

# **CASH MANAGEMENT OF NEPAL TELECOM (NTC)**

**A Thesis**

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## RECOMMENDATION

This is to certify that the thesis:

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has been prepared as approved by this department in the prescribed format of faculty of management. This thesis is forwarded for examination.

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## DECLARATION

I hereby declare that the work reported in this thesis entitled **Cash Management of Nepal Telecom (NTC)** submitted to the office of the dean, faculty of management, Tribhuvan University, is my original work done for the partial fulfillment of the requirements for the Degree of Master's of Business Studies (MBS) under the supervision of Prof. Dr. Kamal Das Manandhar, the Assistant Dean and Mr. Pitri Raj Adhikari, Lecturer of Shankar Dev Campus.

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Last but not least, I do not want to state that this research report is completely and perfectly satisfactory. There may be some shortcomings. I am responsible for all these shortcomings. I am also thankful to my parents for their full help and support in each and every steps of my life. My every achievement is possible because of their effort, help and blessings.

June, 2011

Hemanta Sharma

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## ABBREVIATION

UTL	:	United Telecom Limited
NTC	:	Nepal Telecommunication Corporation
NPV	:	Net Present Value
EMU	:	European Money Union
RD	:	Research and Development
F/Y	:	Fiscal Year
TIE	:	Time Interest Earned
EBIT	:	Earning Before Interest and Tax
ROI	:	Return on Investment
CFOA	:	Cash Flow from Operating Activities
CFIA	:	Cash Flow from Investing Activities
CFFA	:	Cash Flow from Financing Activities
PE	:	Probable Error
PSTN	:	Public Switched Telephone Network

## CHAPTER - ONE

### INTRODUCTION

#### 1.1 Background of the Study

The study of cash management occupies an important place in the Nepalese industries. It has never received so much of attention as in the recent years mainly due to the growth in the number and size of industries on the one hand, and on the other to some extent, increase in the number of business failures. History indicates that useful theoretical developments have not been uniform across all areas of financial management. In some areas, these developments are many and varied: while in other areas, they are only a few since the thirties there has been a concentrated effort by monetary economists to analyze the corporate cash management within the context of liquidity. These models have been employed to point out liquidity position of the industries. Keynes (1936) suggests that the real world is imperfect and firms hold cash for transactions as a precaution against unanticipated expenses and for speculative purpose. In the fifties further studies were made on elasticity of cash giving focus on the economies of scale. Baumol (1952) and Tobin (1956) suggested that there are economies of scale in cash holding while Friedman (1959) did not observe the same. The other studies on demand for cash by firms either supported Baumol and Tobin or Friedman. Among others Frazen (1964) and Pradhan (1986) supported Baumol and Tobin while Meltzer (1963), Vogel and Maddala (1967) supported Friedman. Those who supported Baumol and Tobin found that under moderately restrictive assumptions, optimal transactions cash balance is very less in proportion to sales and those who supported very less in proportion to sales and those who supported Friedman found that the elasticity of cash with respect to sales is about or more than unity. All the coefficients have the predicted signs and show the importance of the concept of cost of capital derived by Miller and Modigliani (1966).

Every business wishes to maintain cash for the operation of their business but the requirement of cash is likely to be different according to nature and size of transaction. However, companies keep certain percentage of cash on the basis of total assets. Kester (1986) compared the cash holding of Japanese and US firms and showed that the US firms held only 8.6 percentages of their assets in cash, whereas in Japan the average cash balance on total assets was 18.7 percent. The US non-financial

and non utility corporation held \$443 billion in cash and cash equipments, which represents about 21 percentage of total assets. Opler et al. (1999) and Dittmar et al. (2002) revealed the median cash ratio for French firms to be 11.1 percent for British firms 8.1 percent and for US firm 6.4 percent. Kalcheva and Lins (2003) suggested that companies held an average of 16 percent of their total assets in cash or cash equivalent. Ferreirar and Vilela observed an average cash ratio of 15 percent and Guney et al. observed an average cash ratio of 14 percent. French companies held large fractions of total assets in cash, which was more than the corresponding level of cash of American and British companies, French firms held an average of 12.3 percent of their total assets in cash whereas the British companies held 10.3 percentages.

According to Ozkan (2004), managerial ownership growth opportunities play an important role in determining corporate cash holdings in the UK. Firms that operate in more intensely competitive sectors hold more cash than firms that are protected from competition (Maxwell, 2005). The need to hold cash will be greatest in firms that have both substantial expected investment needs and high uncertainty about the needs. Firms that have large but predictable investment needs can get away without setting aside substantial cash balances (Campello, 2007). Thus, the need for sound cash management has thus become greater in recent years.

Maintaining appropriate level of cash within the organization is fundamental towards the smooth operation of firms. Managers have a tendency to hold large proportion of firms' assets in the form of cash and cash equivalent in order to reinvest on other physical assets, payments to stock holder and to keep cash inside the firm (Almeida et al. 2002). The size of a cash balance which a firm maintains is characterized by its policies, regarding capital structure, working capital requirements, cash flow management, dividend payments, investments and assets management. In the literature, the impact of these factors is normally analyzed under the framework of Trade of Model, Myers' Pecking Order Theory and Jensen's Free Cash Flow Theory, for example Opler et al. (1999), Ozkan and Ozkan (2002) and Ferraira and Vilela (2004). In the Nepalese context, the determinant of corporate cash holding is not known. The present study therefore focuses on determining the level of corporate cash holding of Nepal Telecom.

The term cash has a meaning according to the purpose for which it is used and persons with varying branches of knowledge convey various meanings of cash. If you ask with economist, he considers cash as the means to satisfy human wants. But according to lawyer cash is the legal tender money issued by a determinate authority. However, over concern of the meaning of the cash is to look from a view point of the balance sheet, cash is an asset constituting the most liquid item among all the assets.

Cash management involves managing the money of the firms/industries to maximize cash availability and income on any idle fund. All on end, the function starts when a subscriber writes cheque to pay the firm on its account receivable. The function ends when suppliers, an employee the government realize collected accrual' (Van Horn, 2005).Cash is lifeblood of the business, which is most important component of the working capital. It is the most liquid assets having vital daily operations of the firm (Chandra, 1984). Cash is a common denominator to which all current assets can be reduced because the other major liquid, that is receivable and inventory get eventually converted into cash, (Khan and Jain 1999).Cash management is the process of knowing when where and how your cash needs will occur. It is also a way of knowing what the best source for meeting additional cash need.

