

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Nepal is one of the most beautiful countries due to its unique geographical position altitudinal variation rich culture and festivals. The Himalayan landscape including the highest peak Mount Everest natural beauty hills and Mountains for adventure based activities like mountaineering trekking rafting jungle safari mountain flight etc. provides strong potential for tourism in Nepal. Religious and spiritual sites like the famous Birth Place of Buddha –Lumbini and Pashupati Temple, a major Hindu shrine, are of additional values.

Tourism has been a major source of foreign currency earning and also a major contributor to our national economy. The gross earnings from tourism increased from RS 636.8 million to RS 8251 million in 1994 at current prices with an average annual growth rate of about 17 per cent. The average contribution of tourism earnings to GDP has increased from 2.3 percent in 1980 to about 4.2 percent in 1994.

However, recently, due to the political instability conflict general strikes, bandhas and some negative publicity about Nepal internationally have weakened Nepal's largely tourism-based economy. The economic decline during the last year and a half has been painful for all Nepalese. Nepal had witnessed more or less a steadily growth up to 1999. The decline in the tourist arrivals started from 1999. It has started rebounding since 2006 after the peace agreement was signed between Maoist and the Government of Nepal. The gross foreign exchange earnings in convertible currency from tourism stood at US\$ 230.6 million which represented an increase of 41.7% over the previous year 2006. (www.nepaleconomy.com)

Tourism has a great influence on the Nepalese economy but when it goes down it has an impact on other businesses. If the country's major foreign exchange earner

is to be saved then peace and security have to prevail. The best way to bring the economy back to normalcy is by practicing transparency accountability and giving due respect to internal economy. For this Nepal needs a stable government that is accountable. Once security is improved there will be remarkable growth particularly in tourism and finance.

The tourism industry directly employs about 250000 people in Nepal and one million others have jobs closely tied to the country's tourism infrastructure. It can also be a vehicle for economic and social development. Recognizing the importance of tourism as a significant industry can help in the promotion of economic benefits and social unity.

Since Mount Everest (Sagarmatha in Nepali) was first climbed by Sir Edmund Hillary and Tensing Sherpa in 1953 the Himalayas have attracted foreigners to Nepal. Mountaineering and hiking were of considerable interest as were rafting canoeing and hang gliding. Tourism was facilitated with the opening of airways to Kathmandu and other parts of the country and the easing of travel restrictions.

The growth of the domestic airlines most definitely lends a multiplier effect on the entire economy particularly tourism and thus the sound financial health and vitality of it is essential. Various factors influence this industry directly on their way among which financial management is the most essential factor that plays a deciding role on survival of an organization. It is considered as the most essential factor of production that can utilize and mobilize other factors of production. A case in point will be the once thriving Necon Air Pt. Ltd. It is evident that gross financial mismanagement brought it untimely demise despite such promise.

The ability of an organization to analyze its financial position is essential for improving its competitive position in marketplace. Through a careful analysis of its financial performance the organization can identify opportunities to improve performance at the department unit or organization level. Several ratio analysis

instruments help to achieve comprehensive understanding of a firm's financial performance. This addresses how this information can be used as a foundation upon which to design and implement initiatives for increased productivity and profitability.

Financial performance analysis involves a comparison of firm's performance with that of other firms in the same line of business which often is identified by firm's industry classification. The analysis is used to determine the firm's financial position in order to identify the current strength and weakness and to suggest actions that might enable the firm to take advantage of the strength and correct its weakness. Managers who possess these skills are able to diagnose their firm's ills prescribe useful remedies and anticipate the financial consequences of their actions.

The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm's position and performances. It is the process of selection relation and evaluation.

In the domestic airline industry in Nepal Buddha Air and Yeti air will prove to be a good selection for comparison as they both share leading positions in the market while executing differing business strategies in terms of the number of destinations size of the fleet nature of flights (scheduled and chartered).

1.2 A Brief Profile of the Sample Companies

Buddha Air

Buddha Air was established in October 1997 by Surendra Bahadur Basnet with the investment of Nepali Banks. It started its operation with just two aircraft and now it is operating seven aircrafts. It operates brand new and straight out the factory pressurized Beech 1900D and 1900C aircrafts. It operates flights from Kathmandu to 10 major destination like Biratnagar Pokhara Bhairahawa Nepalgunj Bhadrapur

Janakpur Simara Baratpur and Dhangadhi. It also conducts Best Mountain flight in the World and offers a panoramic view of the Himalayas in just one hour. Air aircraft fly at 25000ft. and almost 5 –nautical miles from Mt. Everest giving an unparalleled view of the highest Himalayan peaks. All passengers and baggage are insured by Shikhar Insurance Kathmandu which is reinsured by Third Million Company Limited London.

Yeti Airlines

Yeti Airlines established in May 1998 operates schedule and charter flights within Nepal. It started its operations with two DeHavilland DHC-6\300 Twin Otter aircraft flying to remote hilly region. At present it operates five DHC-6\300 Twin Otter and four British Aerospace Jetstream 41 aircraft connecting more than 20 destinations throughout the country. It is the only airlines that provide regular flight services to both rural and urban centers. It also operates mountain flight. All passengers and baggage are insured by Shikhar Insurance Kathmandu which is reinsured by K.M. Dastur and Company Limited London.

1.3 Statement of Problem

The main problem that this proposed research seeks to address is that a dearth of shared knowledge of comparative financial performance analyses of successful case studies in private civil aviation service sector that can be harnessed for the facilitation of proper financial management of working capital and other finances that is essential for ensuring long term financial sustainability of civil aviation service sector in Nepal where only 15 Air Certifications are in operation out of 42 issued at a time when civil aviation service demands and thus the air-fares are skyrocketing and when the multiplier effects of air transport service in Nepal is far reaching.

Having had only a very few of successful examples in the field of Nepalese Civil Aviation this study focuses on two of the most promising organisations namely

Buddha Air Pt Ltd and Yeti Air Pt Ltd for rigorous financial performance analysis.

This research also addresses the following questions:

- What is the condition and trend of revenue for Buddha Air and Yeti Airlines?
- What is the condition and trend of operating cost for Buddha Air and Yeti Airlines?
- What is the liquidity and profitability position of the Buddha Air and Yeti Airline?
- What is the trend of the company's net profit, return on asset return on capital employed and earning per share during the study period and for five forecasted year?
- What is the relationship of net profit with the total sales, net worth and operating cost for Buddha Air and Yeti Airlines?

1.4 Objective of the Study

The main objective of the study is to compare the financial performance of the Buddha Air and the Yeti Airlines. The specific objectives are as follows:

Specific objectives:

- To analyze the operating cost of the Buddha Air and Yeti Airlines.
- To analyze the revenue of the Buddha Air and Yeti Airlines.
- To evaluate the liquidity, asset management, profitability position and compare the strengths of financial performance of the Buddha Air and Yeti Airlines.
- To analyze earning per share and financial viability of the Buddha Air and Yeti Airlines.

1.5 Significance of the Study

This research is going to prove significant to a wide range of people including investors stock brokers creditors regulators and policy makers of the airlines company. This thesis can also be beneficial to the people who seek to pursue research and study of Nepalese airlines particularly of the financial aspects.

This thesis is most important to the airlines companies under study and to other airlines also. This research will help diagnose their firm's ills prescribe useful remedies and anticipate the financial consequences of their actions.

1.6 Limitation of the Study

Every work has some constraints and limitation. This thesis is also not free from all these limitation. Some of the limitations are listed below:

1. The thesis is mostly based in the secondary data which may not be accurate as the companies may not publish or provide the actual data.
2. Data are not easily available as the related companies hesitate to provide all the financial data.
3. The basic purpose of the study is to fulfill the requirement for the M.B.S so the study lacks the time. Due to which only two airlines are taken into consideration.
4. Since not much has been done in analyzing financial performance of airlines collecting materials for thesis has been quite difficult. Due to the load shedding it really was difficult to finish the thesis on time.

1.7 Organization of the Study

This study has been broadly divided into following five chapters.

Chapter I: Introduction

The first chapter deals with the introduction. This includes background brief profile of the sample companies, statement of the problem, objective of the study significance of the study, limitation of the study and organization of the study.

Chapter II: Review of Literature

Second chapter deals with the review of related literature. It includes review of related studies like books, published and unpublished reports, journal and websites.

Chapter III: Research Methodology

Third chapter explain the research methodology used in the research. It comprises research design nature and source of data population and sample data collection method and data analysis tools.

Chapter IV: Data Presentation and Analysis

The fourth chapter deals with analyzing the data and evaluating the data with the help of different statistical and financial tools.

Chapter V: Summary Conclusion and Recommendation

The fifth and the last chapter sums up the results obtained through analysis and state the summary conclusion and recommend the solution to the stated problem.

CHAPTER II

REVIEW OF LITARATURE

The focus of a literature review is to summarize and synthesize the arguments and ideas of others. A summary is a recapitulation of the important information of the source but a synthesis is a re-organization or a reshuffling of that information. It might give a new interpretation of old material or combine new with old interpretations. Depending on the situation the literature review may evaluate the sources and advise the reader on the most pertinent or relevant.

A literature review discusses published information in a particular subject area. Its ultimate goal is to bring the reader up to date with current literature on a topic and forms the basis for another goal such as future research that may be needed in the area. Literature reviews provide a solid background for a research paper's investigation. Comprehensive knowledge of the literature of the field is essential to most research papers. A good literature review is characterized by: a logical flow of ideas; current and relevant references with consistent appropriate referencing style; proper use of terminology; and an unbiased and comprehensive view of the previous research on the topic.

The major objective of this chapter is to review available literature from various sources. The prime focus for collecting external literacy information through various textbooks research journals and research thesis. This chapter has been divided into two sections. The first section is related with conceptual framework a framework is simply the structure of the idea or concept and how it is put together. A theoretical framework is an essay that interrelate the theories involved in the question. The second one is related with the review of related studies. This includes review of various books journal and dissertations.

2.1 Conceptual Framework

Apart from remittance the four main components of Nepalese economy are agriculture industry tourism and transportation. Among these transportation and

tourism are the two service industries that have shown a great potential in Nepal. Furthermore tourism and transportation are inherently linked and complementary in nature.

With its rich natural and cultural heritage Nepal has a potential to grow as a tourist destination. Nepal's advantage in tourism is signified by its access to the Himalayas. Its unique cultural and the historical heritage are universally recognized. But due to its harsh terrain young and fragile mountainous system constructing roads is quite difficult and expensive. In some part of the country it is even not possible to construct the road. Therefore the only possible way of connection in the short term is by airfield network. With these facts in view it can be concluded that the growth of the aviation industry most definitely lends a multiplier effect on the entire economy particularly tourism and thus the sound financial health and vitality of it is essential.

2.1.1 History of Aviation

The recorded history of Aviation starts from 1783 when J. A. C. Charles made the first trip in a hydrogen balloon flying 27 miles from Paris to Nestle in France. In 1908 Wilbur Wright at Auvours France makes the first flight over 2 hours. He flies for 2 hours and 20 minutes covers 77 miles and wins the Michelin Cup. In 1908 world's first aerodrome Port-Aviation was opened 12 miles outside of Paris.

Austria established the world's first regular international air connection on 1 April 1918 when it opened its route between Vienna and Kiev. The first aircraft to be operated by OLAG (Osterreichische Luftverkehrs AG) flew from Vienna to Munich. OLAG soon expanded to become the fourth-largest airline in Europe. Following the occupation of Austria in 1938 OLAG was forced to cease operations.

The first passenger plane which flew worldwide was Vickers 66 Vimi Commercial on 1919. In the same year the first twin- engined British airliner flew in Europe USSR and China. By the end of the 1920s biplanes were becoming obsolete and

manufacturers turned to building all-metal monoplanes. Boeing Aircraft led this technological revolution with welded steel tubing for fuselage structure. Boeing Model 80 was the first multi-engine airliner with stewardess.

By 1930 airlines like Lufthansa, Qantas, Swissair, Varig, VASP, UNITED American, TWA, SABENA, KLM and Imperial Airways were flying across a wide network of air-routes with regular services across the world. The nature of airline operations showed hopeful signs of long-haul possibilities in the 1930 when Pan American Airways and Imperial Airways competed in transoceanic services using large flying boat airliners. The Second World War changed the face of air travel with the flying boat era disappearing as new land-operating aircraft were developed for war and later moved into airline design.

The first jet airliner the De Havilland Comet 1 entered service on May 2 1952 on the London - Johannesburg route. This historic BOAC flight was followed by UAT Comet flights between Paris and Dakar and South African Airways' own Jo'burg to London service in competition with the BOAC service. Air France flew Comet 1 jets on their Paris - Beirut service and Pan American ordered Comet 3 jets from De Havilland. Boeing 707s DC8s Convair 880s and VC10s replaced the earlier DC7s Stratocruisers and Constellations on the long-haul routes. Boeing 727s Caravelles DC9s BAC111s and Tridents replaced the piston-twin types on medium and short-haul routes. The new turbo-prop short-haul types like the Fokker 27 and Viscount which were introduced in the 1950s became the main types for many regional airlines where pure-jet aircraft were less economical on very short routes.

In 1970... Airbus Industrie was formally established to develop the Airbus A300 which was comprised of Aérospatiale Deutsche Airbus Fokker and Hawker Siddeley. The 1970s was the decade of the wide-body 'Jumbo' jets. Douglas DC10s Lockheed L1011 Tristars and Boeing 747s were introduced into airline service at the beginning of the 1970s replacing the Boeing 707s and DC8-63s on the long-haul prestige routes. 1980s was computer-generated twin-fan airliner age.

The older 1960s and 1970s types were withdrawn from use during this decade and replaced with MD-80s Boeing 737-300s and Airbus A310s. In 1988 Japan Air Lines says its future Boeing 747-400s will be fitted with personal video screens in the first and business class. Airline manufacturers were forging partnerships to compete by 1990s.

The American and European aviation industries began to develop within a few years of each other but Europe took the first formal steps to establish dedicated aircraft companies in the early decades of the 20th century. During this time there was a shift from aircraft designers builders and pilots all being the same people to having entrepreneurs who ran the business and built the planes and others who flew them.

2.1.2 Nepalese Aviation History

It started in 1947 when a lone pilot landed his glider on the old golf course which makes the present location of Tribhuvan International Airport. 1949 is the date that heralded the formal beginning of aviation in Nepal with the landing of a four-seater lone powered vintage Beach-craft Bonanza aircraft of Indian Ambassador Mr. Sarfit Singh Mahanthia at Gauchar.

The first chartered flight by Himalayan Aviation Dakota was flown from Gauchar to Kolkata in 1950. In 1955 king Mahendra inaugurated Gauchar Airport and renamed it as Tribhuvan Airport. In 1957 department of Civil Aviation was founded. In 1958 Royal Nepal Airlines started scheduled services domestically and externally. In 1959 RNAC was fully owned by HMG as a public undertaking. Nepal attained ICAO membership in 1960 and in 1964 Tribhuvan Airport was renamed as Tribhuvan International Airport.

1967 is marked as landing of a German Airlines Lufthansa Boeing 707 and in 1968 Thai International starts its scheduled jet air services. Nepalese jet aircraft Boeing 727\100 makes a debut landing at TIA and ATC services taken over by Nepalese personal from Indian technicians in 1972.

In 2003 Rara Airport(Mugu) Kangedanda airport (Sollukhumbu) and Thomkhara Airport(Khotang) brought in operation. Finally in 2004 domestic operation by jet aircraft was commenced. In 2005 International flight by two private operators began and in 2006 a new comprehensive Aviation Policy was introduced. GMG Airlines of Bangladesh Korean Air and Air Arabia started air service to Nepal.

2.1.3 Current Status of Nepalese Aviation

There are 47 airports in the country including one international airport and four are under construction however only 33 are currently in operation. As of now the number of air Operator certificates (AOC) holders has reached 42. Out of which only 22 hold valid licenses 15 domestic carriers are operating. On fleet strength there are 31 fixed wing aircraft and 11 helicopters in operation. On international air transportation 16 air carriers including Nepal Airlines Corporation are providing air services to and from international sectors. Thus it is evident that the private sector involvement in the aviation service Industry is increasing. In Nepal Buddha Air P. Ltd. and Yeti Air P. Ltd. are two of the leading airline services.

In the domestic airline industry in Nepal Buddha Air and Yeti air will prove to be a good selection for comparison as they both share leading positions in the market while executing differing business strategies in terms of the number of destinations size of the fleet nature of flights (scheduled and chartered).

2.1.4 Financial Analysis

Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and the profit and loss account. Financial analysis can be undertaken by management of the firm or by parties outside the firm like owners creditors investors and others.

Financial statement analysis is a judgmental process. One of the primary objectives is identification of major changes in trends and relationships and the investigation

of the reasons underlying those changes. The judgment process can be improved by experience and the use of analytical tools. Probably the most widely used financial analysis technique is ratio analysis the analysis of relationships between two or more line items on the financial statement. Financial ratios are usually expressed in percentage or times. Generally financial ratios are calculated for the purpose of evaluating aspects of a company's operations

Financial analysis involves the use of various statements – the first is the balance sheet which represent the snap shot of the firm's financial position at the moment in time and next is the income statement that depicts a summary of firm's profitability over time (Vanhorn and Wachowicz 1997:120).

Financial analysis refers to an assessment of the viability stability and profitability of a business sub-business or project. It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports. These reports are usually presented to top management as one of their bases in making business decisions. Based on these reports management may:

- Continue or discontinue its main operation or part of its business;
- Make or purchase certain materials in the manufacture of its product;
- Acquire or rent/lease certain machineries and equipments in the production of its goods;
- Issue stocks or negotiate for a bank loan to increase its working capital;
- Make decisions regarding investing or lending capital;
- Other decisions that allow management to make an informed selection on various alternatives in the conduct of its business.

Financial analysts often assess the firm's:

1. Profitability - its ability to earn income and sustain growth in both short-term and long-term. A company's degree of profitability is usually based on the income statement which reports on the company's results of operations;

2. Solvency - its ability to pay its obligation to creditors and other third parties.
3. Liquidity - its ability to maintain positive cash flow while satisfying immediate obligations;
4. Stability- the firm's ability to remain in business in the long run without having to sustain significant losses in the conduct of its business. Assessing a company's stability requires the use of both the income statement and the balance sheet as well as other financial and non-financial indicators.

Financial analysts often compare financial ratios of:

- Past Performance - Across historical time periods for the same firm (the last 5 years for example)
- Future Performance - Using historical figures and certain mathematical and statistical techniques including present and future values. This extrapolation method is the main source of errors in financial analysis as past statistics can be poor predictors of future prospects.
- Comparative Performance - Comparison between similar firms.

2.1.5 Introduction of Financial Statements

There are the two basic financial statements that are suitable in the application to business and to the corporations sole proprietorship or partnership. These are the income statement and the balance sheet or the snapshots in time where it shows the liabilities and assets for the given specified date and the values are only valid at the specific point in time. The income statement or the profit and loss is showing the series of transactions which can occur for the period of time as in between the two dates of balance sheets. The entire transactions which occurred in the period shows the income statement of the cost of materials the sales operating expenses interest paid and the taxes. The other report though does not considered to be a financial statement in the accounting sense is still the schedule of the applications and sources of the funds which is the statement of cash flow. This can tell the

performance of the company and the total cash disbursement and cash receipt of the company in the period of time as it covered by the income statement. The correlations between these three financial statement schedules can enable the reader to analyze and assess the complete financial performance of any company. Their correlations are primarily expressed by ratios and with the aide of the comparative analyses of the wide range listed companies. Most of the financial analyst had developed the several standards that are based on the ratios in order to judge the company's solvency liquidity growth prospects efficiency and more other characteristics (Tuller; 2007: 30).

2.1.6 Purpose of Financial statement:

The financial statements are being prepared with the purpose of presenting the periodical report or review in the progress of the management. The primary objective of the financial management also is the provision of information in the process of decision making all the people who are interested in the business enterprise affairs. Several people who are interested in the financial statement are the investors the management creditors and the prospective investors and other. Nevertheless this need not to be tailored made and must compromise to the preparation of the financial statements so that it can meet the requirements of its shareholders. This must need to give the significance and material information that can benefit the other parties and to those who make the future decisions (Kesavan 2005: 340).

For the investors they are interested in knowing the amount of the dividends into is shares which are going to earn as well as the market value for the specific shares. In similar terms the suppliers of the credit goods are all interested n knowing the amount due to him which will be paid in the specified time. The definite needs of the several parties which must be satisfied by the single set of the financial statements can use in the in providing the reliable financial information with regards to the economic obligations and resources as in inflows and outflows. This can also provide the net result arising activities of the enterprise and provide the

financial information which can assist the capacity earnings of the business. The financial statement is also applicable in providing the needed information regarding the changes of the economic obligations and resources including the change in the working capital and the information that are needed and related in the financial statement and to other who needs it.

2.1.7 Use of Financial Statement

The prepared financial statement can be use in serving the needs of the broad variety of people. The people who can benefit on the financial statements of the companies are the management. This means that the figures and facts that provided by the financial management can help the management in formulating the policies and to discharge the everyday activities of the business. The comparison of the financial statement for the period of time can help the management to determine the trends and the policies in order to avoid the unfavorable situation. The shareholders are also interested in the financial statement of the company due its future prospects and profitability and serves as their guide. The creditors and the suppliers can also use this in determining the liquidity position of the business and the repay of the debts in revealing the financial statements. The tax authorities need to figure the paying sales and the tax valorem duty of the companies while the employees and the trade unions can be determined the wage fixation and the payment of the bonus and other things. Of course the customers need to determine the financials of the company due to the fact that they are interested in the prices of the goods and services. This can also guided the customers in the selection of the suppliers for the production the prices and the profit margin. The financial statements are all important for the financial analyst in advising the client in whom the company is interested to. The stock exchange can quote the price of the shares that can be use by the shareholders. Lastly the government is all interested in the financial statements of the companies that can review the formulation of policies that relates to the taxation wage price and to the national plans while the public wants determine the extent of the social responsibility of the business in the society.

2.1.8 Ratio Analysis

Ratio analysis is a widely used tool for financial analysis it is defined as the systematic use of the ratio to interpret the financial statement so that the strength and weakness of a firm as well as its historical performance and current financial condition can be determined. The term ratio refers to the numerical or quantitative relationship between two item and variable (Khan and Jain 1993:60).

Ratio Analysis as the most widely used technique of financial statement analysis. It briefly discusses about the standards of comparison and various types of Ratios which are widely used by the corporates with brief interpretations and conclusions.

