefficient

Correlation is statistical measure which is used to study the degree of relationship between two or more than two variables. Here, simple correlation between mutual fund return and market return has been calculated. It defines degree and direction of movement between two assets. This statistical tool helps to find out whether there exist any correlation between the fund's return and market return

# **CHAPTER-IV**

## **RESULTS**

### **4.1 Introduction**

This is the major part of study and presents the data and information collected from primary and secondary sources. It includes presentation and analysis of data, models applied to analyze the data, various calculations made and their results.

From the descriptive and analytical analysis of primary and secondary data, answers to research question are found. In this chapter the relevant major findings of study have been presented. Major finding of study have been presented as below;

- A. Finding from analysis of primary data
- B. Findings from analysis of secondary data

### **4.2 Presentation and analysis of primary data**

In this section primary data are analyzed. Primary data are collected through survey by using questionnaire method. The majority of respondents were investors and senior students and finance lecturers as well. Most investors invest in mutual fund without proper knowledge and they do not invest as stock brokers' advice. Majority of investors concern cash dividend only. However, financial executives, finance lecturers and some investors found well educated and familiar about mutual fund.

The survey results that are found are presented in the study without any alteration. This tries to show some realistic picture of mutual fund industry. The major findings of primary data analysis are described as below;

#### **4.2.1 Present status of mutual fund**

Main purpose of this question was to get answer about concurrent status of mutual funds in Nepal. The viewpoints of respondents are presented as below;

Table 4.1 present condition of mutual fund

states of nature	No. of respondents	%of respondents
Extremely Good	1	2
Good	50	79
Undecided	8	13
Bad	2	3
Extremely Bad	2	3
Total	63	100

Source: research survey from questionnaire 1

Table 4.1 shows that present condition of mutual fund in Nepalese financial market. One respondent out of 63 believes that it is in extremely good condition. 50 respondents believe that present status of mutual fund is good. 8 were undecided about it. Two respondents said the present status of mutual fund is bad and remaining two said it is extremely bad.

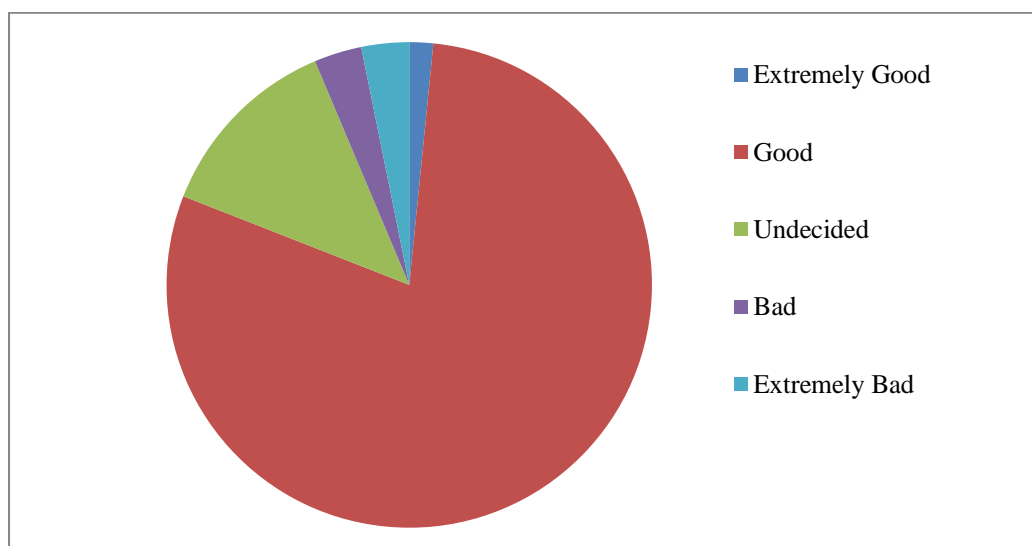


Figure 4.1: present status of mutual fund

Figure 4.1 shows that present condition of mutual fund in Nepalese financial market is in good condition. 81% of respondents believe that it is in good condition and 13% are

undecided about it. Similarly, 3% of respondents feel that it was in bad condition. Likewise 2% of respondent said that it was in extremely bad condition remaining 1% told extremely well.

#### 4.2.2 Contribution mutual fund in development of capital market

The purpose of this question is to show contribution of mutual fund companies in Nepalese capital market though it is in growing phase. Respondents were asked how they feel about contribution of mutual fund. They exemplified the importance of mutual funds in development of capital market.

Table4.2 Contribution mutual fund in development of capital market

state of nature	No. of respondents	% of respondent
very well	24	38
somewhat well	30	48
undecided	0	0
not at all	7	13
extremely poor	2	3
Total	63	100

*Source: Research survey from questionnaire 2*

Table 4.2 shows most of respondents opine that funds can play vital role for development of capital market in Nepal. 25 respondents said that mutual fund can contribute very much for development of capital market and other 30 respondents followed by somewhat contribution. Out of 63 respondents, 2 respondents opined poor contribution and rest 7 respondents viewed that mutual fund will not contribute for development of capital market. Nobody is undecided about it.



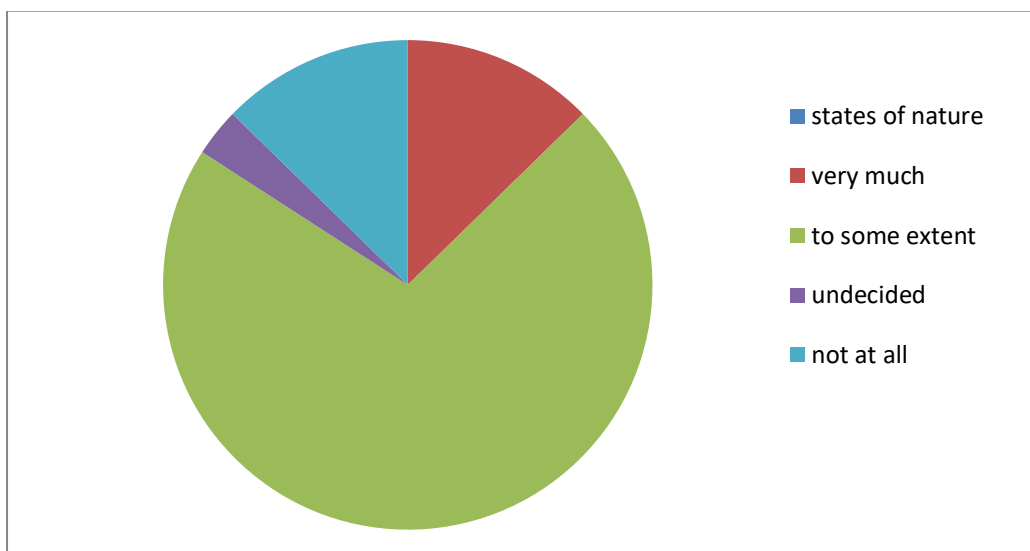


Figure 4.2: Contribution mutual fund in development of capital market

Figure 4.2 show that mutual fund can substantially contribute to development of capital market in Nepal. Only 2% of respondents said that mutual fund could not contribute in development of capital market and other 8% opined poor contribution. About 90% respondents think its growth contribute in development of capital market.