The first telecom service was established in Nepal during regime of Chandra Samser in the year 1972 B.S. It was the first time and good opportunity for Nepalese people to transmit message from Kathmandu to Birgunj. However, no remarkable development has been found until another eight years. After eight years new telephone line connecting Kathmandu to Gaur was installed in 1980 B.S. In the same way NT is providing mobile phone services (GSM), sky phone mobile services, C-phone services, prepaid calling card, internet.

While providing services Nepal Telecom has adopted two different way of collection process.

- (a) Collection through Counters
- (b) Collection through Banks

#### **(a) Collection through Counters**

In smaller exchanges collection being done mutually but in almost 50 places collection of cash has been done through online cash collection process, which was for better efficiency than mutual cash collection. For the sake of increasing efficiency

Nepal Telecom is collecting its revenue online, its exchanges having more than 1000. (NT 2000). So telecom has made its cash collection through different counter which is very convenient in cash collection process. It is the good way of collecting cash because the cash will be collected more as usual.

**(b) Collection through Banks**

Nepal telecom has started collection its revenue through banks also. Himalayan bank, NCC Bank Ltd, Siddhartha Bank Ltd, Nepal SBI Bank Ltd, Bank of Asia Nepal Ltd, Nepal Investment Bank Ltd, Global Bank Ltd, NMB Bank Ltd, Laxmi Bank Ltd, Bank of Kathmandu Ltd, Machhapuchre Bank Ltd, Siddhartha Development Bank are the bank from where the subscriber is able to pay their dues as per their convenience. These all banks can take different modes of payment for collection like:

- By payments on Nepal Telecom customer order through the internet.
- By use of cash payment at the counters of the bank
- By use of ATM cards
- Payments through SMS

Bank shall send request file, with telephone numbers to Nepal Telecom, in answer they will get a response file which contains bill amount and outstanding amount of the requested valid telephone numbers.

The subscriber can treat bank counters as NT collection counters. The subscriber need to have to be an account holder in banks similar, indifferent to subscriber of any bank account holder.

Payment via bank has added on facility to the subscribers, i.e during the payment the customer can give his/her mobile number. Once the payment reaches Nepal Telecom a sms notification shall be sent to the given mobile number of the successful payment.

Likewise in 50 places, different banks visit company premises to collect the cash. And these banks are providing interest in the range of 2.50 to 4.25 percent per annum. Now, Nepal Telecom has adopted different strategies which deserve appreciation in revenue collection such as advance payment facility, weekly bill payment facility for high paying subscriber, anywhere paying facility in Kathmandu valley. Presently, Nepal Telecom has made a policy to disconnect telephone line for that subscriber who does not pay in time (3.5% fine) that generates excess cash to the company.

### **Some incentive packages provided by the Nepal Telecom to the subscribers**

Package is a set of items or ideas that must be bought or accepted together. As per the increment in the services provided by the telecom it is providing different types of incentive packages to its subscriber. This is the one good way for attracting its new subscriber and sustaining its old subscriber. The company is providing such kinds of packages to sustain in the competitive market. This is the age of competition. The companies which are not able to compete the current market they may not sustain in the market.

In the case of Nepal Telecom, it is only the company whose liquidity position is so good, it is in high surplus, so it does not matter to provide the incentive packages to its subscriber. In the starting period of its establishment, the service s change is too high but the condition does not remain same. It is highly profitable company now. The service charge changes before in various sector is low in comparison to its establishment period. The incentive packages provided by the company are given below:-

- The connection deposit amount has been Rs. 1500 from the present rate Rs. 3000 for PSTN services.
- The connection expenses have been Rs. 320 (excluding tax) from the present amount Rs. 900 in new connection of PSTN.
- In GSM mobile service it has been Rs. 1.50 (excluding tax) per minute in MMS Service.
- In GSM mobile service it has been Rs. 2 (excluding tax) per minute in video call.

Since 2067.11.1 telephone charge through excess code 1424 has been promoted discount to the following countries:

- Cyprus, Sweden, Hungary, Finland Rs. 8 per minute.
- Germany, Netherland, Spain, Denmark Rs. 10 per minute.
- Norway, Belgium, Switzerland Rs. 15 per minute
- The charge has been Rs. 12 per minute in Bahrain, Iraq, Iran, Israel, Kubait, Lebanon, Qatar, Saudi Arabia and UAE through excess code 1425.
- In the Internet lease and Fiber band with lease provided from the company it has been proved 30 percent discount.

## **1.2 Statement of the Problem**

The need for the studying the demand for cash has been stimulated by Baumol (1952) Tobin (1950) and Friedman (1959). Baumol and Tobin observed that transaction elasticity of cash balance is 0.5 and there exists inverse relation between interest rates and the demand for cash whereas Friedman observed permanent income elasticity of 1.8. The effect of interest rates on the demand for money was in expected direction but was too small to be statistically significant. Friedman concluded that the demand for cash is not statistically sensitive to change in the rate of interest. Ben-zeion (1974) recommended that money demand elasticity lies between 0.866 and 0.889, suggesting some economies of scale in holding money. Sagan (1955) pointed out that the level of operational cash needs depends primarily on the scope of the business and its types. Generally, the large cash balance is associated with a higher level of sales. He observed that many corporations employ the rule of thumb to determine the cash size to be maintained in the business. Sagan however realized the need for maintaining cash and warned that it could vitally affect the health of the company. Most of the industries of Nepal are in huge crisis. Some of them are liquidated, some are privatized and some are in the process of privatization. At present in the sector of communication, Nepal telecom is the largest organization in the country with high capital investment. Before some years although Nepal Telecom was enjoying almost full monopoly in the telecommunication sector. In present it is facing market competition due to the other telecommunication service providers like Ncell and UTL. Now Ncell, UTL and Nepal Telecom have high competition for providing telecommunication service. The management of these must focus on implementation of effective and appropriate action plan strategies and control mechanisms.