Introduction of Ratio Analysis:

Management should be particularly interested in knowing financial strengths of the firm to make their best use and to be able to spot out financial weaknesses of the firm to take suitable corrective actions. Ratio Analysis is a powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things". The relationship between two accounting figures expressed mathematically is known as 'financial ratio'. Ratios help to summaries large quantities of financial data and to make qualitative judgment about the firm's financial performance. It measures the firm's liquidity. The greater the ratio the greater is the firm's liquidity and vice-versa. The point to note is that a ratio reflecting a quantitative relationship helps to form a qualitative judgment.

Standard of Comparision

The ratio analysis involves comparison for a useful interpretation of the financial statements. A single ratio is itself does not indicate favorable or unfavorable condition. It should be compared with some standard. It consists of:

- **Past Ratios:** Rations calculated from past financial statements of the same firm.

- **Competitors Ratios:** Ratios of some selected firms especially most progressive and successful competitor at the same point of time.
- **Industry Ratios:** Ratios of industry to which the firm belongs.
- **Projected Ratio:** Ratios developed using the projected or proforma financial statements of the same firm.

Classification of Ratios:

The parties interested in financial analysis are short and long term creditors, owners and management. Short term creditor's main interest is I the liquidity position or short term solvency of the firm. Long term creditors on the other hand are more interested in the long term solvency and profitability of the firm. Similarly owners concentrate on the firm's profitability and financial condition. Management is interested in evaluating every aspect of the firm's performance. They are classified into 4 categories:

- Liquidity ratios
- Leverage ratios
- Activity ratios
- Profitability ratios

2.1.9 Terminologies used in Ratio Analysis

a)Liquidity Ratios

Liquidity ratios measure the firm's ability to meet current obligations. It is extremely essential for a firm to be able to meet its obligations as they become due liquidity ratio's measure. In fact analysis of liquidity needs in the preparation of cash budgets and cash and funds flow statements but liquidity ratios by establishing a relationship between cash and other current assets to current obligations provide a quick measure of liquidity.

A firm should ensure that it does not suffer from lack of liquidity and also that it does not have excess liquidity. The failure of the company to meet its obligations

due to the lack of sufficient liquidity will result in a poor credit worthiness loss of creditor's confidence or even in legal tangles resulting in the closure of company. A very high degree of liquidity is also bad idle assets earn nothing. The firm's funds will be unnecessarily tied up to current assets. Therefore it is necessary to strike a proper balance between high liquidity and lack of liquidity.

- Current ratio
- Quick ratio
- Interval measure
- Net working capital ratio

b) Current Ratio:

Current ratio is calculated by dividing current assets by current liabilities: Current assets include cash and those assets which can be converted into cash with in a year such as marketable securities, debtors and inventories. Current liabilities include creditors, bills payable, accrued expenses, short term bank loan, income tax liability and long term debt maturing in current year. The current ratio is a measure of firm's short term solvency.

As a conventional rule a current ratio of 2:1 or more is considered satisfactory. The current ratio represents margin of safety for creditors

c) Quick Ratio

Quick ratio establishes a relationship between quick or liquid assets and current liabilities. Cash is the most liquid asset other assets which are considered to be relatively liquid and included in quick assets are debtors and bills receivables and marketable securities. Inventories are considered to be less liquid.

Generally a quick ratio of 1:1 is considered to represent a satisfactory current financial condition.

d) Interval Measure

The ratio which assesses a firm's ability to meet its regular cash expenses is the interval measure. Interval measure relates the liquid assets to average daily operating cash outflows. The daily operating expenses will be equal to cost of goods sold plus selling administrative and general expenses less depreciation divided by number of days in the year.

e) Net Working Capital Ratio

The difference between current assets and current liabilities excluding short term bank borrowing is called net working capital or net current assets. Net working capital is some times used as measure of firm's liquidity.

f) Leverage Ratio

The short term creditors like bankers and suppliers of raw material are more concerned with the firms current debt paying ability. On the other hand long term creditors like debenture holders financial institutions etc. are more concerned with firms long term financial strength. In fact a firm should have short as well as long term financial position. To judge the long term financial position of the firm financial leverage or capital structure ratios are calculated. These ratios indicate mix of funds provided by owners and lenders. As a general rule there should be an appropriate mix of debt and owners equity in financing the firm's assets.

- Debt Ratio
- Debt Equity Ratio
- Capital employed to net worth ratio
- Other Debt Ratios

g) Debt Ratio

Several debt ratios may be used to analyses the long term solvency of the firm. It may therefore compute debt ratio by dividing total debt by capital employed or net assets. Net assets consist of net fixed assets and net current assets:

h) Debt Equity Ratio

It is computed by dividing long term borrowed capital or total debt by Share holders fund or net worth.

i) Capital Employed to Net Worth Ratio

There is an alternative way of expressing the basic relationship between debt and equity. It helps in knowing how much funds are being contributed together by lenders and owners for each rupee of owner's contribution. This can be found out by calculating the ratio of capital employed or net assets to net worth

j) Activity Ratios:

Funds of creditors and owners are invested in various assets to generate sales and profits. The better the management of assets the larger is an amount of sales. Activity ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets these ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios thus involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well.

k) Debtors Turnover Ratio

Debtors turnover ratio is found out by dividing credit sales by average debtors. Debtors turnover indicates the number of times debtors turnover each year. Generally the higher the value of debtors turnover the more efficient is the management of credit

l) Collection Period

The average number of days for which debtors remain outstanding is called the average collection period.

m) Assets Turnover Ratio

A firm should manage its assets efficiently to maximize sales. The relationship between sales and assets is called net assets turnover ratio. Net assets include net fixed assets and net current assets

n) Working Capital Turnover Ratio

A firm may also like to relate net current assets to sales. It may thus compute net working capital turnover by dividing sales by net working capital

o) Profitability Ratio

A company should earn profits to survive and grow over a long period of time. Profits are essential but it would be wrong to assume that every action initiated by management of a company should be aimed at maximizing profits irrespective of social consequences.

Profit is the difference between revenues and expenses over a period of time. Profit is the ultimate output of a company and it will have no future if it fails to make sufficient profits. Therefore the financial manager should continuously evaluate the efficiency of the company in terms of profits. The profitability ratios are calculated to measure the operating efficiency of the company. It gives the general idea of the growth of the company.

p) Gross Profit Ratio

It is calculated by dividing gross profit by sales. The gross profit margin reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue.

q) Net Profit Ratio

Net profit is obtained when operating expenses interest and taxes are subtracted from the gross profit. The net profit margin is measured by dividing profit after tax or net profit by sales

r) Operating Expense Ratio

Operating expense ratio explains the changes in the profit margin ratio. This ratio is computed by dividing operating expenses like cost of goods sold plus selling expenses general expenses and administrative expenses by sales. The higher operating expenses ratio is unfavorable since it will leave operating income to meet interest dividends etc.

s) Return on Investment

The term investment may refer to total assets or net assets. The conventional approach of calculating return on investment is to divide profit after tax by investment. Investment represents pool of funds supplied by shareholders and lenders. While PAT represent residue income of shareholders

t) Return on Equity

Ordinary share holders are entitled to the residual profits. A return on shareholders equity is calculated to see the profitability of owners investment. Return on equity indicates how well the firm has used the resources of owners. The earning of a satisfactory return is the most desirable objective of business.

u) Earning Per Share

The measure is to calculate the earning per share. The earning per share is calculated by dividing profit after tax by total number of outstanding. EPS simply shows the profitability of the firm on a per share basis it does not reflect how much is paid as dividend and how much is retained in business.

Ratio analysis plays an important role in the corporate world. It is a widely used tool of financial analysis. Ratio Analysis is relevant in assessing the performance of a firm in respect of liquidity position long-term solvency operating efficiency overall profitability inter-firm comparison and trend analysis. Hence understanding

the Ratio Analysis is of immense help for the non-finance executives in today's competitive world.

2.2 Review of Previous Studies

2.2.1 Review Related to Books

Financial statements are prepared with the help of financial transactions which have place during the financial year. It is prepared to provide the financial information that helps to take decision. But information provided in the financial statements is not an end on itself as no meaningful conclusion can be drawn from these statements alone. Information provided in financial statements is useful in making decision through analysis and interpretation. Financial analysis is the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationship between the items of financial statements i.e. Balance sheet and Income Statement. There are various methods or techniques used in analyzing the financial statements. One of them is the ratio analysis which is regarded as most powerful tool of financial analysis.

Munankarmi(2000) in his book entitled “Accounting for financial analysis and planning” in eighth chapter “Ratio analysis” has highlighted the meaning of ratio and nature of ratio analysis. .

Meaning of Ratio

Ratio is the expression of one figure in terms of another. It is the expression of the relationship between the mutually independent figures. It is a simple mathematical expression of the relationship of one item to another. Absolute figures alone convey no meaning unless they are compared with each other. Accounting ratios show the interrelationship existed among various accounting data.

According to Kohler “a ratio is the relationship of one amount to another expressed as the ratio of or as a simple fraction integer decimal fraction or percentage.”

According to Wixon Kell and Bedford “a ratio is an expression of the quantitative relationship between two numbers.”

Ratio refers to the numerical or quantitative relationship between two items or variables. In simple language ratio is one number expressed in terms of another and can be worked out by dividing the number to the other. So to speak it is calculated by dividing one items of the relationship with the other.

Nature of Ratio Analysis

In financial analysis ratio is used as an index of yardstick for evaluating the financial position and performance of the firm. It is a technique of analysis and interpretation of financial statements. It helps in making decisions as it helps establishing relationship between various ratios and interpret thereon. It helps analysis to make quantitative judgment about the financial position and performance of the firm. Ratio analysis involves the following steps.

- a) Selection of relevant data from the financial statement depending upon the objectives of the analysis.
- b) Calculation of required ratios from the data and presenting them either in pure ratio form or in percentage.
- c) Comparison of calculated ratios with
 - i. The ratios of the same concern over a period of years to know upward or downward trend or static position to help in estimating the future or
 - ii. The ratios of another firm in same line or
 - iii. The ratios of projected financial statement or
 - iv. The ratios of the industry average or
 - v. The predetermined standards or

- vi. The ratios between the departments of the same concern assessing either the financial position or the profitability or both.

d) Interpretation of the ratio.

Ratio analysis used financial report and data and summarizes the key relationships in order to appraise financial performance. The effectiveness will be greatly improved when trends are identified comparative ratios are available and inter-related ratios are prepared.

Weston Besley and Brigham in their book entitled “Essentials of managerial finance” eleventh edition in third chapter has pointed out the uses and limitation of Ratio analysis

Ratio analysis is used by three main groups: (1) managers who employ ratios to help analyze control and thus improve the firm’s operations. (2) credit analysts such as bank loan officers or bond rating analysts who analyze ratios to help ascertain a company’s ability to pay its debts; and (3) security analysts including both stock analysts who are interested in a company’s efficiency and growth prospect and bond analyst who are concerned with a company ability to pay interest on its bonds as well as with the liquidating value of the assets in the event the company fails.

We should also note that although ratio analysis can provide useful information concerning a company’s operations and financial condition it does have inherent problems and limitations that necessitate care and judgment. Some potential problems are listed below:

1. Many large firms operate a number of different divisions in quite different industries and in each case it is difficult to develop a meaningful set of industry average for comparative purposes. These trends to make ratio analysis more useful for small narrowly focused firms than for large multidivisional ones.

2. Most firms want to be better than average so merely attaining average performance is not necessarily good. As a target for high-level performance it is best to focus on the industry leaders ratios.
3. Inflation has badly distorted firms balance sheets – recorded values are historical and are often substantially different from “true” values. Further because inflation affects both depreciation charges and inventory costs profits also are affected. Thus a ratio analysis for one firm over time or a comparative analysis of firms of different ages must be interpreted with judgment.
4. Different accounting practices can distort the comparisons. As noted earlier inventory valuation and depreciation methods can affect financial statements and thus distort comparisons among firms. Also if one firm leases a substantial amount of its productive equipment then its assets may appear low relative to sales because leased assets often do not appear on the balance sheet. At the same time the lease liability may not be shown as debt. Therefore leasing can artificially improve both the turnover and the debt ratio.
5. It is difficult to generalize about whether the particular ratio is “good” or “bad”. For example a high current ratio might indicate a strong liquidity position which is good or excessive cash which is bad (because excess cash in the bank is a nonearning asset). Similarly a high fixed assets turnover ratio may denote either a firm that uses its assets efficiently or one that is undercapitalized and cannot afford to buy enough assets.
6. A firm might have some ratios that look “good” and others that look “bad” making it difficult to tell whether the company is on balance strong or weak. However statistical procedures can be used to analyze the net effects of a set of ratios. Many banks and lending organizations use statistical procedures to analyze firm’s financial ratios and on the basis of their analyses classify companies according to their probability of getting into financial trouble.

Ratio analysis is useful but analysts should be aware of these problems and make adjustment as necessary. Ratio analysis conducted in a mechanical unthinking manner is dangerous but used intelligently and with good judgment it can provide useful insight into a firm's operations. Probably the most important and most difficult input to successful ratio analysis is the judgment used when interpreting the results to reach an overall conclusion about the firm's financial position.

2.2.2 Review Related to Journal, Annual Reports

Private sector in the economy, mentioned that development and investment tapping private sector initiative and investment for socially useful purposes are critical for poverty reduction. Inparallel with public sector efforts private investment especially in competitive markets has tremendous potential to contribute to growth. Private markets are the engine of productivity growth creating productive jobs and higher incomes. And with the government playing a complementary role of regulation funding and service provision private initiative and investment can help provide the basic services and conditions that empower poor people by improving health education and infrastructure.(**world Development Indicator; 2008:271**)

Role of Government to promote the Private Sector in Nepal:

Nepal's private sector accounts for nearly 70% of overall investment and 68% of credit outstanding in the banking sector. However public enterprises continue to occupy a privileged position in the economy and due to favorable fiscal treatment and regulatory preference their activities impede competition and boost costs adversely affecting the private sector as a whole. The Government has privatized 16 public enterprises to date and envisages corporatizing the larger remaining public enterprises and privatizing or liquidating nine of the rest by 2005 under the Public Sector Management Program supported by ADB.

Despite economic liberalization and growth of trade in the 1990s Nepal's economy is still the least competitive of all South Asian economies. Productivity levels are just 3–5% of those in the Organization for Economic Co-operation and Development countries. A mix of factors impedes private initiatives. These include the conflict poor infrastructure overly bureaucratic public administration overregulation capricious and ineffective enforcement of existing laws and regulations corruption inadequate consultative mechanisms for addressing labor concerns and a perceived lack of clarity and vision in government policy and strategy. Efforts are being made to improve the environment for private sector development by restoring the health and soundness of the financial system improving the management and financial sustainability of public utility providers and fostering public-private partnerships to develop economic infrastructure. Maintaining liberal trade relations improving strategic infrastructure links between Nepal and neighboring countries and reforming both the regulatory environment and its implementation are central to improving the investment climate in the long run.

To stimulate investment in industry and services the Government's strategy calls for: (i) removing impediments to private sector development; (ii) accelerating privatization of public enterprises; (iii) streamlining regulatory processes and making them more transparent; (iv) amending labor laws to make them more flexible; and (v) introducing important legislation friendly to the private sector including bankruptcy and foreclosure procedures as well as judicial reforms. Infrastructure development plays an important role in facilitating private sector development and the Tenth Plan gives priority to developing the strategic road network maintaining major roads and highways and expanding electricity and communications facilities. (**Tenth Plan, 2007:566**)

The Importance of Aviation Sector in Promotion of Tourism:

Aviation sector plays an instrumental role in promoting tourism. Every popular and successful tourism destination has booming or strong airlines behind them.

However perennial severe air-seats crunch is hitting hard the Nepali tourism industry that has begun to revive after years to fall and slump.

Airlines have long been complaining of high operation cost to Nepal due to poor condition of TIA and too high ground handling landing and navigation fees. This has in turn heightened airfares to Nepal. The first thing that calls for urgent attention to promote tourism in the present scenario is improving the aviation sector so that tourists will be able to travel in and out Nepal at reasonable fares without any disturbance or nuisance.

In order to deal with the problem the government ought to fully open up the sky dismantling the barriers erected on one or another pretexts. At a time when the globalization bulldozer is swiftly flattening out monopolist business the days for protectionist policies are over. Undoubtedly the aviation market should be left for full and cutthroat competition among the operators giving all an equal opportunity.

Some airlines have been showing keen interest to fly to Nepal but are unable due to inability to receive permission from the government to operate the sizeable number of flights here. Most deploring is the nature of our bureaucracy that is embedded in a traditional and conservative psyche and the pervasive red tape continues to cripple the growth of aviation sector like others.

Without any hesitation and delay the government should give a nod for all interested airlines to run flights to Nepal. Doing so the country is not going to be a loser but emerge gainer. At the cost of protecting NAC or other airlines the tourism industry should not suffer. Undoubtedly the role of national flag carrier is immense and inevitable in promoting tourism. But the national carrier- NAC- is in very poor condition and in a struggle of survival. It is high time that the government should come up with a solid and specific strategy to revive the ailing status of the NAC.

Infant status of domestic private airlines is not helping the tourism industry either. The curtailing air business continued to grip the industry. Due to poor runaway and

other factors the operation cost of domestic airlines has remained high. Tourists prefer relatively big-bodied aircraft having efficient and excellent services. The government should iron out hurdles to create an enabling atmosphere whereby airlines would be able to cut down the operating cost thereby passing on benefits to consumers. **(Horizon NATCA, 2007:50)**

Financial Performance Analysis of CANN According to Civil aviation Report (2006: 38)

As per the audited balance sheet net current assets suggest positive trends for cash flow. Deposit continues downturn since 1999/00 till 2002/03 the profit loss scenario since 2004/05 shows remarkable improvement. CANN possesses medium term and longterm loans from ADB OPEC and Nepal Government. The existing high foreign interest rate of 10.25% on foreign loan has now been reduced to 8% from the new fiscal year 2006/07. Since the reduction cannot commensurate to the overall structure and liabilities of the organization CANN stressed that reevaluation on the interest rate be made and reduced interest be accommodated in the loan amount.

During 1998/99 the year of its transformation from DCA it made an income of Rs. 435 million. The figure rose to Rs. 1400 million in FY 2005/06. Taking into account the amount receivable from various sources the income of CAAN will come to about Rs. 2620 million. According to the budgeted cash flow for the year 2006/07 operating cost worth Rs. 772.41 million and capital investment of Rs. 780.50 million make a total expenditure of Rs. 1552.91 million. CAAN's effort to curtail operating cost and increase program based expenses will be continued. As part of the obligations of the Authority to pay principal along with the interest on the internal and foreign loan CANN has already made payment of Rs. 1935 million to the government of Nepal. It has also constituted a leap by making a payment of Rs. 570 million as Non-Tax revenue last year which is a substantial contribution of CANN because it has been paying Rs. 250 million to the government every year.

Buddha Air company profile (2007) stated that “its finance department has two division one is Revenue and the other is Expense Division. At finance department they use their own accounting software. Buddha Air practices dynamic budget system which monitors the cost of operation by the hour and their computerized accounting system has less than 1% bad debt outstanding in the Revenue Division.”

2.2.3 Review of Related Thesis

Jaiswal (2003) in her thesis entitled “The identification of financial weakness and strengths of Buddha Air in Nepal” has pointed out the following objective:

- To identify the financial strength of Buddha air which made it financially sound for the period of fiscal Year 1997/98 to 2001/02.
- To identify the financial weakness of Buddha air which is highly affecting the financial position of the Buddha Air for the period of fiscal Year 1997/98 to 2001/02.
- To show the overall financial trend of Buddha air in Nepal.
- To evaluate the target and actual performance of Buddha Air during the period of fiscal Year 1997/98 to 2001/02.

Paudel (2004) in his thesis entitled “A comparative analysis on working capital management of Necon Air and Buddha Air” has pointed out following objectives.

The main objective of this study is to examine the structure of working capital of Necon Air and Buddha Air. Similarly it has objective to compare efficient management on working capital between these two airlines. In fact Necon Air and Buddha Air are competitor airlines. If other things are similar then how the working capital affects companies healthiness. After analyzing and interpreting the finding the companies will be recommended to take corrective action.

The following will be specific objectives of this study

- To examine the working capital of these two airlines.
- To notify unnecessary sector of expenditure of these two airlines.
- To evaluate various ratios and to compare the healthiness of these two airlines.
- To analyze effectiveness and efficiency between these two airlines in sense of management of current liabilities and current assets.
- To find out the liquidity position of these two airlines.
- To provide a list of suggestions and recommendation to maximize its profit.
- To facilitate taking precaution for another airlines.

Maharjan(2004) conducted research titled “Financial Information System of Buddha Air: An analysis of the Existing System and Model” has pointed out the following objectives

- To examine the existing policies and practices of Financial Management.
- To highlight the data information and it’s application and identifying the s
- To examine the managers efforts towards the management and for effective decision-making.
- To recommend and suggest the appropriate system.
- In the modern globalization business world firms must concentrate on factors which directly affect the organization.

2.2.4 Research Gap

The purpose of this study is quite different from the studies made by the above mentioned researcher. This research is focused on the comparative financial analysis of two private airlines Buddha Air and Yeti Airlines. It will help to point out the strength and weakness of these two airlines regarding their financial position.

Research on financial performance analysis of different banks, financial institutions and some manufacturing companies has been performed earlier but financial analysis of private organization has not been done. The effort has been made to explore the financial analysis of private companies which is not even registered in stock market. So this thesis in itself is new and unique.

CHAPTER III

RESEARCH METHODOLOGY

The objective of proposed methodology used in this chapter is to describe analyze and interpretate the financial performance analysis of two private airlines using various tools and sharing the findings and the valuable inferences for the facilitation of proper financial management that is essential for ensuring long term financial sustainability of civil aviation service sector in Nepal.

3.1 Introduction

Research is the cornerstone of any science including both the hard sciences such as chemistry and physics and the social (or soft) sciences such as psychology management or education. It refers to the organized structured and purposeful attempt to gain knowledge about a suspected relationship. It is any form of systematic and arranged investigation to organize facts or gather data and is often related to a problem that has to be solved. Research is the study of materials sources and data in order to get conclusions.

Research is the process of finding out new data based on facts collected in ways that minimize observer prejudice. Research project comprises a great variety of methods that can be used in order to achieve goals. A research project starts from an idea which can be totally new or may have come from a research done by others.

Some researchers point out the cognitive processes of generating creative decisions gathering expert opinions assessing the probable results of each alternative. Other researchers point out the problems of good decision-making such as impatience with gathering data the consequences of feeling inadequate dependent. In this situation a hypothesis is used as a form of researchable proposal. Hypothesis is an explanation of observable facts or phenomena that may be verifiable via investigations.