#### 4.2.3 Level of risk in investing in current mutual funds

This question has been forwarded to know the risk level in investing in current mutual fund schemes though exact risk rating is very difficult.

Table4.3 Level of risk in investing in current mutual funds

states of nature	No. of respondents	% of respondents
very much risky	8	13
to some extent	45	71
undecided	2	3
not at all	8	13
extremely poor	0	0
Total	63	100

Source: research survey from questionnaire 3

Table 4.3 shows that it is not too risky in investing in mutual funds. 45 of respondents believe that investing in mutual fund is slightly moderate risky than market. Out of 63 respondents, 3 were undecided about it and 8 respondents said that it is less risky than market. And 8 respondents said that investing in mutual fund is very much risky than market.

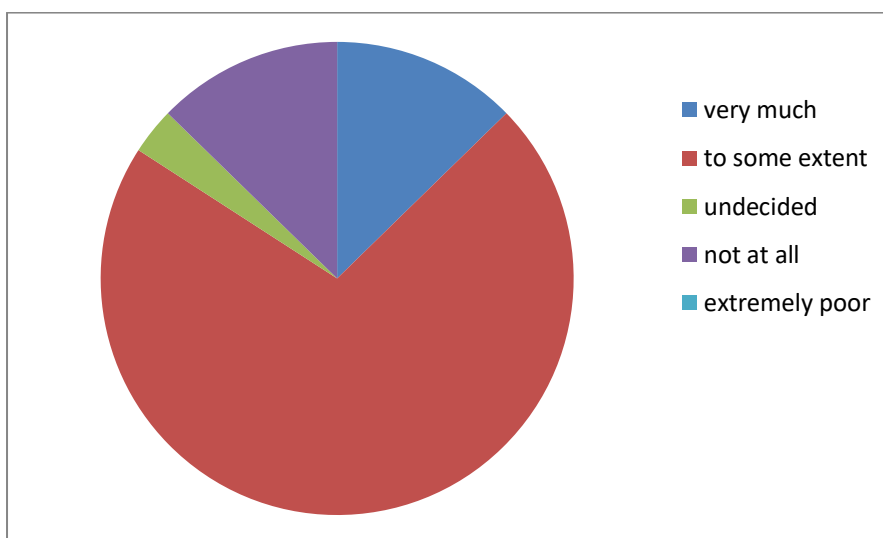


Figure 4.3: Level of risk in investing in mutual funds

Figure 4.3 indicates that level of risk is slightly moderate than market. 71% respondents found it is less risky than market and even less risky said by 13% of respondents. Likewise, 3% of respondents are undecided about it and remaining 13% respondents said it is more riskier to invest in mutual fund rather than market.

#### 4.2.4 Performance of mutual funds in Nepalese capital market

Though by use of secondary data, performance measurement of mutual fund has been done, here, the purpose of this question is to explore respondents' view. It is tabulated as below;

Table 4.4 Performance of mutual funds in Nepalese capital market

states of nature	No. of respondents	% of respondents
Extremely Good	8	13
Good	31	49
Undecided	5	8
Bad	15	24
Extremely Poor	4	6
Total	63	100

*Source: research survey from question 4*

From table 4.4 it is found that 31 respondents said performance of mutual funds is good and 8 respondents told the performance of mutual fund is extremely well. While, 5 respondents are undecided about, 15 respondents said performance of mutual funds is bad and remaining 4 respondents opine very bad performance.

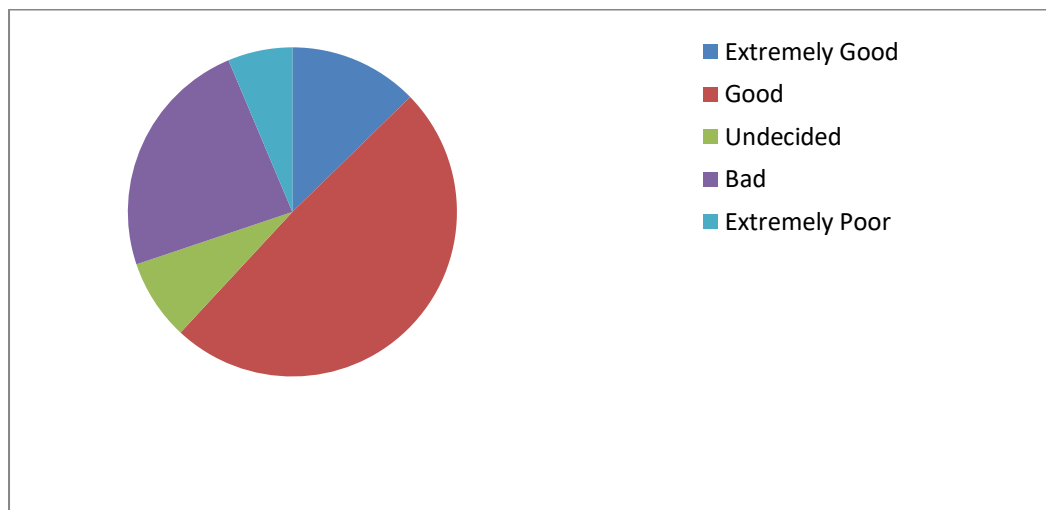


Figure 4.4: Performance of mutual funds in Nepalese capital market

Figure 4.4 shows nearly half of respondents (49%) are satisfied from the financial performance of mutual funds. 8% of respondents are undecided about it. Other 24% respondents rate their performance as poor and remaining 6% rate very poor. As

majority of respondent rank good performance, it may be one of positive signs in mutual fund industry.

#### 4.2.5 Managerial skill on current mutual fund

This question is asked to obtain respondents' viewpoints regarding managerial skill of fund managers. The opinions of respondents are presented as below;

Table 4.5 managerial skills of current mutual funds

states of nature	No. of respondents	% of respondents
Extremely Good	5	8
Good	29	46
Undecided	1	1
weak	19	31
Extremely Weak	9	14
Total	63	100

*Source: Research survey from questionnaire 5*

Table 4.5 shows respondents' viewpoints regarding managerial skill of fund managers of mutual funds. According to survey, it is found that 5 respondents said managerial skill of fund manager is extremely good. 29 respondents are in favour of good and one is undecided about it. While, 19 respondents said weak managerial skill of fund manager, 9 respondents said extremely weak position of managerial skill of fund manager.