One of the areas of cash management is to study the position of cash and its different component by size structure proportion and trend. The study of cash position and structure has been stimulated by Kim et al. (1998) and Harford (1999). They observed that some of the largest companies in the US (Such as Ford, General motors & IBM) each held more than \$10 billion of cash and equivalents on their balance sheets in 1994. Similarly, industrial firms in the US hold a substantial portion of their total assets in cash and marketable securities. For example approximately 8 percent of firms total assets are comprised of cash and short term investment. However, the size

of investment in cash by the Nepalese enterprises in recent year is not known. This study, therefore, attempts to indicate the size of investment in cash in Nepal Telecom.

The effect of cash holding on financial position of the firm is an important area of study to analysis the firms performance. Study on cash holding and financial performance has been recognized by Mikkelson and Partch (2002). The study reveals that operating performance of holders of large amounts of cash is greater than the performance of firms that had transitory large holding of cash. Considering, the effect of cash on financial position, this study wants to test, the effect of cash holding on financial position of Nepal Telecom.

The study attempts to have an insight over the problem of cash management of Nepal Telecom. They are:

- What is the status of cash management in NTC?
- What is the liquidity position of the company?
- Is the company able to trade liquidity and profitability in order to increase profit?
- What is the relationship between and among influencing variable of cash management?
- What factors affect the size of investment in cash in Nepal Telecom?
- What is the effect of cash holding on financial position of the industry?

### **1.3 Objectives of the Study**

Nepal Telecom is the large-scale enterprises which is basic infrastructures for the development of nature. Without communication, corporation industrialization and development process is impossible. The major objectives of the study is to examine the management of cash of Nepal Telecom. Therefore, the basic objectives are as follows:

- To examine and critically analyze the cash management practices in Nepal Telecom.
- To explore the liquidity position of the company.
- To determine the profitability condition of the company.
- To assess the effect of cash holding on financial position of the firm.

#### **1.4 Organization of the Study**

This study will be divided into five different chapters. They are:

Chapter-I: Introduction

This chapter contains the background of the study, statement of the problem, objective of the study and focus of the study.

Chapter-II Review of literature

It consists of the review of concept and previous studies made on the subject.

Chapter-III Research Methodology

This chapter covers research design, sample, sources of data, data collection procedure, analytical tools and others.

Chapter-IV Presentation and Analysis

This chapter deals with presentation of related data collected from different sources then analyze them to reach closer of the actual result by using financial and statistical tools and techniques.

This is the final part of the study. This chapter consist summary of the overall study, conclusion from the analysis of data and put forward recommendation to impose the existing situation.

Beside this, Appendix and Bibliography are also included at the end of this study.

## **CHAPTER -TWO**

### **THEORETICAL FRAMEWORK & LITERATURE REVIEW**

This chapter begins with the conceptual background of cash management and its various aspects of the Nepal telecom. In this connection, it presents how corporate cash management is dealt with and how corporate cash holding is determined. In addition it discusses the cash demand function including the effect of cash holding on financial position of the industry. While doing so, an attempt has been made to identify how these various aspects have been approached by different authors. The chapter has been divided into four sections. Section one deals with a conceptual background section two deals with firm specific characteristics that influence and holding decision. Section three provides review of empirical works on cash management and section four deals with concluding remarks.

#### **Section -1**

##### **2.1 Theoretical Framework**

Cash constitute the most readily acceptable item of current assets. It includes currencies, coins, notes, credit cards, cash cards, cheques and also some near cash item such as marketable securities, bank time deposit, demand deposit, treasury bills, commercial paper, marketable securities and money market accounts. Business firms like individuals hold their “cash” mostly in the form of some kind of an account that earn interest in a financial institution (Weston and Copeland, 1991). Cash management is defined as managing the money of the firm in order to maximize cash availability and interest income on any idle funds. All one end the function starts when a subscriber writes check to pay the firm on its account receivable. The function ends when a supplier, an employee or the government realizes the collected funds from the firm on an account payable or arrival. All activities between these two points fall within the scope of cash management. Cash and other benefits serve as smooth operation of the firm. Cash management has achieved an extremely crucial role with the maturity and continuity of the business enterprises. No one can deny that management involves cash whether it is business management or human resource management (Bajracharya, 1980). Since cash is an unproductive asset, cash reserves are often held in the form of liquid short term investment. Inefficient use of cash

ultimately reduces the firm's profitability. Inadequate levels of cash can preclude a firm from meeting its financial obligations as they become due. Excess level of cash ties up capital and reduces the firm/industries return on assets. On the other hand the unavailability of cash can become quite expensive to the company-in the term of cost of borrowing as well as the inability to operate most economically, efficiently and effectively. Management that maximize share holder wealth should set the firms cash holding at a level such that the marginal benefit of cash holding equals the marginal cost of these holding.

## **2.2 Importance of Cash Management**

Cash management is important than other current assets because it is used to pay the industries obligations, to support for the continuous operation of firms transaction and to grab business opportunities. It is concerned with managing of cash inflow, outflow and cash balance. Due to difficulties to predict cash flow accurately, firm gives emphasis on cash management. Beside, this cash shortage will disrupt the industries trading activities and excess cash creates higher capital cost, which generates least productive assets. Cash management took on increased importance in short term investment raised the opportunity cost of holding cash balance. Even with the lower rates short term investment raised the opportunity cost of holding cash balance. Even with the lower rates, managing cash will remain important given the active market for takeovers (Weston and Copeland, 1990). Almost all activities of business are concerned with cash and it affects the enterprises financial position, risk, performance and value. Management prefers holding cash because it increases their option (Servaes, 2003). One of the key roles of corporate management is to wisely reinvest the cash that the business generates to enhance profit (subramanian, 2005). Today all segments of organizational activities recognize the important of cash management. If some of the departments are handled independently without consideration of their implication for cash management, the confliction interest of those department are bound to create serious problem. The study of cash management is therefore considered as an integrated approach to management science.