3.2 Research Design

A Research design is simply the framework or plan for a study used as a guide in collecting and analyzing data so that desired information can be obtained with sufficient precision. It is the structure of research which holds all of the elements in a research project together as the glue. A design is described using a concise notation that enables us to summarize a complex design structure efficiently.

The research design is the plan structure and strategy of investigation conceived so as to obtain answer to research questions and to control variances. In the words of Chaire Selliz and others (1967) “A research design is the arrangement of conditions for collecting and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.”

A research design is the specification of methods and procedures for acquiring the information needed. It is overall operational pattern of framework of the project that stipulates what information is to be collected from which sources by what procedures. This thesis comparative analysis of financial performance of two private airlines is mainly based on the secondary data so the research design of the study is therefore combination of two major research design i.e. descriptive and analytical research design.

3.3 Nature and Source of Data

There are two different types of sources that need to be established in order to conduct a good analysis. The first type is a primary source which is the initial material that is collected during the research process. Primary data is the data that the researcher is collecting themselves using methods such as surveys direct observations interviews as well as logs. Secondary sources on the other hand are sources that are based upon the data that was collected from the primary source. Secondary sources take the role of analyzing explaining and combining the information from the primary source with additional information. Secondary data analysis is commonly known as second-hand analysis.

This thesis is mainly based on Secondary data. The main sources of the data are audited financial statement Civil Aviation Report newsletters company profile etc.

3.4 Population and Sample

As of now 42 AOC's have been issued by Civil Aviation Authority of Nepal with 15 in operation. All the airlines having the licence are considered to the population of this study.

Out of these two private Airlines Buddha Air Pvt. Ltd. and Yeti Airlines Pvt. Ltd. has been selected as a sample and rest are population for this study. These two airlines were selected for study since they started their services nearly at the same time and both of them operate the Mountain flights.

3.5 Data Analysis Tools

Data will be presented in the tabular and graphical form. For analysis and interpretation of the data different financial and statistical tools and technique will be used. They are ratio analysis, trend analysis and correlation.

3.5.1 Financial Tools

Financial tools basically help analyse the financial strength and weakness of a firm and also helps to compare its performance with the similar firm. Most of the financial analyst had developed the several standards that are based on the ratios in order to judge the company's solvency liquidity growth prospects efficiency etc.

Even there are many ratios to analyse and interpretate the financial statement some of them which are relevant for the study of private airlines companies under study are used here.

3.5.1.1 Liquidity Ratios

This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations and reflect the short-term financial strength of a firm. As a financial analytical tool following two liquidity ratios has been used:

3.5.1.1.1 Current Ratio

Current ratio measures the ratio between current assets and current liabilities. The current ratio is calculated by following formula:

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets include those assets which are converted into cash within one year. These assets of the firms includes cash bank balances Investment in Treasury bills, discounts overdrafts, short term loan, foreign currency loan, bills for collection, stock Receivables and prepaid expenses.

Likewise current liabilities include those liabilities which are paid within one year. These liabilities consists of trade creditors, bills payable, bank credits provision for taxation, dividends, payable and outstanding expenses. Thus current ratio is a measure of margin of safety to the creditors. The firm with the higher current ratio has better liquidity solvency.

3.5.1.1.2. Quick Ratio

This ratio is a measurement of a firm's ability to convert its current assets quickly into cash in order to meet its current liabilities. It is calculated using following formula

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

The term quick assets refers to current assets which can be converted into cash immediately or at a short notice without diminution of value. These includes cash and bank balances, short term marketable securities and debtors\receivables.

3.5.1.2 Activity Ratio

Activity ratios are concerned with measuring the efficiency in asset management. These ratios are also called efficiency ratios or assets utilization ratios or turnover

ratio. Turnover is the primary mode for measuring the extent of efficient employment of assets by relating the assets to sales. It can be defined as a test of the relationship between sales and the various assets of the firm. Depending upon the various types of assets there are various types of activity ratios

3.5.1.2.1 Debtor turnover Ratio

It shows how quickly receivables are converted into cash. This ratio indicates the speed with which account receivable are being collected. The higher the turnover ratio the better is the trade credit management and better is the liquidity of the debtors.

$$\text{Debtor turnover Ratio} = \frac{\text{Total Sales}}{\text{Debtors + Bills Receivable}}$$

The second type of ratio for measuring the liquidity of a firm's debtors is the average collection period. This is interrelated and dependent upon the debtor turnover ratio. It is calculated by dividing the days in a year by debtor's turnover.

$$\text{Average collection period} = \frac{\text{Days in a year}}{\text{Debtor turnover}}$$

The higher the turnover ratio and the shorter the average collection period the better are the trade credit management and the better is the liquidity of debtors. It implies prompt payment on the part of debtor.

3.5.1.2.2 Assets Turnover Ratio

This ratio is also known as the investment turnover ratio. It is based on the relationship between the cost of goods sold and assets\investment of a firm. Depending upon the various forms of assets there are many variants of this ratio.

$$\text{Total asset turnover Ratio} = \frac{\text{Costs of good sold}}{\text{Average total assets}}$$

$$\text{Current assets turnover Ratio} = \frac{\text{Costs of good sold}}{\text{Average current assets}}$$

The assets turnover ratio measures the efficient of a firm in managing and utilizing its assets. The higher the turnover ratio the more efficient is the management and

utilization of the assets while low turnover ratios are indicative of underutilization of available resources and presence of idle capacity.

3.5.1.3 Profitability Ratio

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. For better performance profitability ratios of firms should be higher. Profitability ratios can be determined on the basis of sales and investments.

Profitability ratios in relation to sales are Profit margin and Expenses ratio. If adequate profits are not earned on sales there will be difficulty in meeting the operating expenses and no returns will be available to the owners.

3.5.1.3.1 Gross Profit Margin

Gross Profit Margin also known as gross margin calculated by dividing gross profit by sales. A high ratio of gross profits to sales is a sign of good management as it implies that the cost of production of the firm is relatively low. It may also be indicative of a higher sales price without a corresponding increase in the cost of goods sold.

$$\text{Gross profit margin} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

3.5.1.3.2 Net Profit Margin

Net profit Margin also known as net margin. A high net profit margin would ensure adequate return to the owners as well as enables a firm to withstand adverse economic conditions when selling price is declining cost of production is rising and demand for product is falling.

$$\text{Net profit ratio} = \frac{\text{Earning after interest and taxes}}{\text{Sales}} \times 100$$

3.5.1.3.3 Expenses Ratio

Expenses ratio should be compared over a period of time with the industry average as well as firms of similar type. A low ratio is favorable. The implication of a high expenses ratio is that only a relatively small percentage share of sales is available for meeting financial liabilities like interest, tax and dividends etc.

$$\text{Operating Expenses Ratio} = \frac{\text{Administrative expenses} + \text{Selling expenses}}{\text{Sales}} \times 100$$

3.5.1.3.4 Return on Total Assets Ratio

The ratio calculates the relationship between the net profit after tax and total assets. The return on assets measures the profitability of the total investment of a firm. The higher the ratio the better is the position of the firm in terms of profitability. The ratio is calculated by the following formula:-

$$\text{Return on assets} = \frac{\text{Net Profit after Taxes} + \text{Interest}}{\text{Average total assets}} \times 100$$

3.5.1.3.5 Return on Capital Employed

The term capital employed refers to long-term funds supplied by the creditors and owner of the firm. A comparison of this ratio with similar firm over a period of time would provide sufficient insight into how efficiently the long-term funds of owner and creditors are being used. The higher the ratio the more efficient is the use of capital employed.

$$\text{Return on capital employed} = \frac{\text{Net Profit after Taxes} + \text{Interest}}{\text{Total capita employed}} \times 100$$

3.5.1.3.6 Return on Shareholders' Equity

This ratio shows how the owner's fund has been utilized to generate profit. It shows the reasonable return that the shareholders would get from the firm.

$$\text{Return on Shareholder' Equity} = \frac{\text{Net Profit after Taxes}}{\text{Net Worth}}$$

Higher ratio indicates sound and efficient management of fund. A comparison of the ratio with that of similar firms as also with the industry average will throw light on the relative performance and strength of the firm.

3.5.1.3.7 Earning per Share

The earning per share represents the amount earned on behalf of each outstanding share of common stock. A higher earning per share indicates the tremendous achievement of profitability. Earning per Share simply shows the profitability of the firm on a per share basis it does not reflect how much is paid as dividend and how much is retained in business.

EPS is calculated by using following formula

$$\text{EPS} = \frac{\text{Net profit available to the share holder}}{\text{No. of share outstanding}}$$

3.5.2 Statistical Tools

Some important tools are used to achieve the objective of this study. In this study statistical tools such as mean, percentage, standard deviation, coefficient of variance, trend analysis and coefficient of correlation have been used.

3.5.2.1 Arithmetic Mean

Arithmetic mean of a given set of observation is their sum divided by the number of observation. In general x_1, x_2, \dots, x_n are the given number of observation their arithmetic mean can be derived in this way.

$$\sum X = \frac{X_1 + X_2 + X_3 + \dots + X_n}{N}$$

Where

X= variables

ΣX = Arithmetic mean

N= number of observation

The arithmetic mean is a single value of selection which represents them in average. Out of the various central tendencies a mean is one of the useful tools to find out the average value of the given data. Furthermore it is very much useful with respect of financial analysis and it is also easy to calculate.

3.5.2.2 Percentage

In mathematics a percentage is a way of expressing a number as a fraction of 100 (per cent meaning "per hundred"). It is often denoted using the percent sign "%". Percentages are used to express how large one quantity is relative to another quantity. The first quantity usually represents a part of or a change in the second quantity which should be greater than zero. Percentages are correctly used to express fractions of the total. .

3.5.2.3 Standard Deviation

Standard deviation is a statistical measurement that sheds light on historical volatility. Standard deviation is also one of the tools to analyze the data. This tool helps to find out the fluctuation and consistency of the specified variables. Actually it measures the level of variation from the mean of variables. If this variation is above the level of 5% it will be interpreted as high level of variation. A large dispersion tells us how much the return on the fund is deviating from the expected normal returns.

It is measured by following formula

$$\sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

Where

X = Return

N = no. of observation

\bar{X} = Mean of Return

3.5.2.4 Coefficient of Variation

The coefficient of variation allows determining how much volatility (risk) is assumed in comparison to the amount of return expected from investment. The lower the ratio of standard deviation to mean return the better is risk-return tradeoff. The coefficient of variation represents the ratio of the standard deviation to the mean and it is a useful statistic for comparing the degree of variation from one data series to another even if the means are drastically different from each other. A statistical measure of the dispersion of data points in a data series around the mean.

Coefficient of variation checks the consistency of given data. The less the C.V the more consistence the value is and vice versa. The C.V is calculated by the following formula:-

$$C.V = \frac{\sigma}{\bar{X}} \times 100\%$$

σ = Standard Deviation

x = Mean

3.5.2.4 Trend Analysis

Trend analysis is a comparative analysis of a company's financial ratios over time. The term trend analysis refers to the concept of collecting information and attempting to spot a pattern or trend in the information. Although trend analysis is often used to predict future events it could be used to estimate uncertain events in the past. It is an aspect of technical analysis that tries to predict the future movement of a stock based on past data. Trend analysis is based on the idea that what has happened in the past gives traders an idea of what will happen in the

future. Trend analysis is helpful because moving with trends and not against them will lead to profit for an investor.

The analysis of a variable's past value changes to determine if a trend exists and if so what the trend indicates. A technical analyst graphs a ratio stock's price throughout a period of time to determine whether a trend has been established. Analysts often attempt to determine if trends exist for a firm's earnings per share.

The following assumptions are considered for the analysis;

- Other things will remain unchanged.
- The airlines company will run in present position and situation.
- The economy will remain in present situation.
- The forecast will be true only when the limitation of least square method is carried out.

Mathamatically the future trend of any variable is forecasted using the equation

$$Y_c = a + bx$$

Y = value of dependent variable

a = Y- intercept

b = slope of the trend line

X = value of independent variable i.e. time

Normal equation fitting above equation are

$$\sum Y_c = Na + bX$$

$$\sum XY = a\sum X + b\sum X^2$$

Where ;

$$a = \frac{\sum y}{N} \quad \text{and} \quad b = \frac{\sum xy}{\sum x^2}$$

3.5.2.5 Bar Diagram

A method of presenting data in which frequencies are displayed along one axis and categories of the variable along the other the frequencies being represented by the bar lengths.

There are different types of bar diagrams. They can be simple sub-divided and multiple bar diagram. In this thesis multiple bar diagram is used to show the analysis and comparison of revenue and operating cost of Buddha Air and Yeti Airline.

3.5.2.5 Karl Pearson's Coefficient Correlation

The correlation coefficient a concept from statistics is a measure of how well trends in the predicted values follow trends in past actual values. It is a measure of how well the predicted values from a forecast model "fit" with the real-life data.

Out of several mathematical method of measuring correlation the Karl Pearson popularity known as Pearson's coefficient of correlation widely used in practice to measure the degree of relationship between two variables. Two variables are said to have correlation when the value of one variable is accompanied by the change in the value of the other. So it is measured by following formula using two variables.

$$r = \frac{\sum XY}{\sqrt{\sum X^2} \sqrt{\sum Y^2}}$$

$$X = x - \bar{x}$$

$$Y = y - \bar{y}$$

PE of correlation coefficient tests the reliability of n observed value of correlation coefficient. It shows the extent to which the correlation coefficient is dependable as it depends upon the condition of random sampling. Probable Error is calculated by using the following formula

$$\text{Probable Error (P.E)} = \frac{1 - r^2}{\sqrt{n}}$$

If $r < \text{P.E.}$ then the correlation coefficient is insignificant and if $r > 6 \text{ P.E.}$ then the correlation coefficient is significant.

r = coefficient of correlation

$\sum XY$ = Sum of product of deviation in two series.

ΣX^2 = Sum of squared deviation in X series

ΣY^2 = Sum of squared deviation in Y series

The value of this coefficient can never be more than +1 or less than -1. Thus +1 and -1 are the limit of this coefficient. The $r = +1$ implies that correlation between variables is positive and vice versa. If there is no relationship between the predicted values and the actual values the correlation coefficient is 0 or very low. As the strength of the relationship between the predicted values and actual values increases so does the correlation coefficient. A perfect fit gives a coefficient of 1.0. Thus the higher the correlation coefficients better the relationship between the variables.

CHAPTER IV

DATA PRESENTATION AND ANALYSIS

In this chapter data collected is presented in the tabular and graphical form. These data are analyzed using different financial and statistical tools and technique. The data are analyzed and interpreted to analyse the financial performance of the two airlines under study. Ratio analysis trend analysis and correlation analysis is used in this study.

4.1 Analysis of Revenue of Buddha Air and Yeti Airlines

Revenue is defined as the income that accrues to the firm by the sale of goods/service/assets or by the supply of the firm's resources to others. The enterprise is acquiring something in exchange for providing goods and services to customers. Revenues reflect positive inflows from activities that generate cash flows. By comparing these activity levels period to period future activities and future cash flow can be assessed in a better way.

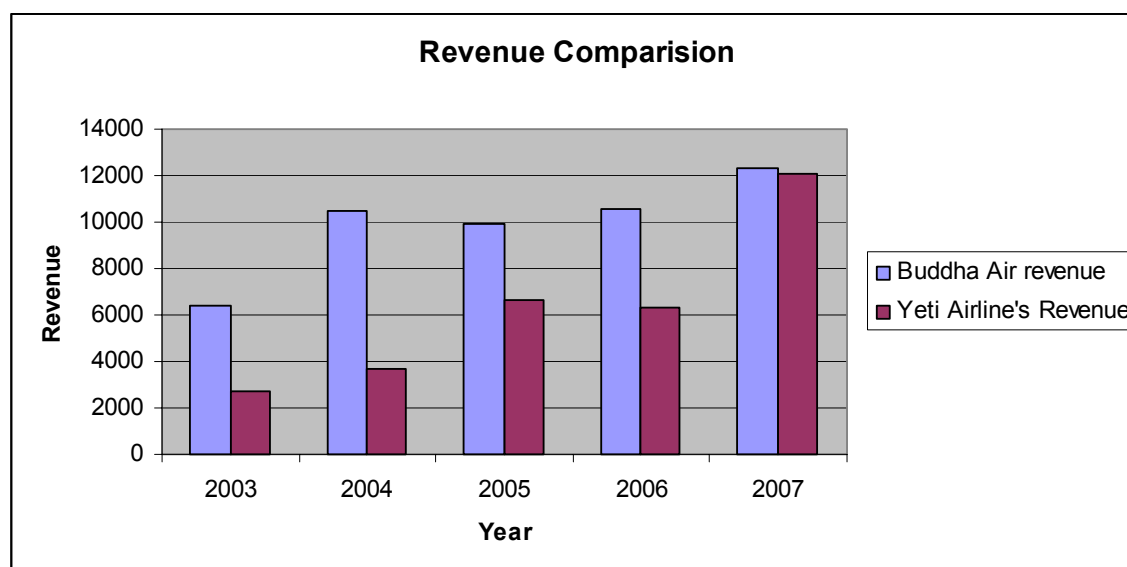
Revenues of airlines are inflows of resources resulting from providing services to customers. Although there are many source of revenue generation the main source of revenue for airlines companies are derived by passenger sales, cargo insurance surcharges, excess baggage charges, interline commission, foreign exchange commission etc. So in brief it can be said that the revenue is generated by selling the air ticket therefore sales income is considered here for comparison.

Table no. 4.1
Comparison of Revenue

FY	Buddha Air	Percentage change for Buddha Air	Percentage change for Yeti Airlines	Yeti Airline
2002-03	642168943	100%	274440368	100%
2003-04	1047410682	163 %	367149292	133.8%
2004-05	988238490	153.89%	661107618	180%
2005-06	1052831131	163.95%	635522049	99%
2006-07	1235685151	192.42%	1210833060	190.52%
Mean	992.8		629.4	
σ	194		326.58	
C.V	19.54%		51.89%	

Source annex 1A and 2A

Figure no. 4.1



When Buddha air's own revenue trends is compared year to year an increase of nearly 92% is seen during the period of study. The revenue growth is the most significant in the FY 03-04 where the growth is 63% it dips in the year 04-05 from the previous a year but still shows a 54% growth from 02-03. FY 05-06 shows a recovery from the previous year touching nearly 62% compared to year 02-03.

Year 06-07 shows the revenues at nearly 92% increase from year 02-03. The FY 03-04 shows the most significant increase at 63% followed by FY 06-07 at 17.37%. An interesting trend is exhibited in FY 04-05 when the revenues have actually shown a decline by 5.65%. This is attributed to the decline in tourism industry in Nepal due to political instability.

When Yeti Airline's own revenue is compared year to year an increase of nearly 341% during the period of study is evident. Yeti Airlines shows a growth in revenue by 33.78% in FY 03-04. The revenue growth is most significant during the fiscal years 04-05 and 06-07 which is of 80% and 90.52% respectively although there is a slight decline of 1% during the fiscal year 05-06. This shows that the Yeti Airline's revenue is in increasing trend.

If the two airlines are compared purely in revenue terms during the study period Buddha air has lead over Yeti Airlines by approx 2.3 times during Fiscal year 02-03. The lead increases to 2.85 times during fiscal year 03-04. The lead gradually tapers down to 1.49 times in fiscal year 04-05 again slightly increasing to 1.66 times during FY 05-06 and finally the gap narrows and Yeti's revenues are equal to Buddha's in FY 06-07. This shows that Yeti Airlines has made considerable progress in its sales and marketing efforts to catch up with the market leader Buddha.

In case of both the Airlines an increase in the revenues from the year 2002/03 to 2006/07 by nearly double. However this growth needs to be factored out with inflation trends to really determine whether the revenue growth is a factor of actual sales efforts or brought about by inflationary and general trends. However one thing emerges clearly Yeti has caught up with Buddha in purely sales terms in FY 2006/07.

Calculation of S.D shows that Yeti Airline have higher fluctuation over the period of study than Buddha Air as the S.D of Yeti Airline is 624.9 and of Buddha Air is

194. Yeti Air has higher C.V 51.89% than Buddha Air of 19.54% which shows that Yeti is more inconsistent in terms revenue generation.

4.2 Analysis of Operating Cost of Buddha Air and Yeti Airline

Operating expenses are outflows of resources incurred in generating revenue. Operating cost are the recurring expenses which are related to the operation of a business or to the operation of a device, component piece of equipment or facility.

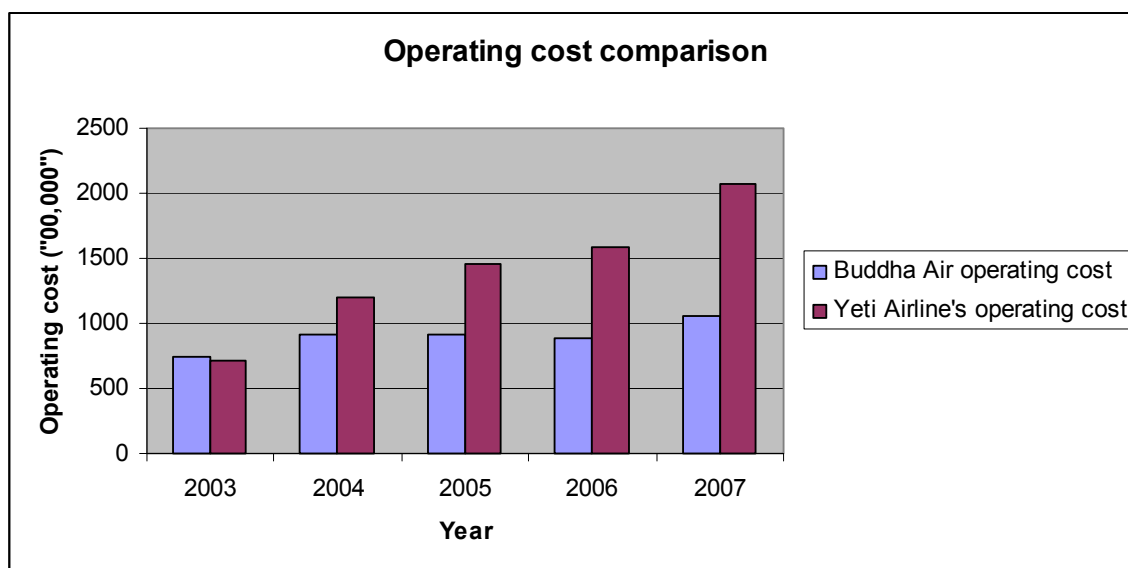
Full-service airlines have a high level of fixed and operating costs in order to establish and maintain air services: labor, fuel, airplanes engines, spares and parts IT services and networks, airport equipment, airport handling services, sales distribution, catering training, aviation insurance and other costs.