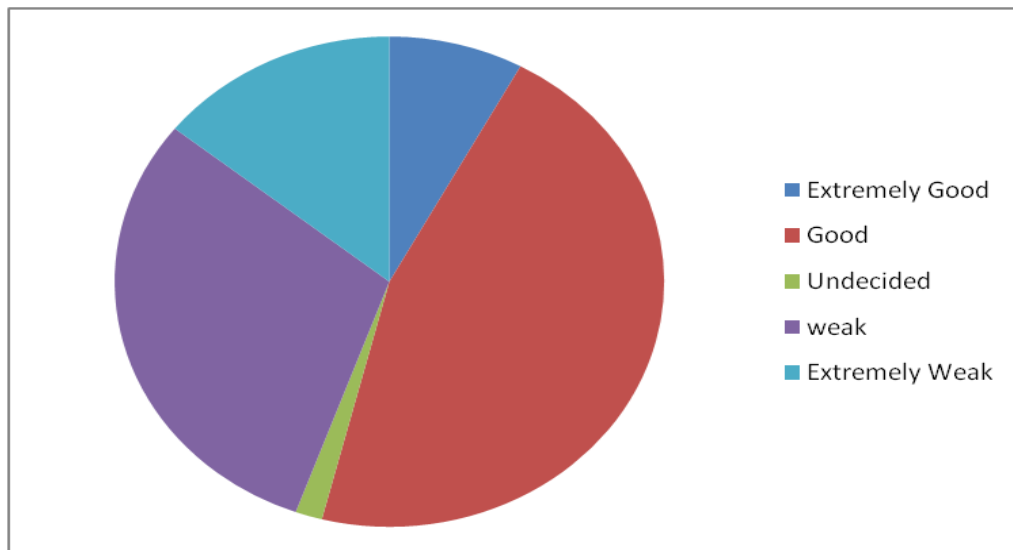


Figure 4.5: managerial skill of fund manager

Figure 4.5 shows most of respondents are satisfied from managerial skills of fund manager. 8% of respondents viewed extreme skill of fund manager and 46% of respondents are satisfied from managerial skill of fund manager. Other 31% of respondents are in favor of weak managerial skill and remaining 14% respondents are in favor of extremely weak managerial skill of fund manager.

### 4.3 Analysis of secondary data

In this section all secondary data which are obtained from various secondary sources are analyzed. Specified financial and statistical tools are applied in order to make raw data meaningful. In order to analyze mutual fund data with Sharpe, Treynor and Jensen measure, the monthly NAVs and other index data are converted into annualized data. Different financial models as per methodology are used. Here the risk free rate is taken as per Treasury bill rate and calculated the return on base rate. Calculation of risk free rate has been placed in appendix of this thesis

#### 4.3.1 Calculation of Holding Period Return (HPR)

We have, 
$$\text{HPR} = \frac{\text{Ending NAV} - \text{Beginning NAV}}{\text{Beginning NAV}}$$

## LVF (1)

2072	2073	2074
$\frac{1.84 - 11.97}{11.97}$ = -0.0944 or -9.44%	$\frac{13.46 - 12.93}{12.93}$ = 0.0409 or 4.09%	$\frac{15.38 - 11.02}{11.02}$ = 0.3956 or 39.56%

## SEOS (2)

2072	2073	2074
$\frac{11.54 - 16.053}{16.053}$ = -0.2811 or -28.11%	$\frac{15.40 - 17.64}{17.64}$ = -0.2403 or -24.03%	$\frac{18.16 - 11.56}{11.56}$ = 0.5709 or 57.09%

## NIBLSF (3)

2072	2073	2074
$\frac{11.53 - 15.46}{15.46}$ = -0.2542 or -25.42%	$\frac{15.98 - 14.15}{14.15}$ = 0.1293 or 12.93%	$\frac{13.40 - 9.80}{9.80}$ = 0.3673 or 36.73%

## NMBSF (4)

2072	2073	2074
$\frac{14.25 - 13.76}{13.76}$ 0.0356 or 3.56%	$\frac{17.24 - 16.02}{16.02}$ = 0.0761 or 7.61%	$\frac{18.25 - 17.19}{17.19}$ = 0.0616 or 6.16%

### 4.3.2 Calculation of Expense Ratio

$$\text{Expense Ratio} = \frac{\text{Operating Expenses}}{\text{Net Asset Value}} \times 100$$

#### LVF (1)

2072	2073	2074
$\frac{8.997}{544.712} \times 100$ $= 1.65\%$	$\frac{9.613}{673.977} \times 100$ $= 1.43\%$	$\frac{8.756}{629.686} \times 100$ $= 1.39\%$

#### SEOS (2)

2072	2073	2074
$\frac{21.901}{1238.212} \times 100$ $= 1.74\%$	$\frac{31.327}{1248.188} \times$ $100$ $= 2.5\%$	$\frac{29.02}{1279.508} \times 100$ $= 2.26\%$

#### NIBLSF (3)

2072	2073	2074
$\frac{12.479}{639.127} \times 100$ $= 1.9\%$	$\frac{24.288}{1352.058} \times 100$ $= 1.78\%$	$\frac{21.028}{1376.708} \times 100$ $= 1.53\%$

## NMBSF (4)

2072	2073	2074
$\frac{19.845}{994.543} \times 100$ $= 1.99\%$	$\frac{22.925}{1293.175} \times 100$ $= 1.77\%$	$\frac{20.835}{1311.196} \times 100$ $= 1.58\%$

4.3.3 Calculation of Market Rate of Return ( $R_m$ )

Table 4.6 Calculation of Market Rate of Return

Date	Market Index	Rate of return on index = $\frac{\text{Endingindex} - \text{Beginningindex}}{\text{Beginningindex}}$
2072/1/1	1181.36	$\frac{1390.40 - 1181.36}{1181.36}$ $= 0.1769 \text{ or } 17.69\%$
2072/12/30	1390.40	
2073/1/1	1390.40	$\frac{1470.21 - 1390.21}{1390.21}$ $= 0.0574 \text{ or } 5.74\%$
2073/12/30	1470.21	
2074/1/1	1470.21	$\frac{1488.51 - 1470.21}{1470.21}$ $= 0.0125 \text{ or } 1.25\%$
2074/12/30	1488.51	



#### 4.3.4 Calculation of Market variance

Table 4.7 Calculation of Market variance

year	Market return ( $R_m$ )	$R_m - R_m$	$(R_m - R_m)^2$
2072	17.69%	9.46	89.49
2073	5.74%	-2.49	6.20
2074	1.25%	-6.98	48.72
n= 3	$\Sigma(R_m) = 24.68$		$\Sigma(R_m - R_m)^2 = 144.41$

$$\begin{aligned} \text{Average return } (R_m) &= \frac{\Sigma(R_m)}{n} \\ &= \frac{24.68}{3} \\ &= 8.23\% \end{aligned}$$

$$\begin{aligned} \text{Standard deviation of market return } (\sigma) &= \sqrt{\frac{\Sigma(R_m - R_m)^2}{n-1}} \\ &= \sqrt{\frac{144.41}{3-1}} \\ &= 8.49\% \end{aligned}$$

$$\begin{aligned} \text{Market variance } (\sigma^2) &= 8.49^2 \\ &= 72.08 \end{aligned}$$

Hence, average return of market, standard deviation of returns and market variance are 8.23%, 8.49% and 72.08 respectively.