## **2.3 Objectives of Cash Management**

Cash management focuses on making the transformation process of the business work smoothly. To accomplish this, the business manager should be aware of the objective of cash management, which are to control and track cash flows: optimize sources and

use of cash; maximize revenues and minimize expenditures expand cash only where necessary; pay creditors no sooner than necessary and minimize the cost associated with vendor purchase and payment; provide for adequate external sources of funding, properly manage external short term borrowing or investment activities; effectively utilize any positive excess differentiation cash generated, and minimize the cash conversion gap to the smallest amount of time possible. Effective cash management is necessary due to a lack of synchronization between incoming and outgoing cash flow amounts and timing and stability of cash flow, a lack of reliable forecastability of cash flow amounts and timing and cost of holding cash balance or borrowing to cover cash shortfalls. What the company's cash management system should be designed to do is shorter, the cash generation cycle by effectively managing the assets, liabilities, revenues and cost of the business (Reider, 2005)

#### **2.4 Motives for Cash Holding**

There are different motives of holding cash. Among them the transaction motive for holding cash is based on Baumol, (1952) and Miller and Orr (1966) who supports the fact that firms/ industries hold cash for daily transactions to make payment for purchase, wage expenses etc. Since there are economies of scale with the transactions motive, large firm hold less cash. Mulligan (1997) favors transaction motive in which a firm's cash holding are based on its activity, technological sophistication and opportunity costs. Another reason for firm's holding cash is the precautionary motive. In this case, firms hold cash in order to continue to invest in positive NPV projects during periods when external finance is costly. This situation is of particular importance to firms that have good investment opportunities but are unable to generate enough internal cash to take advantage of them. This implies a benefit to holding cash for firms that may have limited access to capital when they need to invest. Opler et al (1999) supports the precautionary motive firm hold cash to be in a better position to cope with adverse shocks when access to capital market is costly.

The speculative motive relates to the holding of cash for investing in profit making opportunities as and when they arise. Harford (1999) documents the tendency of firms with unusually large holding of cash to undertake diversifying and value decreasing acquisitions. Corporations hold cash for several important reasons: - to pay for a firm's obligation, to take immediate advantage of business opportunities and to provide for self-insurance against unknown hazards (Baskin, 1987). Titman and Twite

(2007) find the U.S. cooperation's that incur a tax consequence associated with repatriating foreign earnings hold higher level of cash. The agency motive, as pointed out by Jensen (1986), entrenched manager would rather retain cash than increase payouts to share holders when the firm has poor investment opportunities.

## **2.5 Factor Influencing Size of Cash Holding**

Size of cash in industry will be determined by different factors. Among them, John (1999) suggested that for firm level, cash flow volatility, leverage, growth opportunities and investment are determinant of cash. Kim et al (1999) analyzed a sample of 425 US firms over 1975 to 1994. They documented that cash holding increase with higher market-to-book ratio and cash flow volatility. Their result also reveal that cash holding decreases with firm size leverage, the length of the cash conversion cycle, and the profitable of financial distress. Finally, they reported significant relationship between measures of future economic conditions and liquidity, implying that firms accumulate cash to be able to undertake future investment opportunities. IONA et al. (2004) suggested that managerial ownership, board composition and ownership concentration to some extent influence cash holding. Purpose of cash holding may be country specific Kester (1986) compared the cash holdings of Japanese and US firms. In 1983 the average US firms held only 8.6 percentages of their assets in cash where in Japan the average was 18.7% more. The difference in cash holding is attributable to difference in the corporate governance structures across countries. Ozkan (2004) investigated the association between management ownership and cash holding. He stated that cash holdings initially fall as managerial ownership increases and then the holdings increase only to fall again at even higher level of management ownership. Competition is the another factor that influence cash holding firms that operate in more intensely competitive sectors to hold more cash than otherwise similar firms that protected from competition (Maxwell, 2005). These studies indicate that growth opportunities, cash flow volatility, liquid assets substitute, leverage size, firm's structure, assets sales and competition are the main influencing factors for cash holding.

## **2.6 Advantages of Cash Holding**

The principal benefit of cash holding is that it constitutes a safety buffer (Levasseur, 1979) which allows industries to avoid the cost of raising external funds or liquidating existing assets. It allows industries to finance their growth opportunities. Since

companies operate in an imperfect market, they either have difficulty accessing the capital market or have to bear a very important external financing cost. Moreover the principal characteristic of their environment is uncertainty. Thus insufficient amount of cash forces firms to forgo profitable investment project or to support abnormally high cost of financing. Therefore management has preference for holding cash because the industries with more cash tend to make diversifying investments. It increases their options and it minimizes the firm risk (John, 1993). High cash flow can use cash reserves to finance investment internally and therefore undertake little borrowing (Minton and Wruck, 2001). Cash holding can be benefited when other sources of funds including cash flows are insufficient to satisfy firms demand for capital. It is more valuable for the financially constrained as it increase future sales growth for the constrained firms (Sibilkov, 2005).

## **Section-2**

### **2.7 Firm/industries Specific Characteristics that Influence Cash Holding Decision**

The amount of cash a firm/industry holds at any point in time depends on its specific characteristics. Financially constrained firms depend on the availability of internally generated cash flows. Almeida, Campello and Weisbach (2004) found a positive cash flow sensitivity of cash for financially constrained firms or industries. These firms create financial slack by foreign current investment projects in favor of future opportunities. The trade off view of holding cash suggests that firms balance the various costs and benefits of holding cash to arrive at an optimal level. Among other's following characteristics influence cash holding decision of the industries.

#### **2.7.1 Growth Opportunities**

The existence of growth opportunities in firms is important factors that positively affects cash levels (Kim et al. Opler et al. 1999, Ferreira and Vilela 2004, Ozkan 2004). Myers and Majluf (1984) points firms whose value is largely determined by their growth opportunities have larger information asymmetry. Consequently firms with greater growth opportunities incur higher external financing costs and also suffer from agency conflict associated with debt, which can lead to unprofitable projects (Myers 1977). Firms with more growth opportunities may also incur greater costs of financial distress (Harris and Raviv 1990, Shleifer and Vishney 1992). This is because their value depends on their growth opportunities rather than on tangible

assets or specific cash flows. Thus, this type of firm will keep higher cash level to avoid cost of financial distress. According to John (1993) firms with good growth but few tangible assets tend to keep higher cash holdings. It is considered that there is a positive relationship between holding of cash and growth opportunities of the firm. The argument is based on the view that external financing is more costly for firms with greater growth opportunities and in order to avoid costly external financing, these growth firms accumulate more cash (Ozkan and Ozkan 2004).