Table no. 4.2
Comparison of Operating Cost

FY	Buddha Air	Buddha Air	Yeti Airlines	Yeti Airline
2002-03	74153597	100%	71765980	100%
2003-04	91715557	124 %	119912081	167%
2004-05	91067254	99%	146048537	122%
2005-06	88346112	97%	159125688	109%
2006-07	105882749	120%	206975669	130%
Mean	89.8		140.4	
σ	9.86		44.52	
C.V	10.99%		31.71%	

Source annex 3A and 4A

Figure no. 4.2



An increase of approx 43% in the 5 year comparison timeline for Buddha Air is seen. The increase in the costs are the most pronounced in the FY 03-04 (24%) and 06-07(43%) with nearly no increase in FY 03-04 and 04-05. If we look at the increase in revenue brought about by the increase in cost a nearly constant ratio starting at 11.55 to approx. 9% year on year is evident.

Yeti Airlines shows a steady increase in the admin and selling expenses throughout the 5 year comparison period from 7.1 million rupees in 02-03 to 206 million rupees the increase is nearly 2.9 times the base year figure. This clearly demonstrates the efforts of the company to increase the market share through sales increase. The sales and administration expenses to sales varies from year to year with the most favorable ratio in FY 03-04 where 1 Rs of expense yielded nearly 32.7 Rupees of sales. The lowest contribution has been in FY 06-07 at 17.09.

When the two are compared purely in revenue to sales and operating expenses ratio terms we see that Buddha air lags in comparison to Yeti Airlines as the average ratio for as the former is 9.08 compared to the latter at 22.35. This means that the contribution of 1 Rs of operating expense yields approx 2.5 times

contribution to the sales of the former so we see in case of both the Airlines an increase in the costs from the year 02/03 to 06/07 by nearly double.

Calculation of S.D shows that Yeti Airline have higher fluctuation over the period of study than Buddha Air as the S.D of Yeti Airline is 44.52 and of Buddha Air is 9.86. Yeti Air has higher C.V 31.71% than Buddha Air of 10.99% which shows that Yeti is more inconsistent in terms operating cost.

4.3 Financial Ratio Analysis

Different financial ratios like liquidity ratio activity ratio and profitability ratio are used.

4.3.1 Liquidity Ratio

This ratio measures the liquidity position of a firm. It measures the firm's ability to meet its short-term obligations and reflect the short-term financial strength of a firm.

4.3.1.1 Current Ratio

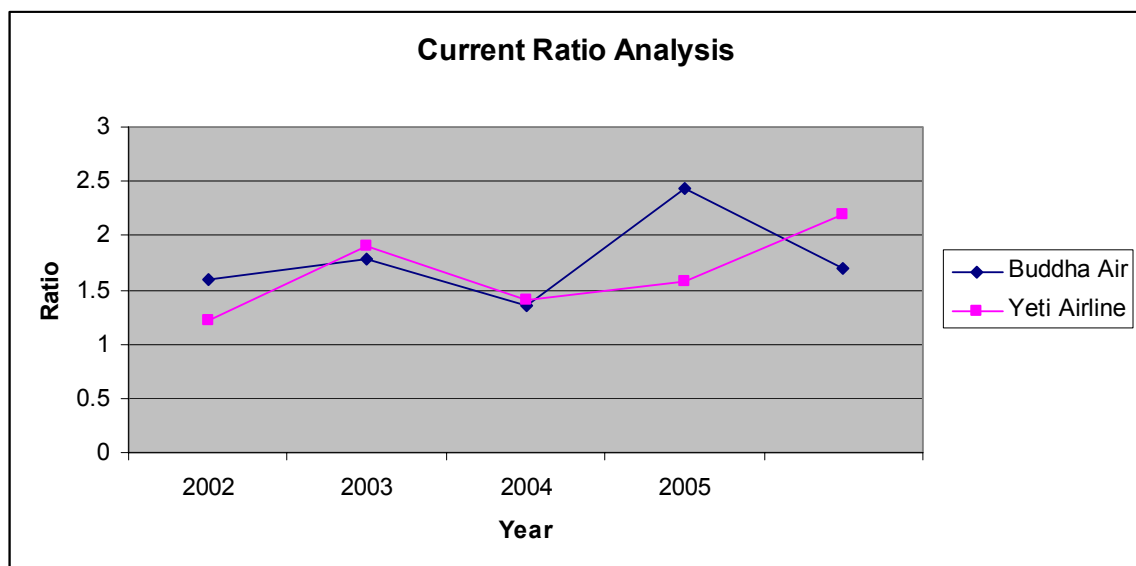
The current ratio is measure of the firm's short-term solvency. It indicates the availability of current assets in rupees for each one rupee of current liabilities. It measures the relationship between the current liabilities and current assets. A ratio of greater than one means that the firm has more current assets than current liabilities. The firm with the higher current ratio has better liquidity solvency.

Table no. 4.3
Analysis of Current Ratio

Year	Buddha Air			Yeti Airline		
	Current Asset	Current Liabilities	Ratio	Current Asset	Current Liabilities	Ratio
2002/03	224440076	139839220	1.60	107671088	88831240	1.21
2003/04	400764424	223421729	1.79	308475426	161462011	1.91
2004/05	269833840	199043270	1.36	296950730	210998911	1.41
2005/06	335922625	138346508	2.43	459017532	291857745	1.57
2006/07	369744428	218294087	1.69	664657457	301673475	2.20
Average	1.78			1.66		
σ	0.3576			0.3542		
C.V	20.09%			21.34%		

Source annex 5A and 6A

Figure no. 4.3



Current ratio has been calculated dividing current assets by current liabilities. Buddha Air has a Current ratio of 1.6 1.79 1.36 2.43 and 1.69 during the fiscal years 02/03 03/04 04/05 05/06 06/07 respectively. All the ratios except for year 05/06 are below the standard normal 2:1 which indicates that Buddha has best

solvency during fiscal year 05/06. Yeti Air has a Current ratio of 1.21 1.91 1.41 1.57 and 2.20 during the fiscal years 02/03 03/04 04/05 05/06 06/07 respectively. All the ratios except for year 06/07 are below the standard normal 2:1 which indicates that Yeti has best solvency during fiscal year 06/07.

The average of current ratio of both Buddha and Yeti are below the normal standard of 2:1. Buddha Air has better liquidity solvency than Yeti Airlines as average current ratio of Buddha Air is higher i.e. 1.78 than of Yeti Airlines which is 1.66.

From the table we can see that there is a rise of 57.85% in ratio between the fiscal years 02/03 and 03/04 then the fall of 26.17% in 03/04 and 04/05 again there is rise of 12.05% during 04/05 and 05/06 and 40.13% during 05/06 and 06/07 for Yeti while for Buddha there is a rise of 11.88% in ratio between the fiscal years 02/03 and 03/04 then the fall of 24.48% again there is a rise of 78.68% in 04/05 and 05/06 then the fall of 30.04% between the year 05/06 and 06/07.

Calculation of S.D also shows that Buddha Air have higher fluctuation over the period of study than yeti as the S.D of Buddha Air is 0.3576 and of Yeti Air is 0.3542. Yeti Air has higher C.V 21.34% than Buddha Air of 20.09% which shows that Yeti is more inconsistent in terms of meeting short term obligation.

4.3.1.2 Quick Ratio

This ratio is a measurement of a firm's ability to convert its current assets quickly into cash in order to meet its current liabilities. Quick ratio provides a check on the liquidity position of a firm. It is an indicator of the extent to which a company can pay current liabilities without relying on the sale of inventory. It shows the number of times short-term liabilities are covered by quick assets.

The term quick assets refers to current assets which can be converted into cash immediately or at a short notice without diminution of value. These include cash

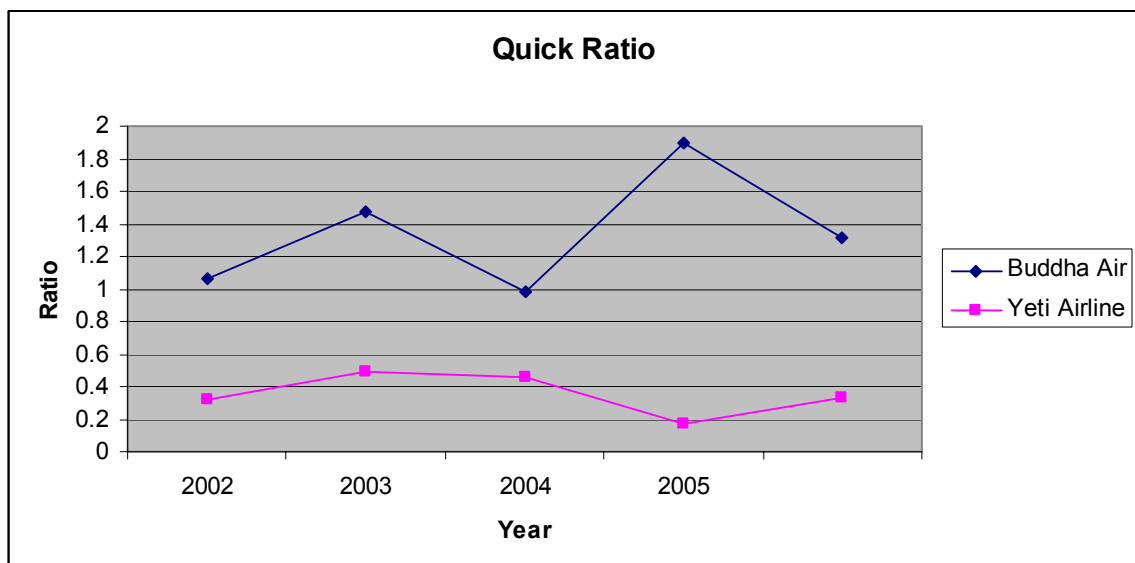
and bank balances, short term marketable securities and debtors\receivables. Quick ratio excludes inventories so it focuses on the more-liquid assets of a company.

Table no. 4.4
Analysis of Quick Ratio

Year	Buddha Air			Yeti Airline		
	Quick Assets	Current Liabilities	Ratio	Quick Assets	Current Liabilities	Ratio
2002/03	147719095	139839220	1.06	28050382	88831240	0.32
2003/04	329895426	223421729	1.48	79752868	161462011	0.49
2004/05	195609642	199043270	0.98	96827507	210998911	0.46
2005/06	263449024	138346508	1.90	50578046	291857745	0.17
2006/07	288290956	218294087	1.32	98631129	301673475	0.33
Average	1.35			0.35		
σ	0.341			0.114		
C.V	25.26%			32.57%		

Source 7A and 8A

Figure no. 4.4



Quick ratio has been calculated dividing quick assets by current liabilities. The average of quick ratio of Buddha Air is 1.35 which is above the normal standard 1:1 and that of Yeti Air is 0.35 which is below the standard. The tabulated value indicates that Yeti Air will find it more difficult to pay its current liabilities than the Buddha Air.

From the table we can see that there is a rise of 55.68% in ratio between the fiscal years 02/03 and 03/04 then the fall of 7.15% in 03/04 and 04/05 and of 63.04% during 04/05 and 05/06 and rise of 90.38% during 05/06 and 06/07 for Yeti while for Buddha there is a rise of 40% in ratio between the fiscal years 02/03 and 03/04 then the fall of 33% again there is a rise of 94% in 04/05 and 05/06 then the fall of 31% between the year 05/06 and 06/07.

Buddha Air has higher S.D of .341 than Yeti of 0.114 which indicate that Buddha Air have higher fluctuation over the period of study. Yeti Air has higher C.V 32.57% than Buddha Air of 25.26% which shows that Yeti is more inconsistent in terms of paying the current liabilities.

4.3.2 Activity Ratio

Activity ratios are concerned with measuring the efficiency in asset management. These ratios are also called efficiency ratios or assets utilization ratios or turnover ratio. Turnover is the primary mode for measuring the extent of efficient employment of assets by relating the assets to sales. Activity ratios help investors evaluate a firm's ability to effectively and efficiently manage its operations and assets. It can be defined as a test of the relationship between sales and the various assets of the firm. Depending upon the various types of assets there are various types of activity ratios.

4.3.2.1 Debtor Turnover Ratio

It shows how quickly receivables are converted into cash. This ratio indicates the speed with which account receivable are being collected. The higher the value of debtor's turnover the more efficient is the management of credit.

The second type of ratio for measuring the liquidity of a firm's debtors is the average collection period. This is interrelated and dependent upon the debtor turnover ratio. It is calculated by dividing the days in a year by debtor's turnover. This ratio indicates how quickly and efficiently the debts are collected. There is no standard period of collection it depends on the nature of the industry. The shorter the period the better it is and longer the period more the chances of bad debts.

Table no. 4.5
Analysis of Debtors' Turnover Ratio

Year	Buddha Air			Yeti Airline		
	Total Sales	Debtors + Bills Receivable	Ratio	Total Sales	Debtors + Bills Receivable	Ratio
2002/03	642168943	126804211	5.06	274440368	32297054	8.50
2003/04	1047410682	177798695	5.89	367149292	43356863	8.47
2004/05	988238490	169530339	5.83	661107618	50273270	13.15
2005/06	1052831131	196440426	5.36	635522049	38276287	16.60
2006/07	1235685151	249838037	4.95	1210833060	63475345	19.08
Average	5.42			13.16		
σ	0.3855			4.2565		
C.V	7.11%			32.34%		

Source 9A and 10A

Figure no. 4.5

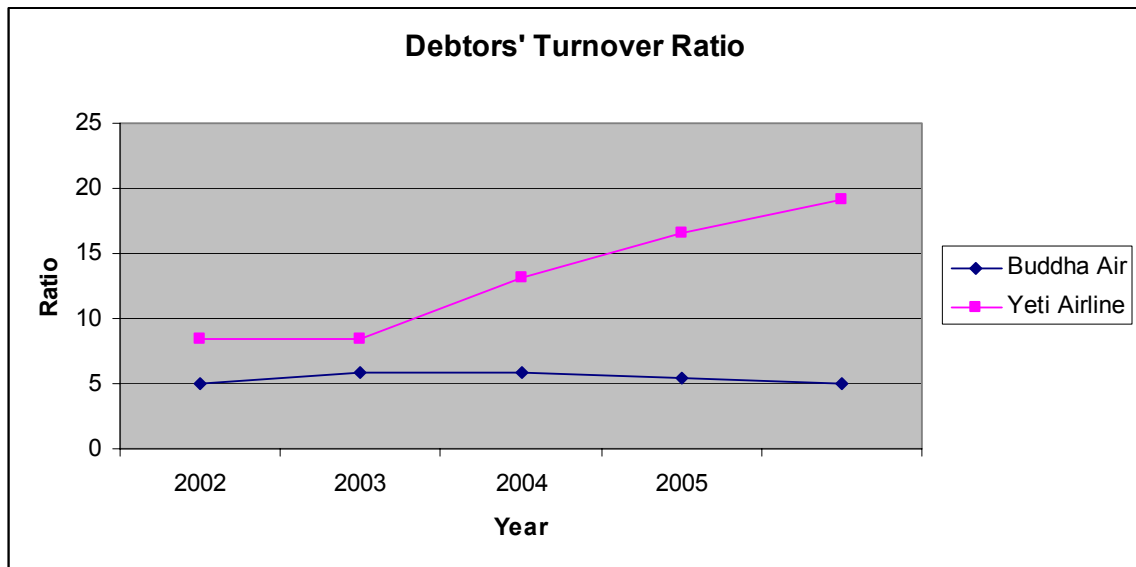


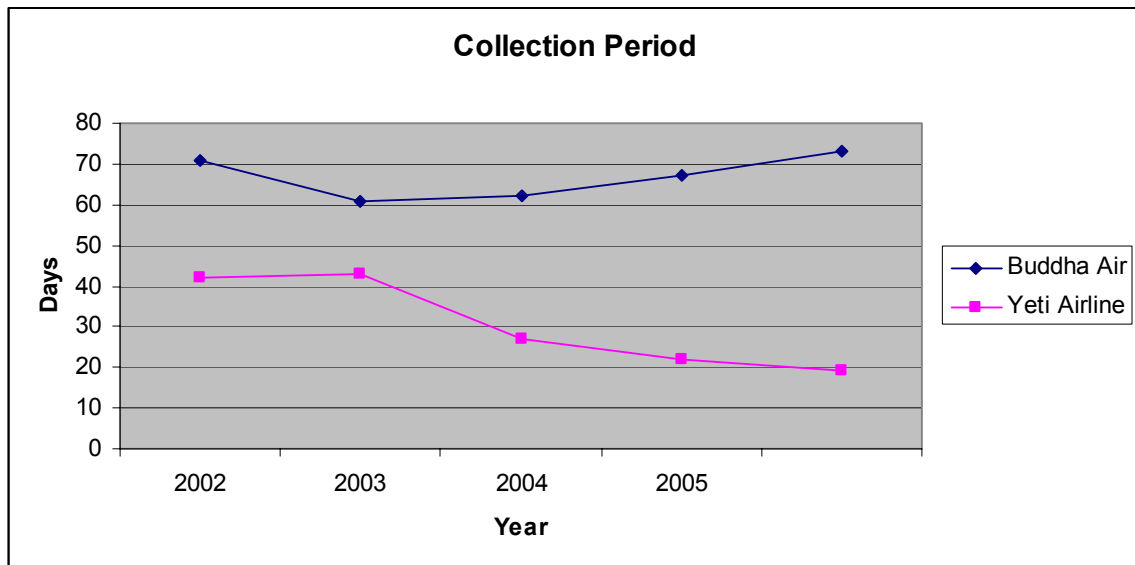
Table no. 4.6

Average collection period

Year	Buddha Air			Yeti Airline		
	Days in year	Debtors turnover	Average collection period(days)	Days in year	Debtors turnover	Average collection period(days)
2002/03	360	5.06	71	360	8.50	42
2003/04	360	5.89	61	360	8.47	43
2004/05	360	5.83	62	360	13.15	27
2005/06	360	5.36	67	360	16.60	22
2006/07	360	4.95	73	360	19.08	19
Average		67			31	
σ		4.97			9.98	
C.V		7.11%			32.22%	

Source annex 9A and 10 A

Figure no. 4.6



Debtors' turnover ratio is calculated by dividing sales by debtors + bills receivable. Yeti Air has average turnover ratio of 13.16 and 31 days average collection period. While Buddha Air has average turnover ratio of 5.42 and 67 days average collection period. This shows that Yeti has better trade credit management and the better is the liquidity of debtor as it has higher turnover ratio and the shorter average collection period than Buddha Air. It implies prompt payment on the part of debtor.

From the table we can see that there is a fall of 3% in ratio between the fiscal years 02/03 and 03/04 then the rise of 55% in 03/04 and 04/05 again there is rise of 26.26% during 04/05 and 05/06 and 14.88% during 05/06 and 06/07 for Yeti while for Buddha Air there is a rise of 16% in ratio between the fiscal years 02/03 and 03/04 then the fall of 1% and 8% during the fiscal year 03/04 and 04/05 and in 04/05 and 05/06 respectively then the fall of 8% between the year 05/06 and 06/07.

Yeti Airlines has higher S.D of 4.2565 than Buddha Air of 0.3855 which indicates that Yeti Airlines have higher fluctuation over the period of study. Yeti Air has higher C.V 32.34% than Buddha Air of 7.11% which shows that Yeti is more inconsistent in collecting the debt.

4.3.2.2 Assets Turnover Ratio

The assets turnover ratio measures the efficient of a firm in managing and utilizing its assets. The higher the turnover ratio the more efficient is the management and utilization of the assets while low turnover ratios are indicative of underutilization of available resources and presence of idle capacity. It helps to show the firm's ability of generating sales from the total financial resources available to the firm.

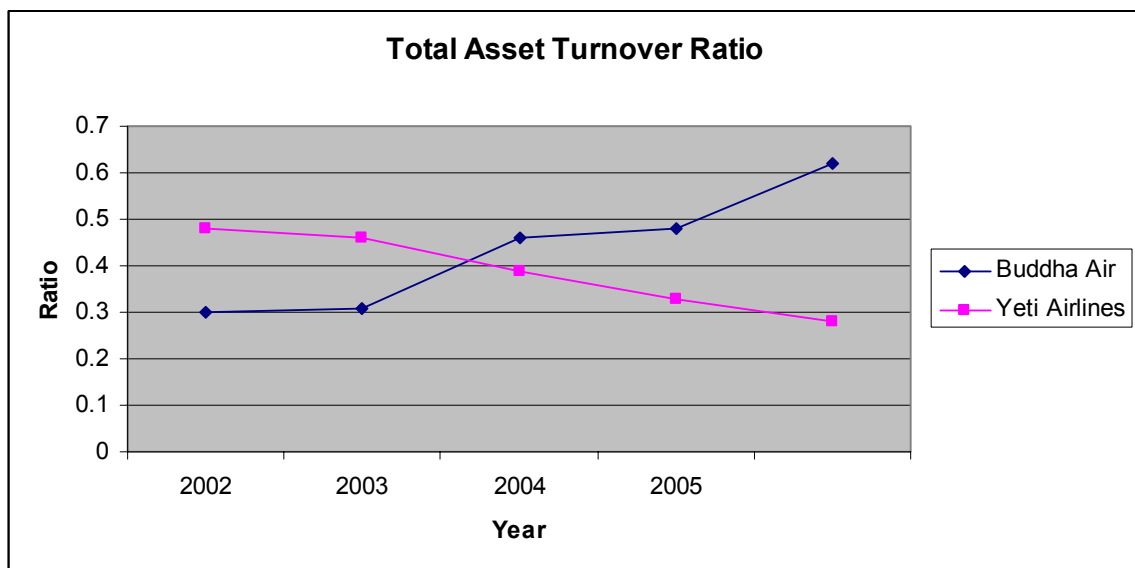
This ratio is also known as the investment turnover ratio. It is based on the relationship between the cost of goods sold and assets\investment of a firm. Depending upon the various forms of assets there are many variants of this ratio.