#### 4.3.5 Calculation of average return on fund, standard deviation of returns and covariance of returns for each sample scheme:

LVF(1)

Table 4.8 average return, standard deviation of returns and covariance of LVF

Year	Return( $R_1$ )	$(R_1 - \bar{R}_1)^2$	$(R_1 - \bar{R}_1)(R_m - \bar{R}_m)$
2072	-9.44%	131.79	11.48 X 9.46 = 108.61
2073	4.90%	1.37	1.17 X (-2.49) = -2.91
2074	14.06%	124.09	11.14 X (-6.98) = -77.75
n = 3	$\Sigma R = 8.72$	$\Sigma (R_1 - \bar{R}_1)^2 = 257.25$	$\Sigma (R_1 - \bar{R}_1)(R_m - \bar{R}_m) = 27.95$

$$\begin{aligned} \text{Average return } (R_1) &= \frac{\Sigma R_1}{n} \\ &= \frac{8.72}{3} \\ &= 0.0291 \text{ or } 2.91\% \end{aligned}$$

$$\begin{aligned} \text{Standard deviation } (\sigma) &= \sqrt{\frac{\Sigma (R_1 - \bar{R}_1)^2}{n-1}} \\ &= \sqrt{\frac{257.25}{3-1}} \\ &= 0.1658 \text{ or } 16.58\% \end{aligned}$$

$$\begin{aligned} \text{Covariance } (R_1, R_m) &= \frac{\Sigma (R_1 - \bar{R}_1)(R_m - \bar{R}_m)}{n-1} \\ &= \frac{27.95}{3-1} \end{aligned}$$

$$= 43.64$$

Thus average return of LVF is 2.91%. This indicates in an average, the fund generates 2.91% return from its portfolio. Standard deviation of returns of LVF, on the other hand, is 16.58%. It means the fund has total risk of 16.58%.

SEOS (2)

Table4.9 average return, standard deviation of returns and covariance of SEOS

Year	Return( $R_2$ )	$(R_2 - \bar{R}_2)^2$	$(R_2 - R_2)(R_m - \bar{R}_m)$
2072	48.42%	384.55	19.61 X 9.46 = 271.029
2073	4.37%	597.31	-24.44 X (-2.49) = -12.076
2074	33.65%	23.42	4.84 X (-6.98) = 46.85
n=3	$\Sigma R = 86.44$	$\Sigma(R_2 - \bar{R}_2)^2 = 1004$	$\Sigma(R_2 - R_2)(R_m - \bar{R}_m) = 90.88$

$$\begin{aligned} \text{Average return } (R_3) &= \frac{\Sigma R_2}{n} \\ &= \frac{86.44}{3} \\ &= 28.81\% \end{aligned}$$

$$\begin{aligned} \text{Standard Deviation of Returns } (\sigma) &= \sqrt{\frac{\Sigma(R_2 - R_2)}{n-1}} \\ &= \sqrt{\frac{1004}{3-1}} \\ &= 22.44\% \end{aligned}$$

$$\text{Covariance } (R_2, R_m) = \frac{\Sigma(R_2 - R_2)(R_m - \bar{R}_m)}{n-1}$$

$$= \frac{90.88}{3-1}$$

$$= 45.44$$

Thus average return of SEOS is 28.81%. this indicates in an average the fund generates 28.81% return from its portfolio. Standard deviation of returns of SEOS, on the other hand, is 22.44%. It means the fund has total risk of 22.44%.

NIBLSF (3)

Table4.10 average return, standard deviation of returns and covariance of NIBLSF

Year	Return(R)	$(R_3 - \bar{R}_3)^2$	$(R_3 - \bar{R}_3)^2 (R_m - \bar{R}_m)$
2072	36.73%	820.825	28.65 X 9.46 = 271.029
2073	12.93%	23.52	4.85 X (-2.49) = -12.076
2074	-25.42%	178.89	28.65 X (-6.98) = -233.83
n= 3	$\Sigma R = 24.24\%$	$\Sigma(R_3 - \bar{R}_3)^2 = 1023.237$	$\Sigma(R_3 - \bar{R}_3)^2 (R_m - \bar{R}_m) = (25.123)$

$$\text{Average return } (R_3) = \frac{\Sigma (R)}{n}$$

$$= \frac{24.24}{3}$$

$$= 8.08\%$$

$$\text{Standard Deviation of returns } (\sigma) = \sqrt{\frac{\Sigma(R_2 - R_2)}{n-1}}$$

$$= \sqrt{\frac{1023.237}{3-1}}$$

$$= 22.62\%$$

$$\text{Covariance } (R_2, R_m) = \frac{\Sigma(R_3 - \bar{R}_3)2(R_m - \bar{R}_m)}{n-1}$$

$$= \frac{25.123}{3-1}$$

$$= 12.56$$

Thus average return of NIBLSF is 8.08 %. This indicates in an average, the fund generates 8.08 % return from its portfolio. Standard deviation of returns of NIBLSF, on the other hand, is 22.62 %. It means the fund has total risk of 22.62 %.

NMBSF (4)

Table4.11 average return, standard deviation of returns and covariance of NMBSF

Year	Return(R)	$(R_4 - \bar{R}_4)^2$	$(R_4 - \bar{R}_4)(R_m - \bar{R}_m)$
2072	18.33%	10.82	3.29 X 9.46 = 31.1234
2073	16.69%	2.72	1.65 X (-2.49) = -4.1085
2074	10.09%	24.50	-4.95 X (-6.98) = 34.531
n= 3	$\Sigma R = 45.11$	$\Sigma(R_4 - \bar{R}_4)^2 = 38.04$	$\Sigma(R_4 - \bar{R}_4)(R_m - \bar{R}_m) = 61.5659$

$$\bar{R}_4 = \frac{\Sigma R}{n}$$

$$= \frac{45.11}{3}$$

$$= 15.04\%$$

$$\text{Standard Deviation of returns } (\sigma) = \sqrt{\frac{\Sigma(R_2 - \bar{R}_2)^2}{n-1}}$$

$$= \sqrt{\frac{38.04}{3-1}}$$

$$= 4.36\%$$

Thus, average return of NMBSF is 15.04 %. This indicates in an average, the fund generates 15.04 % return from its portfolio. Standard deviation of returns of NMBSF, on the other hand, is 4.36 %. It means the fund has total risk of 4.36 %.