### **2.7.2 Cash Flow**

Keynes (1936) transaction motive for cash implies that, the level of cash reserve is responsive to the investment opportunities available to the industries the cost of external financing and the uncertainty of the industries cash flow. Myers and Majluf (1984) argue that in the presence of asymmetric information and signaling problems associated with external funding, industries tend to follow a hierarchy in their financing policies. Thus industries have a preference for internal over external finance and for debt over equity. Kim et al. (1998) argue that cash flow provides a ready source of liquidity for investment and maturing liabilities. It represents an additional source of liquidity for the firm and can therefore substitute cash. According to financing hierarchy model, firms that have high cash flows are expected to have higher cash balance. Therefore, industries with large cash flow might be a proxy for growth option. In either way, one would expect a positive relation between cash flow and cash holding.

### **2.7.3 Leverage**

The leverage ratio will also affect industries cash holding. Study of (Kim et al. 1998, Opler et al. 1999, Ferreira and Vilela, 2004; Ozkan and ozkan 2004) demonstrates a reduction in cash level when firms increase their financial leverage. This may be because the financial leverage is high when the cost of the funds used to invest in liquid asset is high (Baskin 1987). According to John (1993), firms that can access the debt market can resort the lending as a substitute for liquid assets. Debt can be used to finance firm's investment opportunities and can be seen as a cash substitute (John 1993). Therefore, we could expect a negative relationship between cash holding and leverage. The leverage ratio acts as a proxy for the ability of firms to issue new debt. Thus highly leveraged firms have an easier access to capital markets and hold less cash. However, debt increases the profitability of financial distress and

bankruptcy. To reduce this profitability, firms with higher leverage are expected to hold more cash. Thus the predicted relationship cash holding and leverage is not clearly determined.

#### **2.7.4 Size**

Size is another significant variable that affects cash holdings. It is argued that larger firms are more likely to be diversified and thus less likely to experience financial distress Titman and Wessels, (1988). Ozkan (1996) suggests that smaller firms are more likely to be liquidated when they are in financial distress. Smaller firms face more borrowing constraints and higher cost of external financing than larger firms (Whited 1992; Fazzari and Petersen, 1993, and Kim et al. 1998). This argument suggests a negative relationship between size and cash holding of firms. Furthermore, it is suggested that larger firms have less information asymmetry than small firms Brennan and Hughes (1991). To the extent that size is an inverse proxy for the degree of informational asymmetry between insiders in a firm and the outside investor. A negative relationship should be expected between sized and cash holding.

#### **2.7.5 Liquidity**

The presence of liquid assets besides cash and marketable securities can also affect industries optimal cash holding since they can be considered substitutes of cash. We would therefore expect industries with more liquid assets other than cash holding to reduce their cash level. There is a negative relationship between the industries cash holding and its liquid assets. To extent that industries can use other liquid assets besides cash when they have cash short falls, these assets can be seen as substitutes for cash holding.

#### **2.7.6 Cash Flow Variability**

According to hierarchy theory, firms prefer to fund themselves with resources generated internally before resorting to the market. In these circumstance firms with large cash flows will keep higher cash levels as mentioned by Opler et al. (1999) and Ozkan and Ozkan (2004) for the US and British markets respectively or Ferreira and Vilela (2004) for European Money Union (EMU) countries. However, Kim et al. (1998) claim that the relation is negative, as they consider that cash flow represents and additional source of liquidity for the firm and can therefore be substitute for cash. For greater firms cash flow variability, the greater the number of state of nature in which the firm will be short of liquid assets. There is evidence that firms with cash

short falls do indeed fact to take up some of the valuable growth opportunities. Minton and Schrand (1999) show that the firms with higher cash flow volatility permanently forgo investment rather than reacting to cash flow shortfalls by expected to hold more cash in an attempt to mitigate the expected cost of liquidity constraints. The measure we use for cash flow variability is the standard deviation of the first difference in cash flows scaled by the book value of assets or sales. In a similar vein, this study also tries to observe the trend and see the relationship between cash and other variables like growth, cash flow, leverage, size liquidity and cash flow variability in the Nepalese context. Besides, the study also seeks to examine the motives of cash holding and its effect on financial performance of the industries.

### **Section-3**

#### **2.8 Review of Empirical Works**

Cash is considered as one of the important component of current assets and is the helping hand of corporate financial management. Managers hold a substantial portion of their assets in the form of cash for reinvestment in physical assets, distribution to investors and to keep cash inside the firm (Almeida et al., 2002). The corporate cash holding patterns are unusually explained under three theories namely trade off theory, reducing order theory and free cash flow theory.

According to trade off theory, firms set their optimum level of cash holdings by weighting the marginal cost and marginal benefits of holding cash. The main benefits are reduction in financial distress, pursuance of the optimal investment policy and its contribution to minimize the cost or liquidating existing assets (Ferreira and Vilela, 2004). As per the pecking order theory (Myers 1984), firms finance investments firstly with retained earnings then with safe debt and risky debt and finally with equity. When current operational cash flows are sufficient to finance new investments, firms repay debt and accumulate cash. When retained earnings are not enough to finance current investments, firms use the accumulated cash holdings and if needed issue debt. Free cash flow theory by Jensen (1986) explains that managers have an incentive to accumulate cash to increase the amount of assets over the firm's investment decision. With the cash holding, they do not need to raise external funds and undertake investments that have a negative impact on share holders wealth.

Industries or firms invest certain amount of cash in assets but the size of cash differs according to volume of business, assets structure and available opportunities. Cash invested by the industries also effects cash utilization which depends upon industries performance and business expansion. In one way or another, the major inference of almost all the studies concerning demand for cash by industries center around factor influencing cash holding , its investment and utilization. This can be seen by examining important available literature on cash demand by firms or industries. The review of studies and their findings are as follows:-

Since the seminal work by Keynes the focus of empirical investigations on the properties of money demand has shifted from the aggregate to the individual level. The Keynesian approach to demand for money distinguishes three different motives of cash holding, for transaction for precautionary and for speculative purposes. The Chudson study on organization structure and corporate cash holding is different than Keynes, which suggests that motives on cash holdings depend on structure of firms. The inventory theoretic models of Baumol and Tobin provide a foundation for the transactions demand for money. The models can be taken as an improved form of Keynes study. Here table 2.1 shows studies on cash demand by firms before 1960s.