Table no. 4.7
Analysis of Total Asset Turnover Ratio

Year	Buddha Air			Yeti Airline		
	Cost of good sold	Total assets	Ratio	Cost of good sold	Total assets	Ratio
2002/03	370450574	1249645627	0.30	149619295	312680259	0.48
2003/04	507698336	1625064784	0.31	200252510	432009843	0.46
2004/05	683925801	1494931473	0.46	208256216	534359933	0.39
2005/06	726449415	1521963007	0.48	215763598	659518033	0.33
2006/07	845034064	1365935778	0.62	310394695	1115625411	0.28
Average	0.43			0.39		
σ	0.119			0.0758		
C.V	27.67%			19.43%		

Source 13A and 14A

Figure no. 4.7



Total asset turnover ratio is calculated by dividing sales by total assets. The average of total assets turnover ratio of Buddha Air's is 0.43 and of Yeti Air is 0.39. The total assets turnover ratio of Buddha Air is higher than the Yeti Air which implies that the Buddha Air is more efficient in managing and utilizing the assets than Yeti Air. It indicates that the Buddha Air has utilized its available resources and present of idle capacity in a better way to generate maximum sales than compared to the Yeti Air.

Buddha Air has higher S.D of 0.119 than Yeti of 0.0758 which indicate that Buddha Air have higher fluctuation over the period of study. From the table also we can see that the there is prominent difference in ratio in between year 03-04 and 04-05 and again in between year 05-06 and 06-07 in case of Buddha year.

Buddha Air has higher C.V of 27.67% than Yeti Air of 19.43% which shows that Buddha Air has more variable data in the observation. Yeti Air is more consistent in utilizing the total assets.

4.3.3 Profitability Ratio.

Profitability ratios are used to indicate and measure the overall efficiency of a firm in terms of profit and financial performance. Profitability ratios measure how well

a company is performing by analyzing how profit was earned relative to sales total assets and net worth. They ratios are used to assess a business' ability to generate earnings as compared to expenses over a specified time period. For better performance profitability ratios of firms should be higher. Profitability ratios can be determined on the basis of sales and investments.

4.3.3.1 Gross Profit Margin

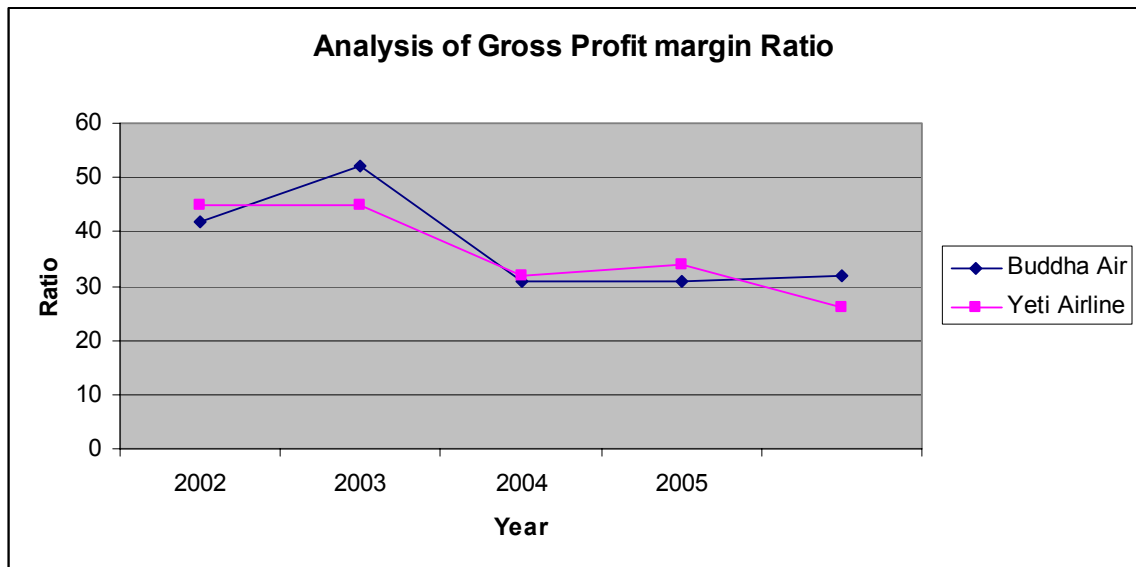
Gross Profit Margin also known as gross margin calculated by dividing gross profit by sales. A high ratio of gross profits to sales is a sign of good management as it implies that the cost of production of the firm is relatively low. It may also be indicative of a higher sales price without a corresponding increase in the cost of goods sold.

Table no. 4.8
Analysis of Gross Profit Margin Ratio

Year	Buddha Air			Yeti Airline		
	Gross Profit	Sales	Ratio	Gross Profit	Sales	Ratio
2002/03	271718369	642168943	42.00	124821074	274440368	45.00
2003/04	539712346	1047410682	52.00	166896782	367149292	45.00
2004/05	304312690	988238490	31.00	208256216	661107618	32.00
2005/06	326381716	1052831131	31.00	215763598	635522049	34.00
2006/07	390651086	1235685151	32.00	310394695	1210833060	26.00
Average	37.6			36.4		
σ	8.31			7.5		
C.V	22.1%			20.6%		

Source annex 15A and 16A

Figure no. 4.8



The gross profit margin ratio is calculated by dividing gross profit with sales. The average gross profit margin ratio of Buddha Air is 37.6% and of Yeti Air is 36.4%. It implies that Buddha Air is much more efficient in the production and distribution of its product than Yeti Air. A high gross profit ratio to sales is a sign of good management as it indicate that the cost of production of the firm is relatively low.

However if we consider the companies individually the gross profit margin of both the companies are declining over the period of study. This has resulted due to the high selling cost that is evident from the table. Both the companies are unable to control its production cost or are inefficient in utilizing current as well as fixed assets.

From the table we can see that there is consistency in ratio between the fiscal years 02/03 and 03/04 then there is a fall of 29% in 03/04 and 04/05 again there is rise of 6% during 04/05 and 05/06 and a fall of 24% during 05/06 and 06/07 for Yeti while for Buddha there is a rise of 24% in ratio between the fiscal years 02/03 and 03/04 then the fall of 40% in between 03/04 and 04/05 the ratio is same during 04/05 and 05/06 then there is rise of 3% between the year 05/06 and 06/07.

Buddha Air has higher S.D of 8.31 than Yeti of 7.5 which indicate that Buddha Air have higher fluctuation over the period of study. Buddha Air has higher C.V of 22.1% than Yeti Air of 20.6% which shows that Buddha Air has more variable data in the observation.

4.3.3.2 Net Profit Margin

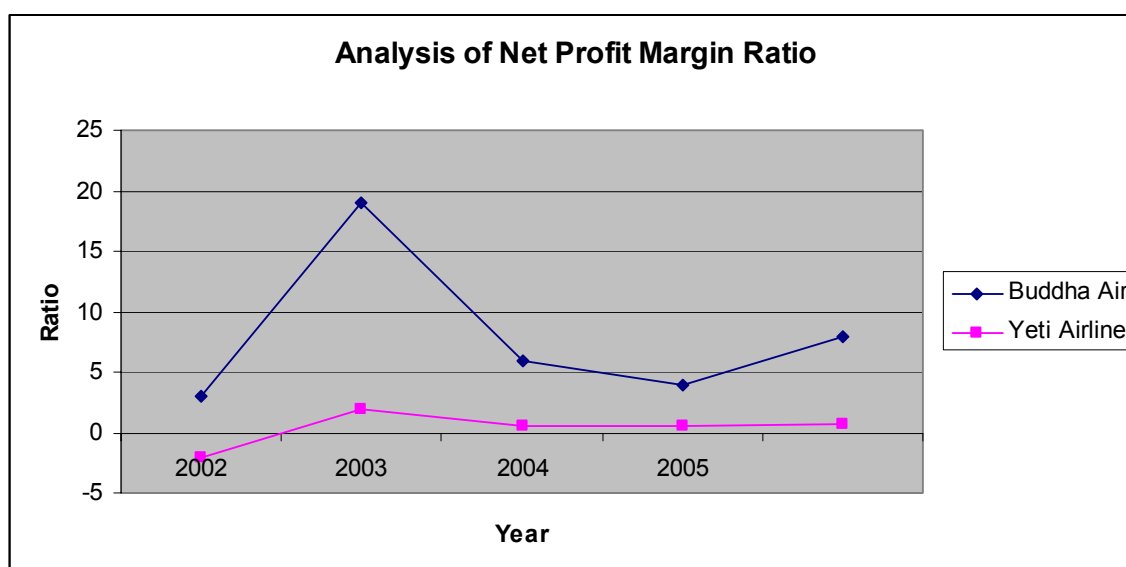
Net profit Margin is also known as net margin as this ratio indicates profit levels of a business after all costs like cost of sales, administration costs, selling and distributions costs have been taken into account. The relationship between net profit and sales indicates management's ability to operate the business with sufficient success not only to recover the cost of production operating expenses of business and cost of borrowed fund but also to leave a margin of reasonable compensation to the owners for providing their capital at risk.

Table no. 4.9
Analysis of Net Profit Margin Ratio

Year	Buddha Air			Yeti Airline		
	Net Profit	Sales	Ratio	Net Profit	Sales	Ratio
2002/03	21002562	642168943	3.00	(4253927)	274440368	-2.00
2003/04	204130548	1047410682	19.00	8925168	367149292	2.00
2004/05	56269490	988238490	6.00	3504659	661107618	0.53
2005/06	47271724	1052831131	4.00	3440899	635522049	0.54
2006/07	96568670	1235685151	8.00	8907673	1210833060	0.74
Average	8.00			0.362		
σ	5.76			1.30		
C.V	72.02%			3.59%		

Source 17A and 18A

Figure no. 4.9



Net profit margin ratio is calculated dividing earning after interest and tax by sales. The average net profit margin ratio of Buddha Air 8 which is quite high than of Yeti Air which is 0.40 over the period of time under study. So it can be said that Buddha Air can ensure adequate return to the owners as net profit margin indicate margin of compensation left to the owners for providing their capital after all expenses have been met as compared to yeti Air. High net profit margin enables a firm to withstand adverse economic conditions when selling price is declining cost of production is rising and demand for product is falling.

From the table we can see that there is high rise of 533% in ratio between the fiscal years 02/03 and 03/04 then there is a big fall of 68% in 03/04 and 04/05 again there is fall of 33% during 04/05 and 05/06 and a rise of 100% during 05/06 and 06/07 for Buddha while for Yeti there is a rise of 200% in ratio between the fiscal years 02/03 and 03/04 then the fall of 73.5% in between 03/04 and 04/05 again there is rise of 1.88% during 04/05 and 05/06 then there is rise of 37.04% between the year 05/06 and 06/07.

Buddha Air has higher S.D of 5.76 than Yeti of 1.304 which indicate that Buddha Air have higher fluctuation over the period of study. Buddha Air has higher C.V of

72.02% than Yeti Airlines of 3.26% which shows that Buddha Air has more variable data in the observation.

4.3.3.3 Expenses Ratio

Another profitability ratio related to sales is the expenses ratio. A low ratio is favorable. The implication of a high expenses ratio is that only a relatively small percentage share of sales is available for meeting financial liabilities like interest, tax and dividends etc.

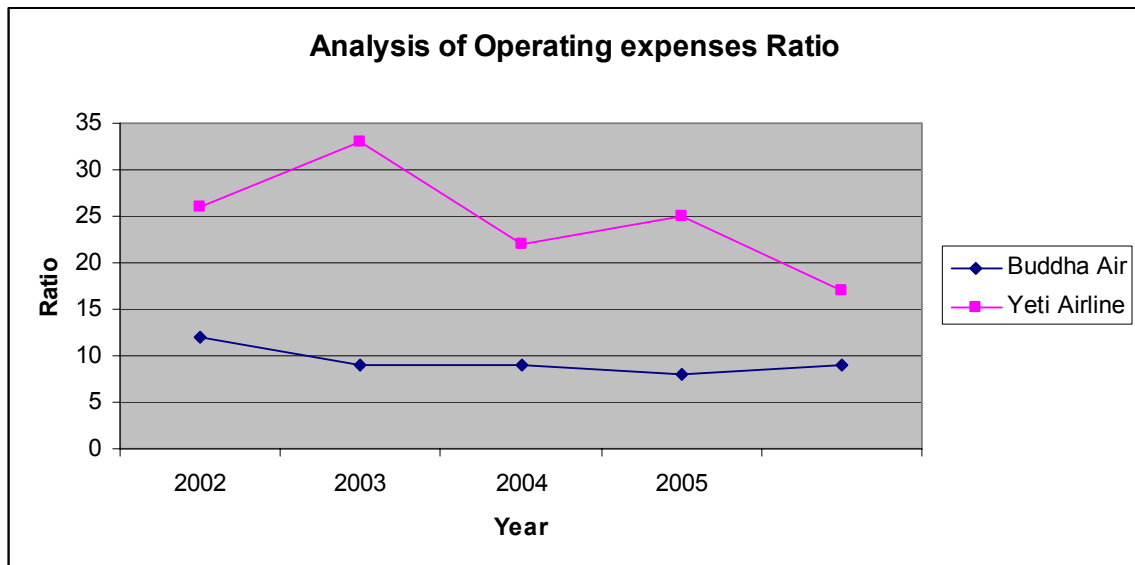
The operating expense ratio is the ratio between the total operating expenses and the effective gross income. Operating expenses are costs associated with the operation and maintenance of the companies.

Table no. 4.10
Analysis of Operating Expenses Ratio

Year	Buddha Air			Yeti Airline		
	Operating Expenses	Sales	Ratio	Operating Expenses	Sales	Ratio
2002/03	74153597	642168943	12.00	71765980	274440368	26.00
2003/04	91715557	1047410682	9.00	119912081	367149292	33.00
2004/05	91067254	988238490	9.00	146048537	661107618	22.00
2005/06	88346112	1052831131	8.00	159125688	635522049	25.00
2006/07	105882749	1235685151	9.00	206975669	1210833060	17.00
Average	9.4			24.6		
σ	1.356			5.24		
C.V	14.42%			21.29%		

Source 19A and 20A

Figure no. 4.10



The operating expense ratio is calculated dividing operating cost by sales. From the table we can see that the operating ratio of the Buddha Air is 9.4 and that of Yeti Air is 24.6. It implies that Yeti Air has only a relatively small percentage share of sales available for meeting financial liabilities like interest, tax and dividends etc.

From the table we can see that there is rise of 24.89% in ratio between the fiscal years 02/03 and 03/04 then there is a fall of 32.35% in 03/04 and 04/05 again there is rise of 13.34% during 04/05 and 05/06 and then the fall of 31.73% during 05/06 and 06/07 for Yeti while for Buddha there is a rise of 24% in ratio between the fiscal years 02/03 and 03/04 then there is consistency in data during 03/04 and 04/05 then there is fall of 9% during 04/05 and 05/06 then again there is rise of 2% during the year 05/06 and 06/07.

Yeti Airlines has higher S.D of 5.24 than Buddha Air of 1.356 which indicate that Yeti Airline have higher fluctuation over the period of study. Yeti Air has higher C.V of 21.29% than Buddha Air of 14.42% which shows that Yeti Air has more variable data in the observation.

4.3.3.4 Return on Total Assets Ratio

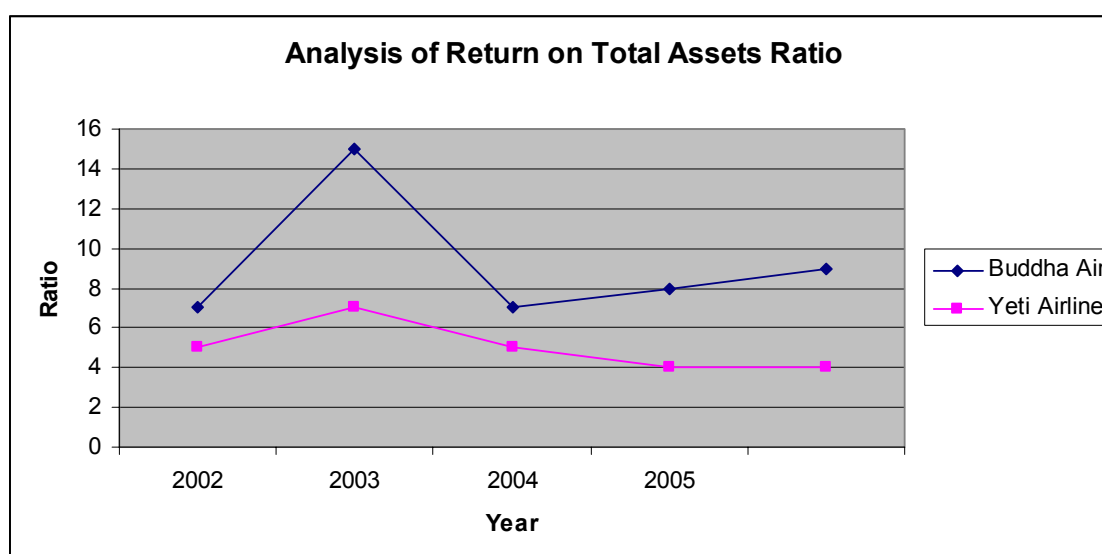
The ratio calculates the relationship between the net profit after tax and total assets. The higher the ratio the better is the position of the firm in terms of profitability.

Table no. 4.11
Analysis of Return on Total Assets Ratio

Year	Buddha Air			Yeti Airline		
	Net Profit after Taxes + Interest	Average total assets	Ratio	Net Profit after Taxes + Interest	Average total assets	Ratio
2002/03	86615912	1249645627	7.00	16547621	312680259	5.00
2003/04	249296129	1625064784	15.00	28789264	432009843	7.00
2004/05	109118741	1494931473	7.00	24868027	534359933	5.00
2005/06	116766768	1521963007	8.00	27025512	659518033	4.00
2006/07	129105013	1365935778	9.00	42280151	1115625411	4.00
Average	9.2			5		
σ	2.99			1.095		
C.V	32.54%			21.9%		

Source annex 21A and 22A

Figure no. 4.11



Return on total assets ratio is calculated dividing net profit after taxes and interest by average total assets. The average return on total assets ratio of Buddha Air is 9.2 and that of Yeti Air is 5. Since the return on total asset ratio of Buddha Air is higher than the Yeti Air it can be said that Buddha Air is earning more profit than Yeti Air.

Buddha Air has higher S.D of 2.99 than Yeti of 1.095 which indicate that Buddha Air have higher fluctuation over the period of study. Buddha Air has higher C.V of 32.54% than Yeti Airlines of 21.9% which shows that Buddha Air has more variable data in the observation.

4.3.3.5 Return on Capital Employed

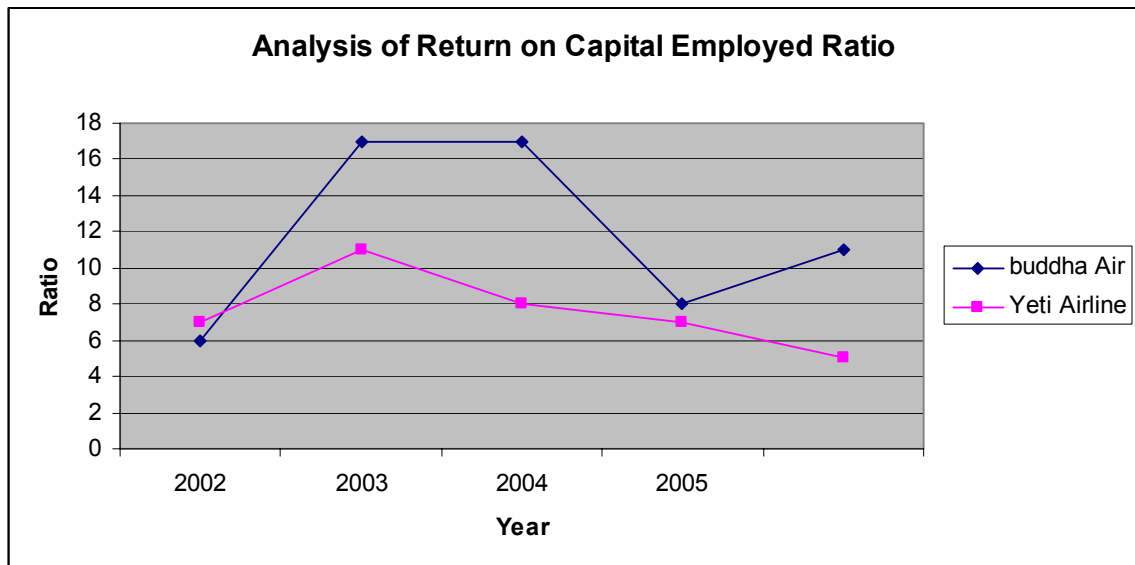
The term capital employed refers to long-term funds supplied by the creditors and owner of the firm. A comparison of this ratio with similar firm over a period of time would provide sufficient insight into how efficiently the long-term funds of owner and creditors are being used. The higher the ratio the more efficient is the use of capital employed.

Table no. 4.12
Analysis of Return on Capital Employed Ratio

Year	Buddha Air			Yeti Airline		
	Net Profit after Tax	Total capital employed	Ratio	Net Profit after Tax	Total capital employed	Ratio
2002/03	86615912	1338073199	6.00	16547621	223849018	7.00
2003/04	249296129	1447319874	17.00	28789264	270547832	11.00
2004/05	109118741	1328354143	17.00	24868027	323361022	8.00
2005/06	116766768	1403071558	8.00	27025512	367660288	7.00
2006/07	129105013	1154085873	11.00	42280151	813951935	5.00
Average	11.8			7.6		
σ	4.53			1.96		
C.V	38.43%			25.78%		

Source annex 23A and 24A

Figure no. 4.12



Return on capital employed ratio is calculated by dividing cost of good sold to total capital employed. The average of return on capital employed ratio of Buddha Air is 11.8 and that of Yeti Air is 7.6 which implies that Buddha Air has utilized the long term funds of owners and creditor more efficiently than the Yeti Air.

From the table we can see that there is rise of 57.14% in ratio during the fiscal years 02/03 and 03/04 then there is a fall of 27.27% in 03/04 and 04/05 again there is fall of 12.5% during 04/05 and 05/06 and then Of 28.57% during 05/06 and 06/07 for Yeti while for Buddha there is a rise of 183% in ratio between the fiscal years 02/03 and 03/04 then there is consistency in data during 03/04 and 04/05 again there is fall of 12.5% during 04/05 and 05/06 and rise of 28.57% between the year 05/06 and 06/07.

Buddha Air has higher S.D of 4.53 than Yeti of 1.96 which indicate that Buddha Air have higher fluctuation over the period of study. Buddha Air has higher C.V of 38.43% than Yeti Airlines of 25.78% which shows that Buddha Air has more variable data in the observation.