#### 4.3.6 Calculation of beta of each scheme

We have,

$$\text{Beta } (\beta) = \frac{\text{Covariance of returns between fund and market}(\text{COVR}, \bar{R}_m)}{\text{Market Variance } (\sigma^2)}$$

Table 4.12 Calculation of beta of each scheme

LVF	SEOS	NIBLSF	NMBSF
$\beta_1 = \frac{13.97}{72.08}$ $= 0.19$	$\beta_2 = \frac{45.44}{72.08}$ $= 0.63$	$\beta_2 = \frac{12.56}{72.08}$ $= 0.17$	$\beta_4 = \frac{32.78}{72.08}$ $= 0.43$

Beta is measure of systematic risk. Systematic risk refers to the non-diversifiable risk. Fund manager cannot mitigate the systematic risk. Beta of LVF, SEOS, NIBLSF and NMBSF are 0.19, 0.63, 0.17 and 0.43 respectively. Among them beta of SEOS is highest (0.63).

#### 4.3.7 Determination of Sharpe Index

We have,

$$S_i = \frac{R - R_f}{\sigma}$$

Table 4.13 Determination of Sharpe ratio

LVF	SEOS	NIBLSF	NMBSF
$S_i = \frac{2.91-4.05}{9.17}$ $= 0.12$	$S_i = \frac{28.81-4.05}{22.40}$ $= 1.12$	$S_i = \frac{8.08-4.05}{22.62}$ $= 0.18$	$S_i = \frac{15.04-4.05}{4.36}$ $= 2.6$

Sharpe ratio is return generated over the risk free rate, per unit of risk. Risk in this case is taken to be the fund's standard deviation.

#### 4.3.8 Determination of Treynor Index

We have,

$$T_i = \frac{R-R_f}{\beta}$$

Table 4.14 Determination of Treynor ratio

LVF	SEOS	NIBLSF	NMBSF
$T_i = \frac{2.91-4.05}{0.19}$ $= -6.70$	$T_i T_i = \frac{28.81-4.05}{0.63}$ $= 39.30$	$T_i = \frac{8.08-4.05}{0.17}$ $= 23.70$	$T_i = \frac{15.04-4.05}{0.43}$ $= 25.55$

#### 4.3.9 Determination of Jensen Index

We have,

$$J_i = R - [R_f + \beta(R_m - R_f)]$$

Table 4.15 Determination of Jensen ratio

LVF	SEOS	NIBLSF	NMBSF
$J_i = 2.91 - [4.05 + 0.19(8.23 - 4.05)]$ $= 2.91 - 4.84$ $= -1.93$	$J_i = 28.81 - [4.05 + 0.63(8.23 - 4.05)]$ $= 28.81 - 6.68$ $= 22.13$	$J_i = 8.08 - [4.05 + 0.17(8.23 - 4.05)]$ $= 8.08 - 4.76$ $= 3.32$	$J_i = 15.04 - [4.05 + 0.43(8.23 - 4.05)]$ $= 15.04 - 5.85$ $= 9.19$

Jensen index measures the portfolio performance on the basis of gap between actual return and required rate of return. Here, Jensen index of LVF is -1.93. It means LVF's actual return is lower than required return. Likewise,  $J_i$  of SEOS, NIBLSF and NMBSF are 22.13, 3.32 and 9.55 respectively. These three funds are generating higher premium return than their required rate of return.

#### 4.3.10 Determination of % investment of each scheme in various assets

Table 4.16 of % investment of each scheme in various assets

LVF	LVF		SEOS	
	Amount (in million Rs.)	% of investment	Amount (in million Rs.)	% of investment
listed shares	396.97	60.9	796.13	49.1
IPO/FPO	12.699	1.82	268.2	16.54
Debenture	0		0	
Fixed deposits	120	18.18	250	15.42
Other assets	130.9	19.1	307.11	18.94
Total	660.56	100	1621.4	100



NIBLSF		NMBSF	
Amount (in million Rs.)	% of investment	Amount (in million Rs.)	% of investment
660.88	49.7	590.8	53.6
68.544	5.16	39.975	3.63
28.21	2.11	14	1.27
220	16.6	125	11.4
351.72	26.5	331.6	30.1
1329.3	100	1101.4	100

Table 4.16 shows the investment pattern of mutual funds. Listed common stocks, IPO and FPO, debentures, fixed deposits and other assets are the financial instruments that the funds have placed their funds. All the funds have invested their large part of funds in common stocks and bank deposits respectively.

#### **4.3.11 calculation coefficient of correlation between fund returns and market return**

Coefficient of correlation defines the degree and direction of movement between two assets. This statistical tool helps to find out whether there exist any correlation between the fund's return and market return (NEPSE). Here fund return is denoted by 'X' and market return is denoted by 'Y'. Actual mean method is used to calculate correlation coefficient.

We have,

$$\text{Coefficient of correlation (R)} = \frac{\Sigma xy}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}}$$

## LVF

Table4.17 Correlation coefficient between returns of LVF and NEPSE

X	y	X <sup>2</sup>	Y <sup>2</sup>	xy
-20.84	9.43	434.31	88.92	-196.52
-7.31	-2.52	53.44	6.35	18.42
28.16	-7.01	792.98	49.14	-197.4
		$\Sigma X^2 = 1280.73$	$\Sigma Y^2 = 144.41$	$\Sigma xy = -375.5$

$$R = \frac{\Sigma xy}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}}$$

$$R = \frac{-375.5}{\sqrt{1280.73} \sqrt{144.41}}$$

$$R = \frac{-375.5}{430.07}$$

$$R = -0.87$$

Since, correlation coefficient (R) is -0.87, there exist high degree of negative correlation between returns of Laxmi Value Fund and NEPSE index. It means returns of Laxmi Value Fund and NEPSE moves toward opposite direction.

## SEOS

Table4.18 Correlation coefficient between returns of SEOS and market

X	y	X <sup>2</sup>	Y <sup>2</sup>	xy
19.61	9.43	384.55	88.92	184.92
23.74	-2.52	536.58	6.35	-59.82
4.84	-7.01	23.43	49.14	33.93
		$\Sigma X^2 = 944.56$	$\Sigma Y^2 = 144.4$	$\Sigma xy = 159.03$

$$R = \frac{\Sigma xy}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}}$$

$$R = \frac{159.03}{\sqrt{944.56} \sqrt{144.41}}$$

$$R = \frac{159.03}{369.37}$$

$$R = 0.43$$

Since, correlation coefficient (R) is 0.43, there exist low degree of positive correlation between returns of Siddhartha Equity Oriented Scheme and NEPSE index. It means returns of Siddhartha Equity Oriented Scheme and NEPSE moves toward relatively in similar direction.