According to Keynes (1936), the demand for money and other liquid dassets held by firms are based on transactions, wealth and portfolio balance. In this approach, cash balances should increase less than proportionately with transactions. The wealth model relies on the assumption that business firms will distribute their total assets among various categories by equating their marginal rates of return. The portfolio balance view explicitly adds the risk factors as firms should balance risk and rate of return. In practice, the firm must compare the interest rate earned on government securities with the risk of not holding money that is the possibility of forced liquidation of some assets with sure capital losses.

Chudson (1945) revealed that firm structure effect cash holdings decision. Unlike focused firms diversified firms have the potential to use internal capital markets and proceeds from sales of non-core assets and therefore would have less need to hold cash. These firms also have more agency problems, primarily in the form of conflict over resource allocation across segments that increases the marginal cost of holding cash. Using financial and segment data in the 1988-2002 periods find evidence that diversified firms hold significantly less cash than their focused counter parts. This

result holds even after industries adjustment at the segment level and after controlling for the different factors found to be important determinants of corporate cash holdings in both time series and cross sectional tests.

The inventory theoretic models of Baumol (1952) and Tobin (1956) provides a natural accounting of the variability of velocity in the short run and its systematic negative correlation with the stock of money relative to consumption. In such a model different agents at different points in the cycle of depleting and replenishing there, balances have different propensities to spend their stock of cash slowly since they spread the spending of their cash over the interval of time that remains before the next visit the asset market. Hence, these agents will have a relatively low individual velocity of money. In contrast, those agents who have been away from the asset market for some time and anticipate visiting it again soon to replenish their cash balances will tend to spend the cash that they have at a relatively rapid rate and thus have a relatively high individual velocity of money. Aggregate velocity at any point in time is determined by the weighted average of the individual velocities of money of all the agents in the economy with the weight determined by the distribution of cash holding across agents.

**Table 2.1**  
**Review of Empirical Works Before 1960s**

<b>Empirical works</b>	<b>Major findings</b>
Keynes (1936)	The keynesian approach to the demand for money distinguishes three different motives of cash transaction, precautionary and speculative.
Chudson (1945)	Organizational structure of the firms affects corporate cash holdings. The study suggests that diversified firms hold significantly less cash than their focuses counterparts.
Baumol (1952)	Study suggests that optimal transactions cash balance is very less than in proportion to sales.
Sagan (1955)	The study points out that the level of operational cash needs depends primarily on the scope of the business and its type. Generally the size of cash depends on the level of sales.
Tobin (1956)	Study suggests that optimal transaction cash balance is very less than in proportion to sales.
Friedman (1959)	Elasticity of cash with respect to sales is about or more than unity and the demand for money are not statistically sensitive to change in the rate of interest.

Sagan (1955) indicated the need to build up a theory of working capital. He suggested that the preparation of a cash flow schedule was a basic factor to achieve a successful program of money management. Sagan pointed out that the level of operational cash needs depends primarily on the scope of the business and its type.

Study on cash holding by firms has been stimulated by Miller and Orr, Benzion and Myers focusing on the transaction motive for holding cash, velocity of money demand and optimal cash ratio. Table 2.2 shows the studies on cash holding by firms during 1960s to 1970s and their findings.

Selden (1961) studied the postwar velocity of money by sectors and found that velocity falls as firm's size increases. The study observed that increase in firm size would increase government securities relative to cash and total assets. Selden emphasizes that the main reason for substituting cash and other assets with government securities in the cost of holding money which is definitely higher for smaller firms because of the higher cost they face to raise money.

The transaction motive for holding cash is based on Miller and Orr (1966) who argue that firm holds cash for daily transaction. It is called transaction motive for holding cash which develops or simple model for computing the optimal operating cash balance, as a function of the opportunity cost of holding cash and cash requirement for operation.

**Table 2.2**  
**Review of Empirical Works During 1960s to 1970s.**

<b>Empirical works</b>	<b>Major findings</b>
Selden (1961)	Study mainly indicated that velocity of cash holdings fall as the asset size of the firm increase. The velocity of money is inversely related to the assets size of the firm.
Miller and Orr (1966)	Study mainly indicated the transaction motive for holding cash. Transaction costs were assumed to be the major determinant of cash holdings and firms with a higher marginal cost of cash shortfalls hold more cash.`
Vogel And Maddala (1967)	Study mainly indicated that cash to assets and cash to sales ratios are generally lower for larger manufacturing firms and cash holdings declined over time.
Benzion (1974)	Cross section estimates the firms demand for cash reveals that money demands elastic ties between 0.866 and 0.889 suggesting economies of scale in holding money.

Myer (1977)	Conclude that there is an optimal cash level, which results from weighting its marginal benefit and costs. There are economies of scales on cash but there is no elasticity of interest in cash demand functions.
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However Vogel and Maddala (1967) criticize previous studies because they do not take into account the possibility of cross-section estimates in a dynamic context. Their study reveals that cash to assets and cash to sales ratio are generally lower for larger manufacturing firms and that cash holdings declined over time which is interpreted as evidence of economies of scale in transaction of costs of cash holding.

Benzion (1974) argues that the cross-section estimates for firms demand for cash reported in the literature have two main difficulties. First of all, the studies do not use a variable cost of capital in their analysis. Second all the previous studies use data of firms in different industries, rather than data on individual firms. Benzion estimates money demand elastic lies between 0.866 to 0.889.

Myers (1977) trade off theory suggests managers determine a firm's optimal cash ratio by weighting the cost and benefits of holding cash. The trade off model of cash management says that managers have the incentives to under invest in growth option and prefer holding more cash and other liquid assets because asset liquidity can reduce firms possibilities of financial distress.

The size of cash in the enterprises is determined by many factors. Among them the major cash influencing factors have been encouraged by Myers, Majluf and Opler et al. and Kim, Mauer and Sherman focusing on the size, growth opportunity, performance, liquidity, information asymmetry and leverage.

The table 2.3 shows the studies on determinants of cash holding by firms during 1980s and 2000s.