4.3.3.6 Return on Share Holder's Equity

This ratio shows how the owner's fund has been utilized to generate profit. It shows the reasonable return that the shareholders would get from the firm. A return on shareholders equity is calculated to see the profitability of owners' investment. Higher ratio indicates sound and efficient management of fund. A comparison of the ratio with that of similar firms as also with the industry average will throw light on the relative performance and strength of the firm.

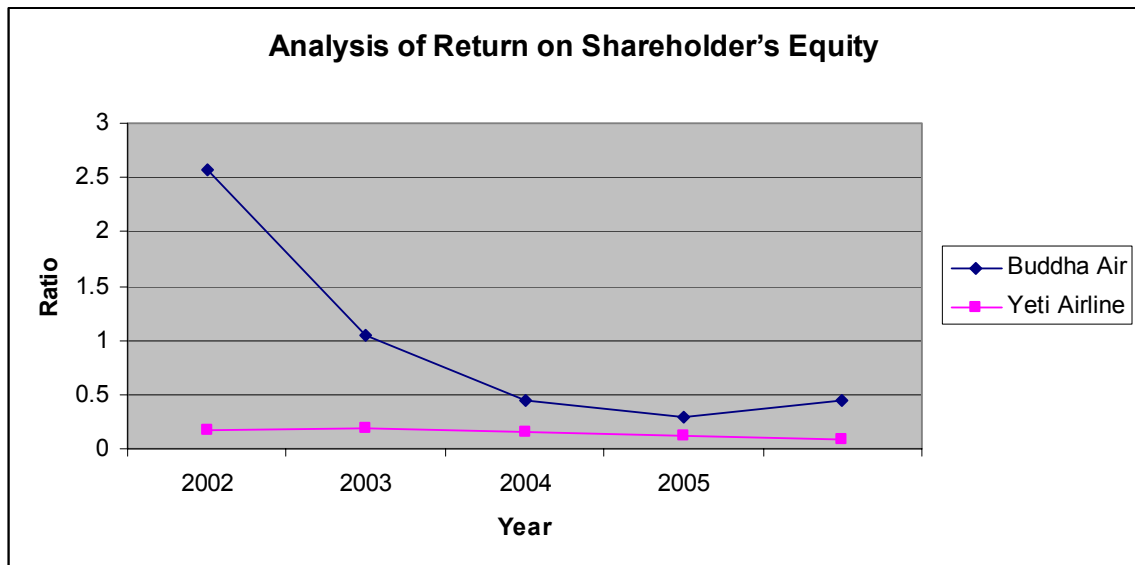
Table no. 4.13

Analysis of Return on Shareholder's Equity

Year	Buddha Air			Yeti Airline		
	Net profit after tax	Net Worth	Ratio	Net profit after tax	Net Worth	Ratio
2002/03	86615912	33630511	2.58	16547621	99898457	0.17
2003/04	249296129	237761059	1.05	28789264	152783625	0.19
2004/05	109118741	249003926	0.44	24868027	155216361	0.16
2005/06	116766768	392844320	0.30	27025512	221213678	0.12
2006/07	129105013	296275650	0.44	42280151	506934438	0.08
Average	0.96			0.14		
σ	0.8495			0.04		
C.V	88.50%			28.57%		

Source annex 25A and 26A

Figure no. 4.13



Return on share holder's equity is calculated by dividing net profit after tax by net worth. The average ratio of Buddha Air is 4.80 which are higher than average ratio of Yeti Airlines of .72. This implies that Buddha Air has used the resource of owner in a better way than compared to the Yeti Airlines as higher ratio indicated sound and efficient management of fund. This also indicates that the Buddha Air has earned more return to its equity holders and has satisfied its share holder than compared to the Yeti Airlines as the earning of a satisfactory return is the most desirable objective of business.

From the table we can see that there is rise of 13.56% in ratio between the fiscal years 02/03 and 03/04 then there is a fall of 14.97% in 03/04 and 04/05 again there is fall of 23.75% during 04/05 and 05/06 and then the fall of 31.73% during 05/06 and 06/07 for Yeti while for Buddha there is a fall of 59% in ratio between the fiscal years 02/03 and 03/04 then again the fall of 58% and 32% during fiscal year 03/04 and 04/05 and 04/05 and 05/06 respectively then there is rise of 47% during the year 05/06 and 06/07.

Buddha Air has higher S.D of .8495 than Yeti of .04 which indicate that Buddha Air have higher fluctuation over the period of study. Buddha Air has higher C.V of

88.50% than Yeti Air of 28.57% which shows that Buddha Air has more variable data in the observation.

4.3.3.7 Earning Per Share

The earning per share represents the amount earned on behalf of each outstanding share of common stock. A higher earning per share indicates the tremendous achievement of profitability. Earning per Share simply shows the profitability of the firm on a per share basis it does not reflect how much is paid as dividend and how much is retained in business.

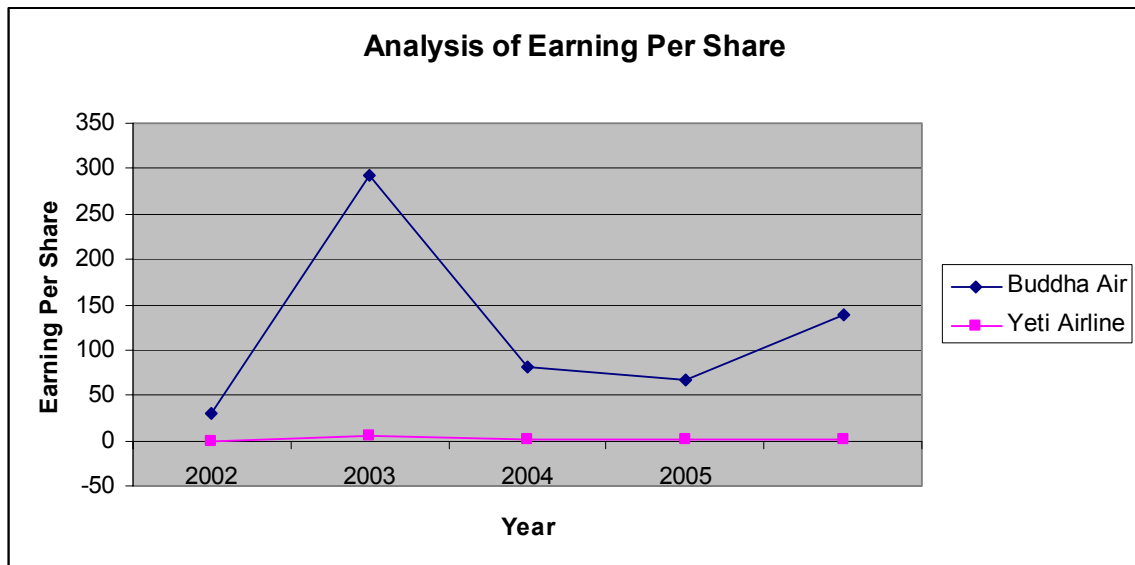
Table no. 4.14

Calculation of Earning Per Share

Year	Buddha Air			Yeti Airline		
	Net profit available to equity holders	No. of ordinary shares outstanding	EPS	Net profit available to equity holders	No. of ordinary shares outstanding	EPS
2002/03	21002562	700000	30.00	(4253927)	2744400	-1.55
2003/04	204130548	700000	291.62	8925168	1566000	5.70
2004/05	56269490	700000	80.38	3504659	1566000	2.24
2005/06	47271724	700000	67.53	3440899	2192400	1.57
2006/07	96568670	700000	137.96	8907673	5000000	1.78
Average	121.5			9.74		
σ	92.22			2.305		
C.V	75.91%			118.20%		

Source annex 27A and 28A

Figure no. 4.14



Earning per share is calculated by dividing net profit by no. of ordinary shares outstanding. Average earning per share of Buddha Air is Rs. 607.49 which is quite high compared to the Yeti Airlines which is just Rs. 9.47. This proves that the quality of earning of Buddha Air is better than Yeti Airlines as earning per share represents the market's expectation of future earnings as indicated by current earning.

Buddha Air has higher S.D of 92.22 than Yeti of 2.305 which indicate that Buddha Air have higher fluctuation over the period of study. Yeti Airlines has higher C.V of 118.20% than Buddha Air of 75.91% which shows that Yeti Airline has more variable data in the observation.

4.4 Trend Analysis

Trend analysis is very useful and commonly used tool to forecast the future event in quantitative term on the basis of the tendencies in the dependent variable in the past period. Straight line implies that irrespective of the seasonal, cyclic and irregular fluctuation the trend values increases or decreases by absolute amount per unit of time.

Mathematically the future trend of any variable is forecasted using the equation,
 $Y_c = a + bx$

With the help of the equation the future values of Net profit, Return on Asset, Return on capital employed, EPS for coming five years have been predicted.

4.4.1 Trend Analysis of Net Profit for Buddha Air and Yeti Airline

The trend analysis for of net profit for Buddha Air and Yeti airline is formed for five year for fiscal year 2002/03 to 2006/07 and forecasted for next five year i.e. for fiscal year 2007/08 to 2011/12.

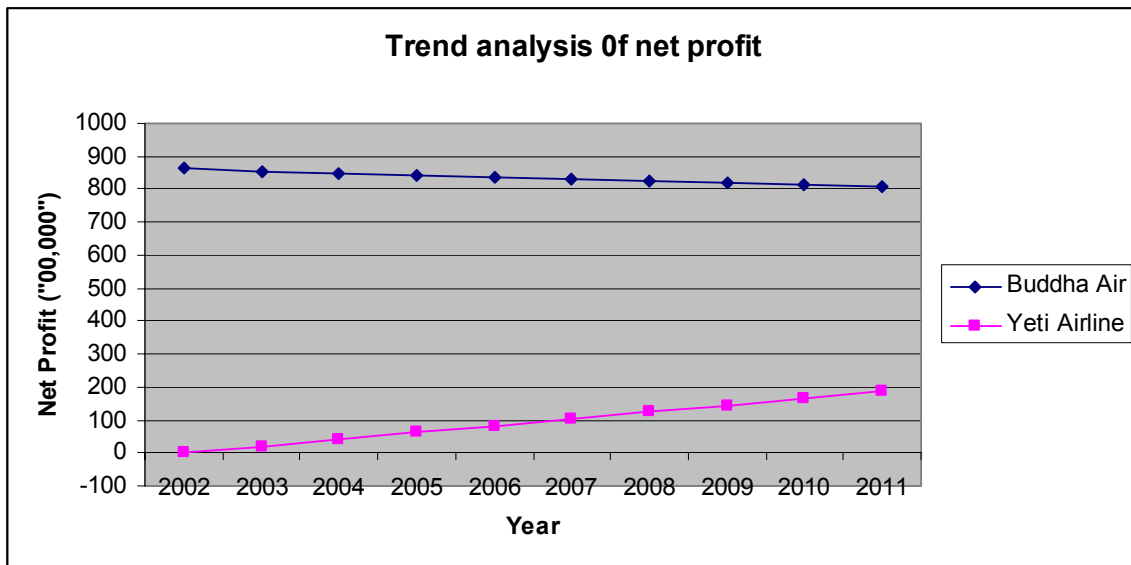
Table no. 4.15

Trend value of Net Profit of Buddha Air and Yeti Airline

Year	Buddha Air	Yeti Airline
2002-2003	861.8	-0.4
2003-2004	855.9	20.3
2004-2005	850	41
2005-2006	844.1	61.7
2006-2007	838.2	82.4
2007-2008	832.3	103.1
2008-2009	866	123.8
2009-2010	820.5	144.5
2010-2011	814.6	165.2
2011-2012	808.7	185.9

Source annex 1B and 2B

Figure no. 4.15



The analysis illustrate that the total net profit of the Yeti Airline is in increasing trend while for Buddha Air total net profit is in decreasing trend. Since the slope of the trend line for Yeti Airline is 20.5 the increasing trend is quite obvious but for Buddha Air slope of trend is -5.9 so there is only slight change in the trend value.

Although the trend of the Yeti Airline is increasing it lags far behind the Buddha Air, even at the end of the projected year net profit of Buddha Air is quite high (Rs. 80,870,000) than that of Yeti Airline (Rs.18, 450,000). The value of net profit for Buddha Air at the end of projected year is 4.38 times greater than that of Yeti Airline.

4.4.2 Trend Analysis of ROA for Buddha Air and Yeti Airline:

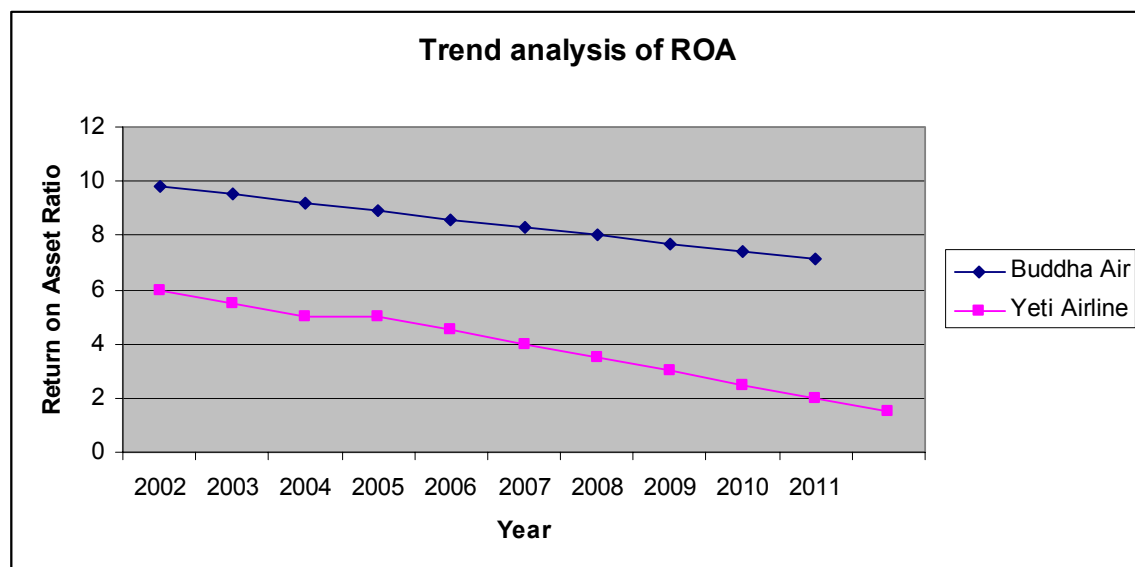
The trend analysis for of ROA for Buddha Air and Yeti airline is formed for five year for fiscal year 2002/03 to 2006/07 and forecasted for next five year i.e. for fiscal year 2007/08 to 2011/12.

Table no. 4.16
Trend value of ROA of Buddha Air and Yeti Airline

Year	Buddha Air	Yeti Airline
2002-2003	9.8	6
2003-2004	9.5	5.5
2004-2005	9.2	5
2005-2006	8.9	4.5
2006-2007	8.6	4
2007-2008	8.3	3.5
2008-2009	8	3
2009-2010	7.7	2.5
2010-2011	7.4	2
2011-2012	7.1	1.5

Source annex 3 and 4B

Figure no. 4.16



The analysis illustrate that the Return on Asset of both Yeti Airline and for Buddha Air it is in decreasing trend. The slope of the trend line for Yeti Airline is -0.5 and for Buddha Air is -0.3.

Although the trend of the both Yeti Airline and the Buddha Air are decreasing, even at the end of the projected year Return on Asset of Buddha Air is high i.e 7.1% than that of Yeti Airline i.e 1.5%. The value of Return on Asset for Buddha Air at the end of projected year is 4.73 times greater than that of Yeti Airline.

4.4.3 Trend Analysis of ROCE for Buddha Air and Yeti Airline

The trend analysis for of ROCE for Buddha Air and Yeti airline is formed for five year for fiscal year 2002/03 to 2006/07 and forecasted for next five year i.e. for fiscal year 2007/08 to 2011/12.

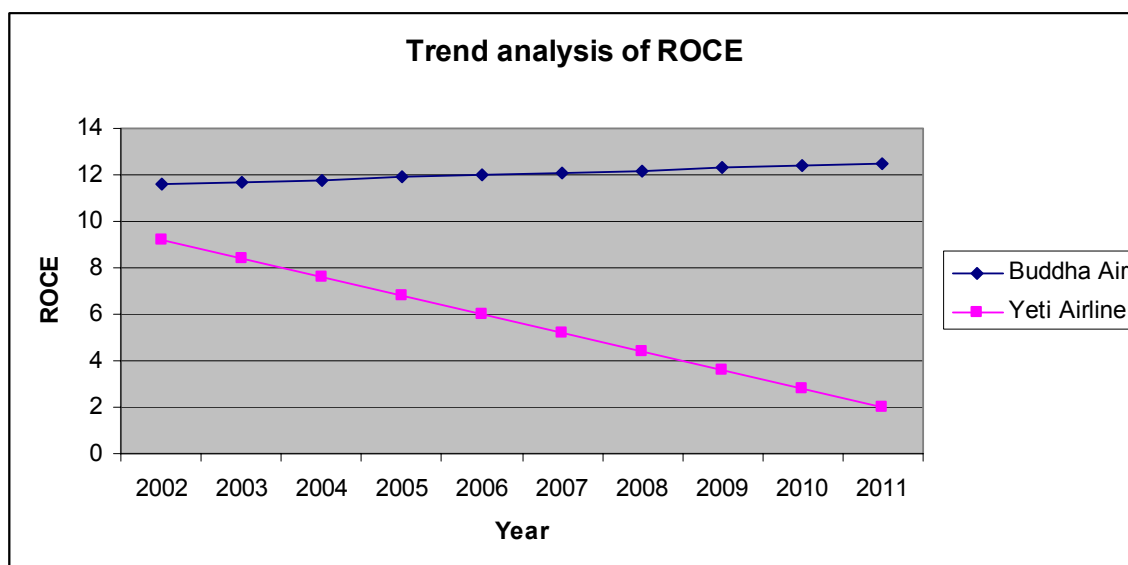
Table no. 4.17

Trend value of ROCE of Buddha Air and Yeti Airline

Year	Buddha Air	Yeti Airline
2002-2003	11.6	9.2
2003-2004	11.7	8.4
2004-2005	11.8	7.6
2005-2006	11.9	6.8
2006-2007	12	6
2007-2008	12.1	5.2
2008-2009	12.2	4.4
2009-2010	12.3	3.6
2010-2011	12.4	2.8
2011-2012	12.5	2

Source annex 5 and 6B

Figure no. 4.17



The analysis illustrates that the Return on Capital Employed of the Buddha Air is in an increasing trend, while for Yeti Airline it is in a decreasing trend. The slope of the trend line for Buddha Air is 0.1, and for Yeti Airline it is -0.8, which is also visible from the graph plotted as the increase of ROCE of Buddha Air is not so prominent, but the decrease in trend for Yeti Airline is quite obvious.

At the end of the projected year, the ROCE of Buddha Air is quite high, i.e. 12.5%, compared to that of Yeti Airline of just 2%. The value of ROCE for Buddha Air at the end of the projected year is 6.25 times greater than that of Yeti Airline.

4.4.4 Trend Analysis of EPS for Buddha Air and Yeti Airline

The trend analysis for EPS for Buddha Air and Yeti Airline is formed for five years for fiscal year 2002/03 to 2006/07 and forecasted for the next five years, i.e. for fiscal year 2007/08 to 2011/12.

Table no. 4.18

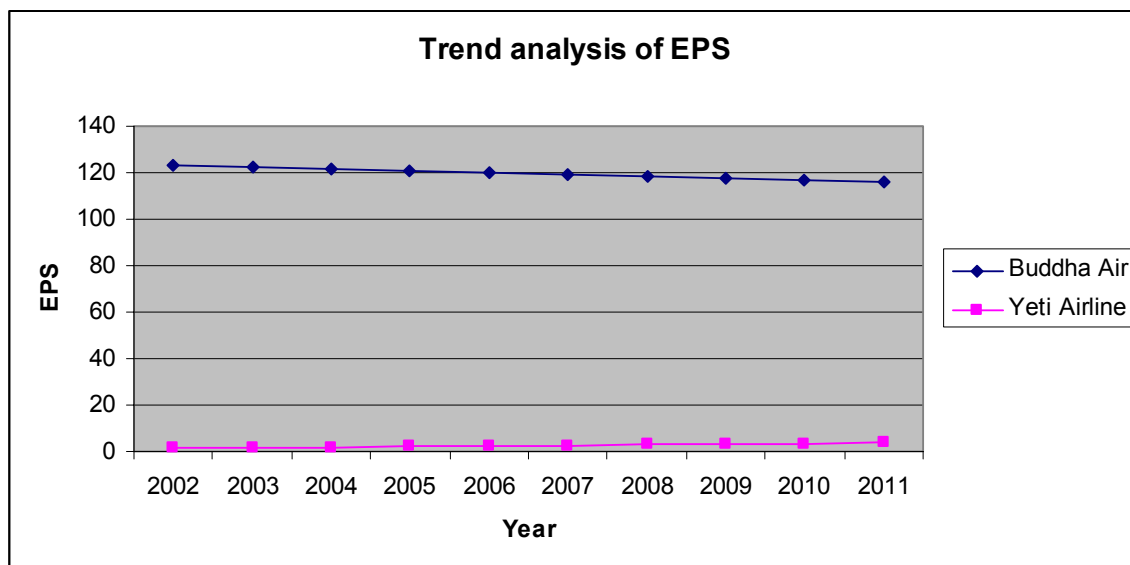
Trend value of ROCE of Buddha Air and Yeti Airline

Year	Buddha Air	Yeti Airline
2002-2003	123.132	1.494
2003-2004	122.315	1.747
2004-2005	121.5	1.948
2005-2006	120.681	2.253
2006-2007	119.864	2.506
2007-2008	119.047	2.759
2008-2009	118.23	3.012
2009-2010	117.413	3.265
2010-2011	116.596	3.518
2011-2012	115.779	3.771

Source 7 and 8 B

Figure no. 4.18

Trend value of ROCE of Buddha Air and Yeti Airline



The analysis illustrate that the Earning per Share of the Yeti Airline is in increasing trend while for Buddha Air total net profit is in decreasing trend. The slope of the trend line for Yeti Airline is 0 .253 and for Buddha Air is -0.817.

Although the trend of the Yeti Airline is increasing it lags far behind the Buddha Air, even at the end of the projected year net profit of Buddha Air is quite high (Rs. 116) than that of Yeti Airline (Rs.4). The value of net profit for Buddha Air at the end of projected year is 29 times greater than that of Yeti Airline.