#### NIBLSF

Table4.19 Correlation coefficient between returns of NIBLSF and market

X	Y	X <sup>2</sup>	Y <sup>2</sup>	xy
28.65	9.43	820.82	88.92	270.17
4.85	-2.52	23.52	6.35	-12.22
-33.5	-7.01	1122.25	49.14	234.83
		$\Sigma X^2 = 1966.59$	$\Sigma Y^2 = 144.41$	$\Sigma xy = 492.78$

$$R = \frac{\Sigma xy}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}}$$

$$R = \frac{442.78}{\sqrt{1966.59} \sqrt{144.41}}$$

$$R = \frac{442.78}{533.04}$$

$$R = 0.83$$

Since, correlation coefficient (R) is 0.83, there exist high degree of positive correlation between returns of NIBL Samridi Fund and NEPSE index. It means returns of NIBL Samridi Fund and NEPSE moves toward in similar direction.

#### NMBSF

Table4.20 calculation of correlation coefficient between returns of LVF and NEPSE

x	y	x	y	xy
3.29	9.43	10.82	88.92	31.02
1.65	-2.52	2.72	6.35	-4.16
-4.95	-7.01	24.5	49.14	34.7
		$\Sigma X^2 = 38.04$	$\Sigma Y^2 = 144.41$	$\Sigma xy = 61.56$

$$R = \frac{\Sigma xy}{\sqrt{\Sigma X^2} \sqrt{\Sigma Y^2}}$$

$$R = \frac{442.78}{\sqrt{38.04} \sqrt{144.41}}$$

$$R = \frac{61.56}{74.13}$$

$$R = 0.83$$

Since, correlation coefficient (R) is 0.83, there exist high degree of positive correlation between returns of NMB Sulav Fund and NEPSE index. It means returns of NMB Sulav Fund and NEPSE moves toward in similar direction.

## **CHAPTER-V**

### **SUMMARY, CONCLUSION AND IMPLICATIONS**

This chapter discusses about summary of results, conclusions and recommendations of the study. The chapter is divided into three parts. The first enumerates summary of data analysis, the second puts forth major findings and conclusions of study and final section offers some suggestions. In this chapter, a brief summary of findings is presented. Conclusions are drawn from findings and few suggestions from researcher are also presented

#### **5.1 Summary of Findings**

During the study period various literatures concerned with subject matter have been reviewed for inception of mutual funds concepts, types, advantages and disadvantages, key decision variables, NAV and historical development in Nepal. In order to satisfy objectives of research descriptive as well as analytical research design has been applied.

Mutual funds are financial intermediaries who collect saving of small investors and invest the proceeds in large and well diversified portfolio. There is no long history of mutual fund in Nepal and only 11 schemes are currently listed and traded in NEPSE. These schemes are run by collecting 1300 millions of rupees and minimum mutual fund size is Rs. 500 millions while maximum maturity period is 7 years, minimum maturity period is 5 years. Per unit par value of all schemes is Rs.10 each. Among 11 schemes, a market price of six mutual funds is higher than par value and the market price of remaining 5 schemes is lower than par value.

Research question 1 is about present status of mutual funds in Nepal. The present financial status of mutual fund is moderate in Nepalese financial market. As it was found by primary data, most respondents said it is in good condition. However, most of investors do not have adequate knowledge about features and operation of mutual funds. It is also found that Nepalese capital market has not grown adequate to sustain mutual fund. It has yet to struggle.

Although small in size, mutual funds have contributed toward broadening the base of country's capital market and provided relatively high and secure returns. Despite high prospects of mobilizing saving and providing investment opportunities to small savers, one major factor as to why mutual funds have not emerged as a preferred saving mode is lack of availability of quality shares and underdeveloped state of capital market.

Table 5.1 Performance indicators

Scheme	Sharpe Ratio	Treynor Ratio	Jensen measure
LVF	-0.12	-6.70	-1.93
SEOS	1.12	39.30	22.13
NIBLSF	0.18	23.70	3.22
NMBSF	2.6	25.55	9.19

As stated earlier, three performance measurement indexes are used in the study. They are Sharpe measure, Treynor measure and Jensen measure. Sharpe ratio is return generated over the risk free rate, per unit of risk. Risk in this case is taken to be the fund's standard deviation. Most of the funds' Sharpe ratios are positive except one scheme. As per the Sharpe Measure two schemes NMBSF and SEOS outperform the market. Their Sharpe indexes are 2.6 and 1.12 respectively. NMBSF has moderate performance with Sharpe index of 0.12. LVF, on the other hand, does not perform well. Its Sharpe index is -0.12.

Trenor index is a ratio of return generated by fund above risk free rate of return to systematic risk(beta) associated with it. Trenor measure indicates that NMBSF, SEOS and NIBLSF have better performance. Their Treynor indexes are 39.30, 25.55 and 23.70 respectively. SEOS has highest Treynor index (39.30). However, LVF again has not performed well. Its Treynor index is -6.70 and it indicates inferior performance.

According to Jensen model, highest gap between actual return and required rate of return is preferable. As such, SEOS has highest gap between actual return and required return. Similarly, NMBSF and NIBLSF have this gap 9.55 and 3.32

respectively. LVF could not generate positive gap between actual return and required return.

Table 5.2 Investment portfolio

Financial assets	LVF	SEOS	NIBLSF	NMBSF
listed shares	60.90%	49.10%	49.72%	53.64%
IPO/FPO	1.82%	16.54%	5.16%	1.27%
Debenture	-	-	2.11%	3.63%
Fixed deposits	19.10%	18.94%	26.46%	30.11%
Other assets	18.18	15.42%	16.55%	11.35%

Research question 3 is about investment pattern of mutual funds. Almost mutual fund schemes have invested their large amount of fund in listed shares. LVF, SEOS, NIBLSF and NMBSF have their investment in shares are 60.9%, 49.10%, 49.72% and 53.64% respectively. Among all, LVF has highest investment in listed shares.

Investment in fixed deposits is second largest source of their investment. LVF, SEOS, NIBLSF and NMBSF invest their fund in fixed deposit 19.10%, 18.945, 26.46% and 30.115 respectively. Investment in other assets includes bank balance, money market instruments, T-bills etc. it is third largest source of their investment.

From the portfolio analysis, it is shown that mutual fund companies in Nepal are investing in equity shares, bank deposits and other assets. Most of the funds are investing in shares and in bank deposits, debentures and other assets respectively. Other assets include investment in government securities, bank balance cash in hand etc. It seems that mutual funds invest their large portion of fund in riskless fixed earning assets.