**Table 2.3**  
**Review of Empirical Works During 1980s to 2000s.**

<b>Empirical works</b>	<b>Major findings</b>
Myers and Majluf (1984)	Study indicates that cash holding increases as the degree of information asymmetry increases. Also it increases the firm's value.
Pradhan (1986)	Study mainly indicated that economies of scale elasticity of cash with respect to sales are less than unity and the average elasticity of interest cost is more than unity.
Bajracharya (1990)	Study mainly indicated the dissociation between cash balance and the opportunity cost of holding cash. However the relationship between sales and cash balance found positive.
Shleifer And Vishney (1992)	Study indicates that diversified firms are more likely to raise funds by selling substantial assets, especially of non-core segments than single-segment firms.
Opler et al. (1997)	Study indicates that firms with strong growth opportunities and riskier cash flows hold relatively high ratios of cash to total assets ratio and firms that have the greatest access to the capital markets tend to hold lower ratios of cash to total assets.
Kim, Mauer And Sherman (1998)	Study indicates that growth opportunities investment, R and D expenditures and volatility of cash flow are found to be positively related to cash holdings but the size and net working capital are negatively related to cash holding.

Myers and Majluf (1984) suggest a role for cash management given information asymmetry between the market and a firm. Due to mispricing that may result from such asymmetries, positive NPV projects may only be invested in when cash within the firms is available. Pradhan (1986) studied the demand for cash by corporation in the Nepalese context. The estimated pooled regressions result mainly indicated the various issues along with the effect of capacity utilization on the demand for cash is adjusted to its desired level. This study also shows the significant effect of interest cost on investment in cash.

Bajracharya (1990) studied the cash management in Nepalese Public enterprises. The most investing finding of the study was disassociation between cash balance and opportunity cost of holding cash.

Shleifer and Vishney (1992) discuss the role of assets sales as a source of financing on their experiment that “a firm with assets on its balance sheet that can be cheaply converted into cash can raise funds at low cost by selling their assets”.

Opler et al. (1997) examine the determinants and implications of holdings of cash and marketable securities by publicly traded U.S. firms in (1971-1994) periods firms with strong growth opportunities and riskier cash flows hold relatively high ratios of cash to total assets. Firms that have the greatest access to the capital markets tend to hold lower ratios of cash to total assets.

Kim, Mauer and Sherman (1998) analyze the determinants of liquidity holdings for a sample of U.S. companies. They develop a model of optimal corporate investment in liquid assets based on a cost benefit trade-off between the holdings of liquid assets and the benefit of minimizing the need to fund profitable future investment opportunities with costly external financing.

**Table 2.4**  
**Review of Empirical Works During 2000s**

<b>Empirical works</b>	<b>Major findings</b>
Minton & Wruck (2001)	Study mainly indicated high growth options, size and cash flows of firms exert a positive impact on firms cash holding decision.
Dittmar et al. (2002)	The study indicates that firms where management is more accountable to share holder hold less cash than firms with weaker governments.
Faulkender (2004)	Study mainly indicted that marginal value of cash declines with large cash holdings, higher leverage, better access to capital market and as firms choose to distribute cash through dividends rather than purchases.
Subramanian et al. (2005)	Study mainly indicated that diversified firms hold significantly less cash than their focused counterpart.
Arslan et al. (2006)	Study mainly indicated that more financially constrained firms' exhibit greater cash sensitivity during the crisis than less constrained firms study indicated that association between investment and firm value is significantly strong for constructed firm than for unconstrained firms.
Denis (2007)	Study indicates that association between investment and firms value is significantly stronger for contrained firms than for unconstrained firms.

Sharma (2008)	Study indicates that fundamental variables and corporate cash holdings are cross sectionally related.
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Minton and Wruck study the growth options size and cash flow of the firms which brings the positive impact on the firms cash holding decision.

Dittmar et al. studied the directional effect of certain firms' characteristics on cash holdings and revealed that firms where management is more accountable to share holders have lower agency cost and tends to hold less cash than firms with weaker governance.

Faulkender studied the determinants of cash holding in small firms and suggested that small firms have much greater difficulty accessing capital than large publicly trade firms and should therefore receive the greatest benefit from holding cash.

According to Subramanian et al. there are several reasons why firms structures could affect cash holdings. Unlike focused firms, diversified firms have the potential to use internal capital markets and processed from sales of non-core assets, and therefore would have less need to hold cash.

Arslan et al. & Denis studied the effects of financing constraint on Turkish firms during financial crisis of 2001-2002 and revealed that more financially constrained forms exhibit greater cash flow sensitivity during the crisis than less constrained firms. However, it is possible for agency costs to differ between in government measures affect cash holdings even holding constant the financing constraints facing firms.

The major conclusion of the Sharma's (2008) study is that fundamental variables like cash flow, liquidity, leverage, growth, size, cash flow variability and corporate cash holdings are cross sectionally related.

#### **Section-4**

### **2.8 Concluding Remarks**

In a perfect capital market, there are no information asymmetries, taxes or transaction cost. Since cash holding have a zero NPV, holding large amount of cash is irrelevant. Importance of study on cash management particularly increased in the 1970s, when the level of interest rates on short term investments increased. Various models were developed regarding a cost benefit tradeoff between the holding of liquid assets and

costly external financing. Studies on cash demand in the changed context with more recent data are still not available, therefore present study will be relevant in the Nepalese context.

Studies on the size and structure of cash including utilization on the more recent data are not available in Nepal. The ratio of cash to total assets is different among countries and even within firms of the same country, when controversies exist with respect to the size of cash to total assets ratio. Studies on factor influencing cash holding suggest that growth options of the firms. Its size of investment transaction obligation, its past operating and financial performance and net working capital determines its size of cash. Even then the particular factors affecting cash holding in Nepalese enterprises are not yet known.

The corporate cash holdings patterns are usually explained under three theories namely trade off theory, pecking order theory and free cash flow theory. To investigate the effect of cash holding on liquidity leverage, turnover and interest coverage position of Nepalese enterprises and to verify the contradiction of size effect in Nepalese considerable research on determinants of corporate cash holding in developing countries. The current study tries to fill this gap by analyzing the behavior of the firm's specific factors with respect to corporate cash holdings in Nepal.

## **CHAPTER - THREE**

### **RESEARCH METHODOLOGY**

Research methodology is the guideline of research. Data and information are lifeblood of any research. Research methodology is a plan to obtain the answer of research question through analysis of data.