4.5 Co-relation Coefficient

Correlation is the measure of relationship between two or more characteristics of a population or a sample. It simply measures the changes between the phenomenons. If two quantities vary in a related manner so that a movement an increase or decrease in one end to be accompanied by a movement in the same or opposite direction in the other, they are called correlated. If the relationship is direct, they are called positively correlated and if the relationship is inverse, they are called negatively correlated. If any change in other does not affect the other variable, they are called uncorrelated. The correlation may be perfect, imperfect or zero. It is assumed that the relation between the phenomenons is always linear but in practice it is not possible to have linear relationship between the phenomenons. The limits of correlation vary from -1 to +1.

Probable Error of correlation coefficient tests the reliability of n observed value of correlation coefficient. It shows the extent to which the correlation coefficient is dependable as it depends upon the condition of random sampling.

If $r < P.E.$, then the correlation coefficient is insignificant and if $r > 6 P.E.$, then the correlation coefficient is significant.

4.5.1 Correlation Coefficient between Net Profit and Total Sales

In this study correlation analysis between two variables, net profit and total sales is calculated to measure the closeness of relationship between them. To what extent dependent variable total sales will be changed when there is a change in independent variable net Profit.

Table no. 4.19

Correlation between Net Profit and Total Sales of Buddha and Yeti Airline

Companies	r	r ²	P.E	6 P.E	Remark
Buddha Air	0.47	22.09%	0.2332	1.4	Insignificant
Yeti Airline	0.57	32.49%	0.2044	1.226	Insignificant

Source : Annex 1C and 2C

Above table shows the coefficient of correlation between net profit and total sales of Buddha Air and Yeti Airline are 0.47 and 0.57 respectively so it indicate that net profit and total sales are positively related. r² of Buddha Air indicate that the change in net profit due to the change in total sales is only by 22.09% and the remaining percentage of change is by other variable. Similarly r² of Buddha Air indicate that the change in net profit due to the change in total sales is only by 32.49% and the remaining percentage of change is by other variable. Probable error of correlation coefficient between net profit and total sales of Buddha Air and Yeti Airline are 0.2332 and 0.2044 respectively. Correlation coefficient of both the companies appeared smaller than six times the probable error i.e. 1.4 and 1.226 which indicate that the net profit and total sales are not significantly associated.

4.5.2 Correlation Coefficient between Net Profit and Net Worth

In this study correlation analysis between two variables, net profit and net worth is calculated to measure the closeness of relationship between them. To what extent dependent variable net worth will be changed when there is a change in independent variable net Profit.

Table no. 4.20

Correlation between Net Profit and Net Worth of Buddha and Yeti Airline

Companies	r	r ²	P.E	6 P.E	Remark
Buddha Air	0.20	4%	0.2891	1.734	Insignificant
Yeti Airline	0.60	36%	0.1931	1.589	Insignificant

Source : Annex 3C and 4C

Above table shows the coefficient of correlation between net profit and net worth of Buddha Air and Yeti Airline is 0.20 and 0.60 respectively implies that the net profit and net worth are positively related. r² of Buddha Air indicate that the change in net profit due to the change in net worth is only by 4% and the remaining percentage of change is by other variable. Similarly r² of Yeti Airline indicate that the change in net profit due to the change in net worth is only by 36% and the remaining percentage of change is by other variable. Probable error of correlation coefficient between net profit and total sales of Buddha Air and Yeti Airline are 0.2891 and 0.1931 respectively. Correlation coefficient of both the companies appeared smaller than six times the probable error i.e. 1.734 and 1.589 which indicate that the net profit and total sales are not significantly associated.

4.5.3 Correlation Coefficient between Net Profit and Operating Cost

In this study correlation analysis between two variables, net profit and operating cost is calculated to measure the closeness of relationship between them. To what extent dependent variable operating cost will be changed when there is a change in independent variable net Profit.

Table no. 4.21

Correlation between Net Profit and Operating Cost of Buddha and Yeti Airline

Companies	r	r ²	P.E	6 P.E	Remark
Buddha Air	.44	19.36%	0.241	1.45	Insignificant
Yeti Airline	.72	51.84%	0.1422	.8654	Insignificant

Source : Annex 5C and 6C

Above table shows the coefficient of correlation between net profit and operating cost of Buddha Air and Yeti Airline is 0.44 and 0.72 respectively which implies that net profit and operating cost are positively related. r^2 of Buddha Air indicate that the change in net profit due to the change in operating cost is only by 19.36% and the remaining percentage of change is by other variable. Similarly r^2 of Buddha Air indicate that the change in net profit due to the change in total sales is by 51.48% and the remaining percentage of change is by other variable. Probable error of correlation coefficient between net profit and total sales of Buddha Air and Yeti Airline are 0.241 and 0.1442 respectively. Correlation coefficient appeared smaller than six times the probable error i.e. 1.45 and 0.8654 which indicate that there is no significant relationship between the net profit and operating cost.

4.6 Major Findings of the Study

After the analysis and interpretation of financial data some findings are derived from it in this chapter. Major finding of this study during the period of five years for Buddha Air and Yeti Airline is presented below:

1. Buddha air leads over Yeti Airlines by approx 2.3 times during Fiscal year 02-03. The lead increases to 2.85 times during fiscal year 03-04. The lead gradually tapers down to 1.49 times in fiscal year 04-05, again slightly increasing to 1.66 times during FY 05-06 and finally the gap narrows and Yeti's revenues are equal to Buddha's in FY 06-07. This shows that Yeti Airlines has made considerable progress in its sales and marketing efforts to catch up with the market leader Buddha Air.
2. An increase in the revenues from the year 59-60 to 63-64 is nearly double for both the Airlines. However, this growth needs to be factored out with inflation trends to really determine whether the revenue growth is a factor of actual sales efforts or brought about by inflationary and general trends.

3. In revenue to sales and admin expenses ratio terms, Buddha air lags in comparison to Yeti Airlines as the average ratio for as the former is 9.08 compared to the latter at 22.35. This means that the contribution of 1 Rs of operating expense yields approx 2.5 times contribution to the sales of the former so, in case of both the Airlines, an increase in the costs from the year 02/03 to 06/07 is nearly double.
4. The average of current ratio of both Buddha and Yeti are below the normal standard of 2:1. Buddha Air has better liquidity solvency than Yeti Airlines as average current ratio of Buddha Air is higher than of Yeti Airlines. Buddha Air has higher fluctuation over the period of study than yeti as the S.D of Buddha Air is higher than of Yeti Airline. Yeti Airline has higher C.V than of Buddha Air which shows that Yeti is more inconsistent in terms of meeting short term obligation.
5. The average of quick ratio of Buddha Air is above the normal standard 1:1 and that of Yeti Air is below the standard. This indicates that Yeti Air will find it more difficult to pay its current liabilities than the Buddha Air. Buddha Air has higher S.D than Yeti which indicate that Buddha Air have higher fluctuation over the period of study. Yeti Air has higher C.V than of Buddha Air which shows that Yeti is more inconsistent in terms of paying the current liabilities.
6. Yeti Air has average turnover ratio of 13.16 and 1 month average collection period. While Buddha Air has average turnover ratio of 5.42 and 2 months average collection period. This shows that Yeti has better trade credit management and the better is the liquidity of debtor as it has higher turnover ratio and the shorter average collection period than Buddha Air. It implies prompt payment on the part of debtor.

7. The average of total asset turnover ratio of Buddha Air is higher than the Yeti Air which implies that the Buddha Air is more efficient in managing and utilizing the assets than Yeti Air. It indicates that the Buddha Air has utilized its available resources and present of idle capacity in a better way to generate maximum sales than compared to the Yeti Air.
8. The average of current assets turnover ratio of Buddha Air is higher than the Yeti Air which implies that the Buddha Air is more efficient in managing and utilizing the assets than Yeti Air. It indicates that the Buddha Air has utilized its available resources and present of idle capacity in a better way than compared to the Yeti Air. Buddha Air has higher S.D than of Yeti which indicates that Buddha Air has higher fluctuation over the period of study. Yeti Air has higher C.V than Buddha Air which shows that Yeti Air has more variable data in the observation Yeti is more inconsistent in terms of utilizing the current assets.
9. Although the average gross profit margin ratio of Buddha Air is 37.6% and of Yeti Air is 36.4%, which implies that Buddha Air is more efficient in the production and distribution of its product than Yeti Air, the gross profit margin of both the companies are declining over the period of study.
10. The average net profit margin ratio of Buddha Air is quite high than of Yeti Airline over the period of time under study. So it can be said that Buddha Air can ensure adequate return to the owners as compared to yeti Air.
11. The operating ratio of the Buddha Air is lower than that of Yeti Airline. Yeti Air has only a relatively small percentage share of sales available for meeting financial liabilities like interest, tax and dividends etc. than compared to Buddha Air.

12. The average return on total assets ratio of Buddha Air is higher than that of Yeti Airline. So, it can be said that Buddha Air is earning more profit than Yeti Air.
13. The average of return on capital employed ratio of Buddha Air is higher than that of Yeti Air, which implies that Buddha Air has utilized the long term funds of owners and creditor more efficiently than the Yeti Air.
14. The average ratio of Buddha Air is higher than average ratio of Yeti Airlines. This implies that Buddha Air has used the resource of owner in a better way than compared to the Yeti Airlines as higher ratio indicated sound and efficient management of fund. This also indicates that the Buddha Air has earned more return to its equity holders and has satisfied its share holder than compared to the Yeti Airlines as the earning of a satisfactory return is the most desirable objective of business.
15. Average earning per share of Buddha Air is quite high compared to the Yeti Airlines. This proves that the quality of earning of Buddha Air is better than Yeti Airlines as earning per share represents the market's expectation of future earnings as indicated by current earning.
16. The trend of net profit for the Yeti Airline is increasing and for the Buddha Air it is decreasing but still Yeti Airline lags far behind the Buddha Air at the end of the projected year. The value of net profit for Buddha Air at the end of projected year is 4.38 times greater than that of Yeti Airline.
17. The trend of the both Yeti Airline and the Buddha Air are decreasing, but at the end of the projected year Return on Asset of Buddha Air is high than that of Yeti Airline. The value of Return on Asset for Buddha Air at the end of projected year is 4.73 times greater than that of Yeti Airline.

18. The trend of ROCE for the Buddha Air is increasing and for the Yeti Airline is decreasing. At the end of the projected year ROCE of Buddha Air is quite high than that of Yeti Airline, Yeti Airline lags far behind the Buddha Air. The value of ROCE for Buddha Air at the end of projected year is 6.25 times greater than that of Yeti Airline.
19. The trend of EPS for the Yeti Airline is increasing and for the Buddha Air it is decreasing but still Yeti Airline lags far behind the Buddha Air at the end of the projected year. The value of EPS for Buddha Air at the end of projected year is 38 times greater than that of Yeti Airline.
20. The coefficient of correlation between net profit and total sales of Buddha Air and Yeti Airline are positive so it indicates that net profit and total sales are positively related. Correlation coefficient of both the companies appeared smaller than six times the probable error which on the other side indicates that the net profit and total sales are not significantly associated.
21. The coefficient of correlation between net profit and net worth of Buddha Air and Yeti Airline are positive, which implies that the net profit and net worth are positively related. Correlation coefficient of both the companies appeared smaller than six times the probable error which indicates that the net profit and total sales are not significantly associated.
22. The coefficient of correlation between net profit and operating cost of Buddha Air and Yeti Airline are positive, which implies that the net profit and net worth are positively related. Correlation coefficient of both the companies appeared smaller than six times the probable error which indicates that the net profit and total sales are not significantly associated.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Nepal's economy is characterized by a low and fluctuating growth rate. Tourism contributes to economic growth and poverty alleviation, significantly. Nepal has a strong comparative advantage in tourism. However, the performance of the industry has remained, unsatisfactory. Tourism growth declined in 2000s in Nepal, significantly mainly because of conflict and security uncertainty.

The growth of domestic airlines lends a multiplier effect on the entire economy particularly in tourism and thus the sound financial health and vitality of the airlines company is quite essential. Financial analysis helps the firm to determine its financial position in order to identify the current strength and weakness and to suggest actions to correct its weakness. Through a careful analysis of financial performance organization can identify the opportunity to improve its performance and compete in the market.

This research briefly describes the scope of tourism in Nepal and the role of Aviation in promotion of tourism. The main objective of this study is to analysis the financial performance of Buddha Air and Yeti Airlines as airlines plays important role in promotion of Tourism by providing mountain flight and solving the means of transportation to various tourist destinations.

During the research work, extensive review of various literature books, previous thesis, and journal have been studied and consulted. As per the requirement, internet material from the relevant website was also considered. All these work are compiled in the second chapter.

Data used in this research is secondary data. Descriptive and analytical research method is applied to conduct the research. From the population sample of 15 Airlines in operation two private airlines are selected. Data used is collected from the finance department of respective companies.

Data relating to activities of the airlines companies has been collected and presented in bar diagrams, figures and tabular form to analyze and interpretate the study report in a logical and easy way. The data collected are analyzed using various financial and statistical tools like ratio analysis, standard deviation, correlation coefficient, trend analysis.

5.2 Conclusion

On the basis of the analysis and major findings of the fourth chapter following conclusion can be drawn:

The trend of revenue for both the Buddha air and Yeti Airlines are increasing. Although Buddha Air leads over Yeti Airlines by approx 2.3 times during Fiscal year 2002/03, the lead gradually tapers down and Yeti's revenues are equal to Buddha's in FY 06-07. This shows that Yeti Airlines has made considerable progress in its sales and marketing efforts to catch up with the market leader Buddha Air. An increase in the revenues from the year 2002/03 to 2006/07 is nearly double for both the Airlines.

In revenue to sales and admin expenses ratio terms, Buddha air lags in comparison to Yeti Airlines as the average ratio for as the former is 9.08 compared to the latter at 22.35. Yeti Airlines has increasing trend in operating cost.

The average of current ratio of both Buddha and Yeti are below the normal standard. Buddha Air has better liquidity solvency than Yeti Airlines as average current ratio of Buddha Air is higher than of Yeti Airlines. Yeti Air will find it more difficult to pay its current liabilities than the Buddha Air as the quick ratio of Buddha Air is higher than that of Yeti Airlines. Yeti has better trade credit management and shorter average collection period than Buddha Air as it has higher turnover ratio. The total assets turnover ratio of Buddha Air is higher than

the Yeti Air which implies that the Buddha Air is more efficient in managing and utilizing the assets than Yeti Air. When profitability ratio is considered Buddha Air has higher ROA, ROCE, ROE and EPS than the Yeti Airlines

The total net profit of the Yeti Airline is in increasing trend while for Buddha Air total net profit is in decreasing trend. Although the trend of the Yeti Airline is increasing it lags far behind the Buddha Air, even at the end of the projected year. The trend ROA of the both Yeti Airline and the Buddha Air are decreasing. Even at the end of the projected year the value of Return on Asset for Buddha Air is 4.73 times greater than that of Yeti Airline. The Return on Capital Employed of the Buddha Air is in increasing trend while for Yeti Airline it is in decreasing trend. At the end of the projected year ROCE of Buddha Air is quite high than that of Yeti Airline. Although the trend of the Yeti Airline is increasing it lags far behind the Buddha Air, even at the end of the projected year net profit of Buddha Air is quite high.

The coefficient of correlation between net profit and total sales of Buddha Air and Yeti Airline are positive so it indicates that net profit and total sales are positively related. Correlation coefficient of both the companies appeared smaller than six times the probable error which on the other side indicates that the net profit and total sales are not significantly associated. The coefficient of correlation between net profit and net worth, net profit and total sales are positively related but the relation is not significant. Even the relationship between the net profit and the operating cost are not significant

5.3 Recommendations

On the basis of the findings of the study, following recommendations can be made.

1. Revenue of both Buddha Air and Yeti Airline shows increasing trend. The increase in the Yeti Airline revenue is quite progressive as it has nearly doubled during the study period. So it is recommended to maintain the revenue status for both the airlines. However this growth needs to be factored out with inflation trends to really determine whether

the revenue growth is a factor of actual sales efforts or brought about by inflationary and general trends.

2. When the two are compared purely in revenue to operating cost Buddha air lags in comparison to Yeti Airlines. This can be the result of the efforts made by the Yeti Airline to increase the market share through sales increase. Otherwise increase in the operating cost which does not contribute to the increase in revenue should be avoided and only a optimum level of operating cost should be maintained.
3. Both the airlines exhibit lower than the optimum current ratios. But when compared to each other Buddha Air has higher current ratio than Yeti Airline. The pattern is not uniform however & has significant year to year fluctuations. This might lead to a liquidity crunch at the times where easy access to funds might be a question. Both the airlines are recommended to demonstrate better working capital management to avoid risk exposure & ensure better funds utilization.
4. Considering quick ratio or the acid test ratio Buddha Air is well placed in all the five years to cater to short term liabilities with the higher quick ratio than Yeti Airlines. It means that the large part of the current asset of the Yeti Airlines is used up in slow moving and unusable inventories and slow paying debt, which should be avoided.
5. Yeti has better trade credit management than Buddha Air as it has higher debtor turnover ratio. Yeti has shorter average collection period than Buddha Air, which implies prompt payment on the part of debtor to Yeti. The increase in collection period can either be due to firm policy to extend the credit term in order to maintain the customer or may be due to customer dissatisfaction toward the company. If the delay in collection is due to customer dissatisfaction the debt collector team of Buddha Air must perform well otherwise the debt may be converted to the bad debt and collection can be more complicated, which can lead to the loss.

6. The total assets turnover ratio of Buddha Air is higher than the Yeti Air which implies that the Buddha Air is more efficient in managing and utilizing the assets than Yeti Air. It indicates that the Buddha Air has utilized its available resources and present of idle capacity in a better way to generate maximum sales than compared to the Yeti Air. Yeti Air should make a proper balance of sales and assets to as to manage the asset well and generate the profit.
7. Buddha Air has higher gross profit margin than Yeti Airlines but if considered individually the gross profit margin of both the companies are declining over the period of study. This has resulted due to the high selling cost that is evident from the data. So both the companies should try to control its production cost and utilizing their current as well as fixed assets efficiently.
8. The average net profit margin ratio of Buddha Air is quite high than of Yeti Airlines over study period. So it can be said that Buddha Air can ensure adequate return to the owners. Yeti Air should try to increase its net profit as high net profit margin enables a firm to withstand adverse economic conditions when selling price is declining cost of production is rising and demand for product is falling.
9. The operating ratio of the Yeti Airlines is quite high than of Buddha Air. It Yeti Air should try to control its operating cost and increase the sales as Yeti Air has only a relatively small percentage share of sales available for meting financial liabilities like interest tax and dividends etc.
10. Profitability ratio of the Buddha Air is good from the return point of view as return on asset, capital employed, share holders' equity and earning per share of Buddha Air is higher than that of Yeti Airlines. All these implies that the Buddha Air is able to satisfied its share holders and able to run the company well as the earning of a satisfactory return is the most desirable objective of business. So, it is recommended that Yeti Airlines also should utilize long term funds of owner and the

creditors more efficiently so as to earn more return to its equity holders and satisfy its share holder.

11. Trend analysis of net profit, return on asset, share holders' equity and earning per share also support the fact that Yeti Airlines lag far behind Buddha Air in aspect of earning profit. So it is highly recommended to Yeti Airline to increase its sale by cutting the cost and utilizing the funds available in efficient way.

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ANNEX

Annex: 1A

Calculation of Standard Deviation and C.V of Revenue (in million) for Buddha Air

Year	Revenue (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	642	-350.8	123060.64
2003-04	1,047	54.2	2937.64
2004-05	988	-4.8	23.04
2005-06	1,052	59.2	3504.64
2006-07	1,235	242.2	58660.84
	$\Sigma X = 4,964$		$\Sigma (X - \bar{X})^2 = 188186.8$

$$\bar{X} = 992.8$$

$$\begin{aligned}\sigma &= \sqrt{\frac{\sum (X - \bar{X})^2}{N}} \\ &= \sqrt{\frac{188186.8}{5}} \\ &= \sqrt{37637.36} \\ &= 194\end{aligned}$$

$$\begin{aligned}\text{C.V} &= \frac{\sigma}{\bar{X}} \times 100 \\ &= \frac{194}{992.8} \times 100 \\ &= 19.54\%\end{aligned}$$

Annex: 2A
Calculation of Standard Deviation and C.V of Revenue (in million) for Yeti Airline

Year	Revenue (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	274	-355.4	126309.16
2003-04	367	-262.4	68853.76
2004-05	661	31.6	998.56
2005-06	635	5.6	31.36
2006-07	1,210	580.6	337096.36
	$\Sigma X = 3147$		$\Sigma(X - \bar{X})^2 = 533289.2$

$\bar{X} = 629.4$
 $\sigma = 326.58$
C.V = 51.89%

Annex: 3A
Calculation of Standard Deviation and C.V of Operating cost (in million) for Buddha Air.