Table 5.3 Average expense ratio

LVF	1.49 %
SEOS	2.167 %
NIBLSF	1.74 %
NMBSF	1.78 5

Table 5.3 specifies three years average expense ratio of sample mutual funds. The expense ratio reflects the operating cost, excluding brokerage cost spent by fund manager to manage the fund. It is expressed as percentage of fund's net assets under management. Other things being equal, low expense ratio is beneficial to investors.

According to result, SEOS has highest expense ratio among others. Its three years average expense ratio is 2.167 %. The three year average expense ratio of LVF, NIBLSF and NMBSF are 1.49%, 1.74% and 1.78% respectively.

Table 5.4 correlation coefficient with market

	Correlation coefficient
LVF	-0.87
SEOS	0.43
NIBLSF	0.87
NMBSF	0.87

There exist negative correlation between return of LVF and NEPSE. Likewise, there exist moderate degree of positive correlation between returns of SEOS and market. On the other hand there exists high degree of positive correlation between returns of NIBLSF and NMBSF with market returns.

## 5.2 Conclusions

Mutual funds have emerged as the best in terms of variety, flexibility, diversification, liquidity as well as tax benefits. Mutual fund investors can gain access to investment opportunities that would otherwise be unavailable to them due to limited knowledge and



resources. In Nepal, mutual fund industry is at a growing phase and it is incorporating new funds every year.

Following conclusions are made from the study;

As per the Sharpe Measure, NMB Sulav Fund and Siddhartha Equity Oriented Scheme performed better than remaining two schemes.

As per the Treynor Measure, Siddhartha Equity Oriented Scheme, NMB Sulav Fund and NIBL Samridhi Fund have performed better. Laxmi value fund has under formed.

As per the Jensen Measure, Siddhartha Equity Oriented Scheme and NMB Sulav Fund have higher performance than remaining two schemes.

From analysis made in chapter four, it can be mentioned that some of the funds have performed better than the benchmark of their systematic risk but with respect to volatility most of the funds have not performed better. In the sample, funds are highly diversified. Because of their high diversification, they have reduced total risk of portfolio whereas, other mutual funds have low diversified portfolio and have more risk.

Mutual fund returns and market returns are positively correlated. It means fund returns and market returns move in similar direction.

Most of the funds are investing in shares and rest of their fund in bank deposits government securities respectively. It seems that mutual funds invest their large portion of fund in riskless fixed earning assets

There is not a strong government policy to regulate mutual fund in Nepal. On the other hand passive investors are still in majority. Lack of sufficient financial information is another challenge.

### **5.3 Recommendations**

From the study findings and analysis of data, following suggestions are made by researcher to make mutual fund industry more active:-

#### **5.3.1 Recommendations to mutual fund companies:**

- i. Mutual fund companies have to focus on innovative schemes and should develop effective portfolio strategies to attract more investors.

- ii. Investment in government securities has to be increased to contribute for national capital formation.
- iii. They are suggested to launch awareness programmes to investors. Electronic media and newspaper advertisement are effective means to create awareness about mutual funds.
- iv. Fund managers are advised to formulate optimal risky portfolio to make risk return trade-off.
- v. They should assure investor towards safety of investment and consistent return on their investment.
- vi. For expansion of depth of capital market, it is necessary to float more mutual funds since these are instruments of mobilizing saving and providing investment opportunities to small savers

### **5.3.2 Recommendations to Security board**

- i. There is lack of separate laws and policies regarding mutual fund companies. Government should formulate specific laws and policies to govern and facilitate the industry.
- ii. It is also found that there are not such incentives to investors while investing in mutual funds. So it will be better if investors are given tax benefits and incentives.
- iii. The research also found that there is not a proper check and balance system in the board. It will be better monitor working activities of fund managers regularly. Their financial statements and other performance indicators are needed to be examined in detail.
- iv. It is necessary to develop supportive environment for issuance of open-ended schemes.
- v. Development of efficient capital market is very essential to attract more funds in equity market.

### **5.3.3 Recommendations to investors**

- i. It is found that investors are not aware of mutual fund companies, they should study thoroughly the prospectus of mutual fund before investing.

- ii. Before investing in any fund, they must collect necessary data, auditor's report, and periodic reports carefully.
- iii. The major factors such as reserve fund, provision account, financial ratios, earning capacity etc. should be considered when making investment decision.
- iv. In order to get higher return on investment, investors should practice active investment strategy.

## **5.4 Implications**

Providing investment opportunities to small savers are main motto of mutual funds. Thus, this report will be beneficial for fund sponsors to launch new schemes.

This research may be useful to mutual fund companies to shape their future plans effectively.

This report will be beneficial for fund sponsor and fund manager in sense that how is actual position of mutual fund industry in financial market.

Concerned fund manager may compare own performance with that of others in the industry.

For regulatory body this report may be guideline to shape its future plans, policies and to take future actions.

This report may also be fruitful to other stakeholders to know about mutual fund industry and its role in financial system.





## Appendices

### ANNEX-1 QUESTIONNAIRE

Questionnaire No:.....

Date: 2075/ /

A Questionnaire survey on 'Financial performance analysis of mutual fund in Nepal'

Dear respondent,

I have been conducting a research on 'Financial performance analysis of mutual fund in Nepal' as a requirement for the degree of partial fulfillment of degree of MBS. In this regard, with a view to seek your opinions relating to performance of mutual funds in Nepal, I have set a list of questions that I request you to fill up.

You have been selected as a part of relatively small sample. Your reply is vital to completion of study and accuracy of findings. All individual responses will remain completely confidential.

I would be grateful if you could take a few minutes to respond to this survey. So I humbly request you to fill up the best of your knowledge. Your cooperation in this regard will be immense value for me. I assure that the responses are used for research purpose only.

I shall be highly obliged for your prompt reply as far as possible.

Thank you.

Cordially,

Rupraj Sharma

(Researcher)

Central Department of Management

T.U., Kirtipur

Respondent's

Name.....

Age.....

Gender.....

Designation.....

Organization.....

Work experience.....

Please read the statement below and circle appropriate choice that comes to your opinion:

1 What is the present condition of mutual fund in Nepalese financial market?

- a. Extremely good      b. Good      c. Undecided
- d. Bad      e. Extremely bad

2 can mutual fund substantially contribute in development of capital market ?

- a. Very well      b. Somewhat well      c. Not at all
- d. Undecided      e. Can not do

3. How is the performance of mutual fund in Nepalese financial market?

- a. Extremely good      b. Good      c. moderate
- d. Poor      e. Very poor

4. Could you indicate the level of risk in investing in current mutual fund scheme?

- a. Very much      b. to some extent      c. Undecided
- d. Not at all      e. Extremely low

5. How do you find managerial skill on present mutual fund?

- a. Very good      b. Good      c. Undecided
- d. Weak      e. Extremely weak

## ANNEX 2

Determination of Risk Free rate of return ( $R_f$ )

Treasury bills are issued by monetary authority of nation and return on treasury bill is taken as risk free. Nepal Rastra Bank, monetary authority of Nepal generally issues 91-days treasury bill(T-Bill). It is issued on highest bidding system. Let price of T-bill be Rs. 99.