Year	Operating Cost (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	74	-15.8	249.64
2003-04	91	1.2	1.44
2004-05	91	1.2	1.44
2005-06	88	-1.8	3.24
2006-07	105	15.2	231.04
	$\Sigma X = 449$		$\Sigma(X - \bar{X})^2 = 486.8$

$\bar{X} = 89.8$
 $\sigma = 9.86$
C.V = 10.99%

Annex: 4A
Calculation of Standard Deviation and C.V of Operating Cost(in million) for Yeti Airline

Year	Operating Cost (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	71	69.4	4816.36
2003-04	120	20.4	416.16
2004-05	146	-5.6	31.36
2005-06	159	-18.6	345.96
2006-07	206	-65.6	4303.36
	$\Sigma X = 702$		$\Sigma(X - \bar{X})^2 = 9913.2$

$\bar{X} = 140.4$

$\sigma = 44.52$

C.V = 31.71%

Annex: 5A
Calculation of Standard Deviation and C.V of current Ratio for Buddha Air

Year	Current Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	1.6	0.18	0.0324
2003-04	1.79	-0.01	0.0001
2004-05	1.36	0.42	0.1764
2005-06	2.43	-0.65	0.4225
2006-07	1.69	0.09	0.0081
	$\Sigma X = 8.87$		$\Sigma(X - \bar{X})^2 = 0.6395$

$\bar{X} = 1.774$

$\sigma = 0.3576$

C.V = 20.09

Annex: 6A
Calculation of Standard Deviation and C.V of current Ratio for Yeti Airline

Year	Current Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	1.21	0.45	0.2025
2003-04	1.91	-0.25	0.0625
2004-05	1.41	0.25	0.0625
2005-06	1.57	0.09	0.0081
2006-07	2.2	-0.54	0.2916
	$\Sigma X = 8.3$		$\Sigma(X - \bar{X})^2 = 0.6272$

$\bar{X} = 1.66$

$\sigma = 0.3542$

C.V = 21.34%

Annex: 7A
Calculation of Standard Deviation and C.V of quick Ratio for Buddha Air

Year	Quick Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	1.06	0.29	0.0049
2003-04	1.48	-0.13	0.0081
2004-05	0.98	0.37	0.1764
2005-06	1.90	-0.55	0.3481
2006-07	1.32	0.03	0.0441
	$\Sigma X = 6.74$		$\Sigma(X - \bar{X})^2 = 0.5826$

$\bar{X} = 1.35$

$\sigma = 0.341$

C.V = 25.26%

Annex: 8A
Calculation of Standard Deviation and C.V of quick Ratio for Yeti Airline

Year	Quick Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	0.32	0.03	0.0009
2003-04	0.49	-0.14	0.0196
2004-05	0.46	-0.11	0.0121
2005-06	0.17	0.18	0.0324
2006-07	0.33	0.02	0.0004
	$\sum X = 1.75$		$\sum (X - \bar{X})^2 = 0.0654$

$\bar{X} = 0.35$

$\sigma = 0.114$

C.V = 32.57%

Annex: 9A
Calculation of Standard Deviation and C.V of Debtor Turnover Ratio for Buddha Air

Year	Debtor Turnover Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	5.06	0.36	0.1296
2003-04	5.89	-0.47	0.2209
2004-05	5.83	-0.41	0.1681
2005-06	5.36	0.06	0.0036
2006-07	4.95	0.47	0.2209
	$\sum X = 27.1$		$\sum (X - \bar{X})^2 = 0.7431$

$\bar{X} = 5.42$

$\sigma = 0.3855$

C.V = 7.11%

Annex: 10A
**Calculation of Standard Deviation and C.V of Debtor Turnover Ratio for Yeti
 Airline**

Year	Debtor Turnover Ratio (X)	X - \bar{X}	(X- \bar{X}) ²
2002-03	8.5	4.66	21.7156
2003-04	8.47	4.69	21.9961
2004-05	13.15	0.01	0.0001
2005-06	16.6	-3.44	11.8336
2006-07	19.08	-5.92	35.0464
	$\sum X = 65.8$		$\sum (X- \bar{X})^2 = 90.5918$

\bar{X} = 13.16
 σ = 4.2565
 C.V = 32.34%

Annex: 11A
**Calculation of Standard Deviation and C.V of Total Asset Turnover Ratio for
 Buddha Air**

Year	Asset Turnover Ratio(X)	X - \bar{X}	(X- \bar{X}) ²
2002-03	0.3	0.13	0.0169
2003-04	0.31	0.12	0.0144
2004-05	0.46	0.03	0.0009
2005-06	0.48	0.05	0.0025
2006-07	0.62	0.19	0.0361
	$\sum X = 2.17$		$\sum (X- \bar{X})^2 = 0.0708$

\bar{X} = 0.43
 σ = 0.119
 C.V = 27.67%

Annex: 12A
Calculation of Standard Deviation and C.V of Total Asset turnover ratio for Yeti Airline

Year	Asset Turnover Ratio(X)	X - \bar{X}	(X- \bar{X}) ²
2002-03	0.48	-0.09	0.0081
2003-04	0.46	-0.07	0.0049
2004-05	0.39	0	0
2005-06	0.33	0.06	0.0036
2006-07	0.28	0.11	0.0121
	$\Sigma X = 1.94$		$\Sigma(X- \bar{X})^2 = 0.0287$

$\bar{X} = 0.39$

$\sigma = 0.0758$

C.V = 19.43%

Annex: 13A
Calculation of Standard Deviation and C.V of Current Asset Turnover Ratio for Buddha Air

Year	Current Asset Turnover Ratio(X)	X - \bar{X}	(X- \bar{X}) ²
2002-03	1.65	0.3300004	0.1089
2003-04	1.27	0.7100004	0.5041
2004-05	2.53	-0.5499996	0.3025
2005-06	2.16	-0.1799996	0.0324
2006-07	2.29	-0.3099996	0.0961
	$\Sigma X = 9.9$		$\Sigma(X- \bar{X})^2 = 1.044$

$\bar{X} = 1.98$

$\sigma = 0.4569$

C.V = 23.08%

Annex: 14A
Calculation of Standard Deviation and C.V of Current Asset Turnover Ratio
for Yeti Airline

Year	Current Asset Turnover Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	1.39	-0.65	0.4225
2003-04	0.65	0.09	0.0081
2004-05	0.7	0.04	0.0016
2005-06	0.47	0.27	0.0729
2006-07	0.47	0.27	0.0729
	$\Sigma X = 3.7$		$\Sigma(X - \bar{X})^2 = 0.578$

$\bar{X} = 0.74$

$\sigma = 0.34$

C.V = 45.95%

Annex: 15A
Calculation of Standard Deviation and C.V of Gross Profit Margin Ratio for
Buddha Air

Year	Gross Profit Margin Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	42	-4.4	19.36
2003-04	52	-14.4	207.36
2004-05	31	6.6	43.56
2005-06	31	6.6	43.56
2006-07	32	5.6	31.36
	$\Sigma X = 188$		$\Sigma(X - \bar{X})^2 = 345.2$

$\bar{X} = 37.6$

$\sigma = 8.31$

C.V = 22.1%

Annex: 16A
Calculation of Standard Deviation and C.V of Gross Profit Margin Ratio for Yeti Airline

Year	Gross Profit Margin Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	45	-8.6	73.96
2003-04	45	-8.6	73.96
2004-05	32	4.4	19.36
2005-06	34	2.4	5.76
2006-07	26	10.4	108.16
	$\Sigma X = 182$		$\Sigma(X - \bar{X})^2 = 281.2$

$\bar{X} = 36.4$
 $\sigma = 7.5$
C.V = 20.6%

Annex: 17A
Calculation of Standard Deviation and C.V of Net Profit Margin Ratio for Buddha Air

Year	Net Profit Margin Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	3	-5	25
2003-04	19	11	121
2004-05	6	-2	4
2005-06	4	-2	4
2006-07	8	0	0
	$\Sigma X = 40$		$\Sigma(X - \bar{X})^2 = 154$

$\bar{X} = 8$
 $\sigma = 5.76$
C.V = 72.02%

Annex: 18A
Calculation of Standard Deviation and C.V of Net Profit Margin Ratio for Yeti Airline

Year	Net Profit Margin Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	-2	2.362	5.579
2003-04	2	-1.638	2.683
2004-05	0.53	-0.168	0.028
2005-06	0.54	-0.178	0.032
2006-07	0.74	-0.378	0.1429
	$\Sigma X = 1.81$		$\Sigma (X - \bar{X})^2 = 8.4649$

$\bar{X} = 0.362$
 $\sigma = 1.30$
C.V = 3.59%

Annex: 19A
Calculation of Standard Deviation and C.V of Operating Expenses Ratio for Buddha Air

Year	Operating Expenses Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	12	-2.70421575	6.76
2003-04	9	0.29578425	0.16
2004-05	9	0.29578425	0.16
2005-06	8	1.29578425	1.96
2006-07	9	0.29578425	0.16
	$\Sigma X = 47$		$\Sigma (X - \bar{X})^2 = 9.2$

$\bar{X} = 9.4$
 $\sigma = 1.356$
C.V = 14.42%

Annex: 20A
Calculation of Standard Deviation and C.V of Operating Expenses Ratio for Yeti Airline

Year	Operating Expenses Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	26	-1.4	1.96
2003-04	33	-8.4	70.56
2004-05	22	2.6	6.76
2005-06	25	-0.4	0.16
2006-07	17	7.6	57.76
	$\Sigma X = 123$		$\Sigma (X - \bar{X})^2 = 137.2$

$\bar{X} = 24.6$
 $\sigma = 5.24$
C.V = 21.29%

Annex: 21A
Calculation of Standard Deviation and C.V of Return on Total Asset for Buddha Air

Year	Return on Total Asset Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	7	2.2	4.84
2003-04	15	-5.8	33.64
2004-05	7	2.2	4.84
2005-06	8	1.2	1.44
2006-07	9	0.2	0.04
	$\Sigma X = 46$		$\Sigma (X - \bar{X})^2 = 44.8$

$\bar{X} = 9.2$
 $\sigma = 2.99$
C.V = 32.54%

Annex: 22A
**Calculation of Standard Deviation and C.V of Return on Total Asset for Yeti
 Airline**

Year	Return on Total Asset Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	5	0	0
2003-04	7	-2	4
2004-05	5	0	0
2005-06	4	1	1
2006-07	4	1	1
	$\Sigma X = 25$		$\Sigma(X - \bar{X})^2 = 6$

$\bar{X} = 5$
 $\sigma = 1.095$
 C.V = 21.9%

Annex: 23A
**Calculation of Standard Deviation and C.V of Return on Capital Employed
 for Buddha Air**

Year	Return on Capital Employed Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	6	5.8	33.64
2003-04	17	-5.2	27.04
2004-05	17	-5.2	27.04
2005-06	8	3.8	14.44
2006-07	11	0.8	0.64
	$\Sigma X = 59$		$\Sigma(X - \bar{X})^2 = 102.8$

$\bar{X} = 9.2$
 $\sigma = 4.53$
 C.V = 38.43%

Annex: 24A
Calculation of Standard Deviation and C.V of Return on Capital Employed
for Yeti Airline

Year	Return on Capital Employed Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	7	0.6	0.36
2003-04	11	-3.4	11.56
2004-05	8	-0.4	0.16
2005-06	7	0.6	0.36
2006-07	5	2.6	6.76
	$\Sigma X = 38$		$\Sigma (X - \bar{X})^2 = 19.2$

$\bar{X} = 7.6$

$\sigma = 1.96$

C.V = 25.78%

Annex: 21A
Calculation of Standard Deviation and C.V of Return on Share Holder's
Equity for Buddha Air

Year	Return on Share Holder's Equity Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	2.58	-1.62	2.6244
2003-04	1.05	-0.09	0.0081
2004-05	0.44	0.52	0.2704
2005-06	0.3	0.66	0.4356
2006-07	0.44	0.52	0.2704
	$\Sigma X = 4.8$		$\Sigma (X - \bar{X})^2 = 3.6089$

$\bar{X} = 0.96$

$\sigma = 0.8495$

C.V = 88.50%

Annex: 22A
Calculation of Standard Deviation and C.V of Return on Share Holder's Equity for Yeti Airline

Year	Return on Share Holder's Equity Ratio (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	0.17	-0.03	0.0009
2003-04	0.19	-0.05	0.0025
2004-05	0.16	-0.02	0.0004
2005-06	0.12	0.02	0.0004
2006-07	0.08	0.06	0.0036
	$\Sigma X = 0.72$		$\Sigma (X - M)^2 = 0.0078$

$\bar{X} = 0.14$

$\sigma = 0.04$

C.V = 28.57%

Annex: 23A
Calculation of Standard Deviation and C.V of Earning Per Share for Buddha Air

Year	Earning Per Share (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	30	91.5	8372.25
2003-04	292.62	-171.12	29282.054
2004-05	80.38	41.12	1690.8544
2005-06	67.53	53.97	2912.7609
2006-07	137.96	-16.46	270.9316
	$\Sigma X = 607.49$		$\Sigma (X - \bar{X})^2 = 42528.85$

$\bar{X} = 121.5$

$\sigma = 92.22$

C.V = 75.91%

Annex: 24A
**Calculation of Standard Deviation and C.V of Earning Per Share for Yeti
 Airline**

Year	Earning Per Share (X)	X - \bar{X}	(X - \bar{X}) ²
2002-03	-1.55	3.5	12.25
2003-04	5.70	-3.75	14.0625
2004-05	2.24	-0.29	0.0841
2005-06	1.57	0.38	0.1444
2006-07	1.78	0.17	0.0289
	$\Sigma X = 9.74$		$\Sigma (X - \bar{X})^2 = 26.5699$

$$\bar{X} = 1.95$$

$$\sigma = 2.305$$

$$C.V = 108.20\%$$

B) Trend Analysis

Annex 1B

Trend analysis of net profit for Buddha Air

Year	Net profit(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	210	-2	4	-420	861.8
2003-2004	2,041	-1	1	-2041	855.9
2004-2005	562	0	0	0	850
2005-2006	472	1	1	472	844.1
2006-2007	965	2	4	1930	838.2
	$\Sigma y = 4,250$		$\Sigma x^2 = 10$	$\Sigma xy = -59$	

$$N = 5$$

$$a = \frac{\Sigma y}{N} = 850$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = -5.9$$

Forecasted Trend value

Year	x	Yc = a + bx
2007-2008	3	832.3
2008-2009	4	826.4
2009-2010	5	820.5
2010-2011	6	814.6
2011-2012	7	808.7

The equation of straight line trend is $Yc = a + bx$

$$Yc = 850 - 5.9x$$

Annex 2B

Trend analysis of net profit for Yeti Airline

Year	Net profit(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	-42	-2	4	84	-0.4
2003-2004	89	-1	1	-89	20.3
2004-2005	35	0	0	0	41
2005-2006	34	1	1	34	61.7
2006-2007	89	2	4	178	82.4
	$\Sigma y = 205$		$\Sigma x^2 = 10$	$\Sigma xy = 207$	

$$N = 5$$

$$a = \frac{\Sigma y}{N} = 41$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = 20.7$$

Forecasted Trend value

Year	X	Yc = a + bx
2007-2008	3	103.1
2008-2009	4	123.8
2009-2010	5	144.5
2010-2011	6	165.2
2011-2012	7	185.9

The equation of straight line trend is $Yc = a + bx$

$$Yc = 41 + 20.7x$$

Annex 3B

Trend analysis of ROA for Buddha Air

Year	ROA(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	7	-2	4	-14	9.8
2003-2004	15	-1	1	-15	9.5
2004-2005	7	0	0	0	9.2
2005-2006	8	1	4	8	8.9
2006-2007	9	2	1	18	8.6
	$\sum y = 46$		$\sum x^2 = 10$	$\sum xy = -3$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 9.2$$

$$b = \frac{\sum xy}{\sum x^2} = -0.3$$

Forecasted Trend value

Year	X	Yc = a + bx
2007-2008	3	8.3
2008-2009	4	8
2009-2010	5	7.7
2010-2011	6	7.4
2011-2012	7	7.1

The equation of straight line trend is $Yc = a + bx$

$$Yc = 9.2 - 0.3x$$

Annex 4B

Trend analysis of ROA for Yeti Airline

Year	ROA(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	5	-2	4	-10	6
2003-2004	7	-1	1	-7	5.5
2004-2005	5	0	0	0	5
2005-2006	4	1	1	4	4.5
2006-2007	4	2	4	8	4
	$\sum y = 25$		$\sum x^2 = 10$	$\sum xy = -5$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 5$$

$$b = \frac{\sum xy}{\sum x^2} = -0.5$$

Forecasted Trend value

Year	X	Yc = a + bx
2007-2008	3	3.5
2008-2009	4	3
2009-2010	5	2.5
2010-2011	6	2
2011-2012	7	1.5

The equation of straight line trend is $Yc = a + bx$

$$Yc = 5 - 0.5x$$

Annex 5B

Trend analysis of ROCE for Buddha Air

Year	ROCE(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	6	-2	4	-12	11.6
2003-2004	17	-1	1	-17	11.7
2004-2005	17	0	0	0	11.8
2005-2006	8	1	1	8	11.9
2006-2007	11	2	4	22	12
	$\sum y = 59$		$\sum x^2 = 10$	$\sum xy = 1$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 11.8$$

$$b = \frac{\sum xy}{\sum x^2} = 0.1$$

Forecasted Trend value

Year	X	Yc = a + bx
2007-2008	3	12.1
2008-2009	4	12.2
2009-2010	5	12.3
2010-2011	6	12.4
2011-2012	7	12.5

The equation of straight line trend is $Yc = a + bx$

$$Yc = 11.8 + 0.1x$$

Annex 6B

Trend analysis of ROCE for Yeti Airline

Year	ROCE(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	7	-2	4	-14	9.2
2003-2004	11	-1	1	-11	8.4
2004-2005	8	0	0	0	7.6
2005-2006	7	1	1	7	6.8
2006-2007	5	2	4	10	6
	$\sum y = 38$		$\sum x^2 = 10$	$\sum xy = -8$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 7.6$$

$$b = \frac{\sum xy}{\sum x^2} = -0.8$$

Forecasted Trend value

Year	X	Yc = a + bx
2007-2008	3	5.2
2008-2009	4	4.4
2009-2010	5	3.6
2010-2011	6	2.8
2011-2012	7	2

The equation of straight line trend is $Yc = a + bx$

$$Yc = 7.6 - 0.8x$$

Annex 7B

Trend analysis of EPS for Buddha Air

Year	EPS(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	30	-2	4	-60	123.132
2003-2004	291.62	-1	1	-291.62	122.315
2004-2005	80.38	0	0	0	121.5
2005-2006	67.53	1	1	67.53	120.681
2006-2007	137.96	2	4	275.92	119.864
	$\sum y = 607$		$\sum x^2 = 10$	$\sum xy = -8.17$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 121.498$$

$$b = \frac{\sum xy}{\sum x^2} = -0.817$$

Forecasted Trend value

Year	x	Yc = a + bx
2007-2008	3	119.047
2008-2009	4	118.23
2009-2010	5	117.413
2010-2011	6	116.596
2011-2012	7	115.779

The equation of straight line trend is $Y_c = a + bx$

$$Y_c = 121.498 - 0.817x$$

Annex 8B

Trend analysis of EPS for Yeti Airline

Year	EPS(y)	X = t-2004	x ²	xy	Yc = a + bx
2002-2003	-1.55	-2	4	3.1	1.494
2003-2004	5.7	-1	1	-5.7	1.747
2004-2005	2.24	0	0	0	1.948
2005-2006	1.57	1	1	1.57	2.253
2006-2007	1.78	2	4	3.56	2.506
	$\sum y = 10$		$\sum x^2 = 10$	$\sum xy = 2.53$	

$$N = 5$$

$$a = \frac{\sum y}{N} = 2$$

$$b = \frac{\sum xy}{\sum x^2} = 0.253$$

Forecasted Trend value

Year	x	Yc = a + bx
2007-2008	3	2.759
2008-2009	4	3.012
2009-2010	5	3.265
2010-2011	6	3.518
2011-2012	7	3.771

The equation of straight line trend is $Y_c = a + bx$

$$Y_c = 2 + 0.253x$$

Correlation Coefficient

Annex no. 1C

Correlation between net profit and total sales of Buddha Air

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03	210	6421	-640	-3511	2247040	409600	12327121
2003-04	2041	10474	1190	542	644980	1416100	293764
2004-05	562	9882	-288	-51	14688	82944	2601
2005-06	472	10528	-378	596	-225288	142884	355216
2006-07	965	12356	116	2424	281184	13456	5875776
	-	-	-	-	2962604	2064984	18854478

$$\begin{aligned}
 r &= \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}} \\
 &= \frac{2,960,434}{\sqrt{2,064,984} \sqrt{2,064,984}} \\
 &= \frac{2,960,434}{(1437.753108)(1437.753108)} \\
 &= \frac{2,960,434}{6242957.899} \\
 &= 0.47
 \end{aligned}$$

$$r^2 = 22.48\%$$

$$P.E = 0.6745 \times \frac{1-r^2}{N}$$

$$= 0.6745 \times \frac{1 - .2248}{2.24}$$

$$= 0.6745 \times .2334$$

$$= 0.2324$$

$$6 \text{ P.E} = 1.4$$

Annex 2C

Correlation between net profit and total sales of Yeti Airlines

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03	-42	717	-83	-690.2	57287	6889	476376.04
2003-04	89	1199	48	-208.2	-9994	2304	43347.24
2004-05	35	1460	-6	52.8	-317	36	2787.84
2005-06	34	1591	-7	183.8	-1287	49	33782.44
2006-07	89	2069	48	661.8	31766	2304	437979.24
	-	-	-	-	77456	11582	994273

$$r = 0.57$$

$$r^2 = 32.49\%$$

$$\text{P.E} = 0.2044$$

$$6 \text{ P.E} = 1.226$$

Annex 3C

Correlation between net profit and net worth of Buddha Air

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03	210	336	-640	-2082.6	1332864	409600	4337222.8
2003-04	2041	2377	1190	-41.6	-49546	1418481	1730.56
2004-05	562	2490	-288	71.4	-20563	82944	5097.96
2005-06	472	3928	-378	1509.4	-570553	142884	2278288.4
2006-07	965	2962	116	543.4	62491	13225	295283.56
	-	-	-	-	754693	2067134	6917629

$r = 0.20$

$r^2 = 4\%$

$P.E = 0.2891$

$6 P.E = 1.734$

Annex 4C

Correlation between net profit and net worth of Yeti Airline

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03				-		6889	1622566.4
	-42	998	-83	1,273.80	105,725		
2003-04	89	1,528	48	-743.8	-35,702	2304	553238.44
2004-05	35	1,552	-6	-719.8	4,319	36	518112.04
2005-06	34	2,212	-7	-59.8	419	49	3576.04
2006-07	89	5,069	48	2,797.20	134,266	2304	7824327.8
	-	-	-	-	209026	11582	10521821

$r = 0.60$

$r^2 = 36\%$

$P.E = 0.1931$

$6 P.E = 1.589$

Annex 5C

Correlation between Net profit and Operating cost Buddha Air

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03	210	717	-640	-690.2	57,287	6889	476376.04
2003-04	2,041	1,199	1190	-208.2	-9,994	2304	43347.24
2004-05	562	1,460	-288	52.8	-317	36	2787.84
2005-06	472	1,591	-378	183.8	-1,287	49	33782.44
2006-07	965	2,069	116	661.8	31,766	2304	437979.24
	-	-	-	-	77456	11582	994273

$r = 0.44$

$r^2 = 19.36\%$

$P.E = 0.241$

$6 P.E = 1.45$

Annex 6C

Correlation between Net profit and Operating cost of Yeti Airline

Year	(X)	(y)	(X)	(y)	(XY)	(X ²)	(Y ²)
2002-03				-		6889	1622566.4
	-42	998	-83	1,273.80	105,725		
2003-04	89	1,528	48	-743.8	-35,702	2304	553238.44
2004-05	35	1,552	-6	-719.8	4,319	36	518112.04
2005-06	34	2,212	-7	-59.8	419	49	3576.04
2006-07	89	5,069	48	2,797.20	134,266	2304	7824327.8
	-	-	-	-	209026	11582	10521821

$r = 0.72$

$r^2 = 51.84\%$

$P.E = 0.1422$

$6 P.E = 0.8654$