The first step involves subtracting T-bill's price from 100 and dividing the amount by the price.

$$\begin{aligned} \text{i.e. Yield} &= \frac{100-99}{99} \times 100 \\ &= 1.01\% \end{aligned}$$

Next, multiply the yield by 365 and then divide by the number of days in maturity period. This gives annualized risk free rate of return ( $R_f$ ) as;

$$\begin{aligned} \text{Annualized return } (R_f) &= 1.01\% \times \frac{365}{91} \\ &= 4.05\% \end{aligned}$$

## ANNEX 3 (A)

## Operating Expenses of each scheme at the end of year 2074 B.S.

in million Rs.

Scheme	2072	2073	2074
LVF	8.977	9.613	8.456
SEOS	21.901	31.227	29.02
NIBLSF	12.479	24.288	20.028
NMBSF	19.845	22.925	21.19

*Source : monthly reports of concerned mutual funds*



## ANNEX 3 (B)

Net Assets Value of each scheme at the end of year 2074 B.S.

in million Rs.

Scheme	2072	2073	2074
LVF	544.712	673.927	629.686
SEOS	1238.212	1248.188	1279.508
NIBLSF	630.127	1352.058	1376.708
NMBSF	944.543	1293.175	1324.243

*Source : monthly reports of concerned mutual funds*

## ANNEX 4

Investment Pattern of mutual funds schemes at the end of Chaitra, 2074

in million Rs.

Financial assets	LVF	SEOS	NIBLSF	NMBSF
listed shares	396.97	796.13	660.88	590.8
IPO/FPO	12.699	268.2	68.544	39.975
Debenture	0	0	28.21	14
Fixed deposits	120	250	220	125
Other assets	130.9	307.11	351.72	331.6
Total	660.56	1621.4	1329.3	1101.4

*Source: monthly financial reports of concerned scheme*

Annex 5  
Market index

Date	Market Index
2072/1/1	1181.36
2072/12/30	1390.40
2073/1/1	1390.40
2073/12/30	1470.21
2074/1/1	1470.21
2074/12/30	1488.51

*Source website of NEPSE [www.nepalstock.com.np](http://www.nepalstock.com.np)*

## ANNEX 6

List of mutual fund schemes currently operating in Nepalese financial market

S. N.	Name of Scheme	Symbol	Fund manager	Fund Size(in million Rs.)	Maturity period(years)
1	Laxmi Value Fund	LVF 1	Laxmi capital ltd.	500	5
2	Siddhartha Equity Oriented Scheme	SEOS	Siddhartha capital ltd.	1000	5
3	NMB Sulav Fund	NMBSF	NMB capital ltd	750	7
4	NIBL Samriddhi Fund	NIBLSF	NIBL capital ltd.	1000	7
5	Global IME Samunnat Scheme	GISF 1	Global IME Capital ltd.	1000	5
6	Nabil Equity Fund	NEF	Nabil investment bank	1000	7
7	NMB Hybrid Fund	NMBHF	NMB capital ltd	1250	5
8	NIBL Pragati Fund	NIBLPF	NIBL capital ltd.	750	7
9	Laxmi Equity Fund	LEF	Laxmi capital ltd.	1250	5
10	Siddhartha Equity Fund	SEF	Siddhartha capital ltd.	1500	5
11	Sanima Equity Fund	SEF 1	Sanima Capital ltd.	1300	5
Total				11300	

Source website of SEBON, [www.sebon.gov.np](http://www.sebon.gov.np)

## References

- Ayaluru, M.P. (2016) *performance Anaslysis of Mutual Funds*.KIIT journal of management.12(1),23-25.
- Bajracharya,R.B. (2016). *Mutual Fund Performance in Nepalese mutual fund units*. Journal of Advanced Academic Research.5(2), 92-100.
- Bhole, L.M. (2003). *Financial Institution and Markets* Tata McGraw-Hill, New Delhi.
- Birm, R. J.(2003). *The Handbook of international market research techniques*. New Delhi: Kogan Page.
- Chakrabarti A. and Rungta, H. (2010). *Mutual fund industry in India: An indept look into the problem of credibility and risk*, Journal of Applied Finance, 6(2),7-10
- Cooper, D. and Schindler, P. (2008). *Business research methods*. New Delhi: Tata McGraw Hill.
- Dhakal, S. (2015) *factors affecting investors' decision in investment of mutual funds*. An unpublished MBS thesis.
- Fama, M. (1972) *Emerging market mutual fund performance*. The North American journal of Economics and finance, 22(2), 118-130.
- Goel et al. (2012). *Basic research methods: an entry to social science research*. New Delhi: Sage publication.
- Gupta, O. P. and Gupta, A. (2001) *Research methodology for performance evaluation of mutual fund*. Chandigadh: University Business School, Panjab University.
- Gupta, P. and Gupta, A. (2004) *Performance evaluation of selected Indian mutual fund schemes: An Empirical study*. The ICFIA Journal of Applied Finance, December.81-98.
- Gupta, R. (1991) *performance indicators of mutual funds*. Journal of finance and economics. 26(1), 21-22.

- Horn, V. (1996). *Financial Management and Policy*, New Delhi: Pearson Publication.
- Irwin, B.F. (1999) *Financial research techniques*, Journal of applied finance. 2(5), 61-75.
- Jensen, M. (1968). The performance of mutual funds in the period 1960-1964. The journal of Finance, 7(21), 389-416.
- Pant, P.R. (2016). *Social Science Research and Thesis Writing* (6<sup>th</sup> edition). Kathmandu: Buddha Publications pvt.ltd.
- Pradhan, M. (2017) *Mutual fund performance analysis in Nepal*: An unpublished MBS thesis.
- Sapar, N. R. and madav, R. (2015) *relationship between mutual fund capital market*. Journal of applied finance. 6(2). 135-139.
- Sharpe, W.F. (1994). *Investment*. New Delhi: Prentice Hall of India.
- Shashicant, U. (2015). *Muuttual fund performance analysis of Indian financial market*. International journal of finance.10(5), 25-33.
- Shrestha, A.M. (2010). *Mutual Fund performance analysis*;An unpublished MBS thesis.
- Shrestha, M. K. and Bhandari, D.B. (2008).*Financial Institutions and markets*. Kathmandu: Ishwari books publisher.
- Thapa, K. (2013). *Financial institutionsand markets*. Kathmandu: Asmita Books Publishers and Distributors.
- Thapa, K. and Rana, S.B. (2013).*Investment Management*. Kathmandu: Asmita Books Publishers and Distributors.
- Treynor, J. (1965). How to rate management of investment fund. Harvad Business