Research methodology is the way of to solve systematically about the research problem (Kothari, 1990). In other words, the systematic and well-organized way for solving the research problem can be referred to as research methodology. This study has an ultimate concerned with applicability and effectiveness of cash management of Nepal telecom. So the objective of this study is to analyze, examine and interpret the application of cash management of Nepal telecom so it requires appropriate research methodology. The main contents of research methodology are mentioned below.

#### **3.1 Research Design**

The primary objective of this study is to analyze the cash management system adopted by Nepal Telecom. Hence descriptive as well as analytical research design has been employed.

Descriptive research is fact-finding operation searching for adequate information. It is type of study which is generally concluded to assess the opinions, behaviors or characteristics of a given population and to describe the situation and events occurring at present. Descriptive research is a process of accumulating facts. It is essentially fact finding approach and obstructing generalization by the cross sectional study of the current situation. Hence descriptive research is extension of an exploratory research.

Analytical approach is followed to parametric and non parametric test of data. It is the process of micro analysis and appraisal of the data.

#### **3.2 Population and Sample**

The present public enterprises NTC is the population of the study, and selected as a sample for the evaluation .Similarly, financial statement of years beginning from the fiscal year 2061/62 to 2065/66 are covered as sample for the purpose of the study.

### **3.3 Nature and Source of Data**

The data used in this study are secondary as they are collected from concerned authorities. For any research work, information is considered as the lifeblood, thus it is the major task to gather the information and data. To fulfill the objectives of the study secondary data have been used.

Secondary data have been taken mainly from the following sources:

- Published and unpublished documents and annual reports of telecom industries.
- Journals government and non-government publication.
- Other supportive book from central library of Tribhuvan University, NTC library and websites ([www.ntc.net.np](http://www.ntc.net.np))

### **3.4 Financial Tools**

Financial tools are those instruments and technique which help in the analysis of financial position of Nepal Telecom. Various financial tools have been used in the study such as cash flow analysis, ratio analysis which consists analysis of cash to current liabilities, analysis of cash to total assets, analysis of cash to daily operating expenses, analysis of cash turnover ratio, analysis of investment in cash and bank balance on current assets and total assets.

#### **3.4.1 Ratio Analysis**

##### **3.4.1.1 Liquidity Ratio**

###### **Analysis of Current Ratio**

This ratio examines the short term solvency i.e. liquidity position of the firms. The higher the current ratio the larger is the amount of rupee available per rupee of current liability, the more is the firm's availability to meet current obligation and the greater is the safety of funds of short term creditors. Lesser the ratio indicates the lower liquidity position of the firms.

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

###### **Analysis of Quick Ratio/Acid-Test ratio**

It is a measure of liquidity designed to overcome the defect of current ratio. It is often referred as a quick ratio because it is a measurement of firm's ability to convert its current assets quickly into cash in order to meet current liabilities.

Quick ratio= quick assets/current liabilities

Where Quick assets = Current assets – Inventory.

### **3.4.1.2 Turnover ratio**

#### **Cash Turnover Ratio**

Cash turnover ratio explains how quickly the cash is received from the sales, or in other words it measures the speed with cash move through companies operation.

Cash turnover ratio = Sales/Cash in Hand + Bank Balance

#### **Inventory Turnover Ratio**

This ratio indicates the number of times inventory is converted in sales during the year.

Mathematically,

Inventory Turnover ratio = Sales/Closing inventory

Inventory Conversion period = Days in year/Inventory conversion period

It indicates that the gap of the period which the inventory to be sold in each time of conversion.

#### **TIE Raito (Interest coverage ratio)**

Interest coverage ratio is also referred to as time interest earned ratio (TIE ratio). It measures the extent to which interest on debt capital is covered by EBIT it is also calculated by dividing EBIT by the interest charge. This ratio measures to what extent a firms EBIT can decline before the firm is unable to pay its interest. It is measure of debt serving capacity of a firm.

### **3.4.1.3 Cash and Bank Balance to other Aspects**

#### **Cash and Bank Balance to Current Liabilities**

It calculates the cash balance available with the industries in meeting payment of current liabilities. Too high and too low ratio are unfavorable for the firm since too high indicates excess cash balance held idle too low ratio mean the industries unable to meet current liabilities.

Symbolically,

$$\text{Cash to current liabilities} = \frac{\text{Cash + Bank balance}}{\text{Current liabilities}}$$

Cash and bank balance to A/C payable

Cash to A/C payable = cash+ Bank Balance/ A/C payable

### **Cash and bank balance to total assets**

It indicates the position of cash with relation to total assets. It measures ratio of productive assets with unproductive assets moderately high is the best. Too much high measures the idle cash which is losing opportunities income and vice-versa.

### **Cash conversion cycle**

It measures the length of time between when the company makes payment and it receives cash. Lower the conversion cycle is preferable.

Mathematically,

Cash conversion cycle = Inventory conversion period + Receivable collection period  
payable deferral period + Payable deferral period

Payable deferral period is calculated by

$$\frac{\text{A/C Payable}}{\text{Cost of good sold}} \times \text{Days in a year}$$

Higher the payable deferral period is preferred credit rating of the companies towards supplies must be maintained.

## **3.5 Statistical Tools**

### **3.5.1 Correlation with Variable (s)**

Correlation, describes the degree to which one variable is linearly related to another. Cause is not identified by the studying of correlation but it explains the relationship between two or more variables.

Symbolically,

$$\text{Correlation (r)} = \frac{\sum UV}{\sum U^2 \sum V^2}$$

Where,

$$U = X - \bar{X} \quad \text{X and Y are variables}$$

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

$$\text{Probable error} = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

Where,

N = No. of period, the sample is taken out

$r^2$  = coefficient of determination

If 'r' is less than probable error, there is no evidence of correlation, i.e. the value of 'r' is not at all significant.

### 3.5.2 Standard Deviations

The standard deviation measures the obsolete variability of a distribution. The greater the amount of dispersion or variability greater the standard deviation for the greater will be magnitude of deviation of the value from the mean. A small standard deviation means a high degree of uniformity of the observation homogeneously of a series.

Symbolically,

$$\text{Standard deviation} = \sqrt{\frac{\sum U^2}{N}} \text{ or } \sqrt{\frac{\sum V^2}{N}}$$

### 3.5.3 Regression Analysis and Regression Line

In regression analysis the nature of relationship between two variable is established and the unknown variable is established on the basis of other unknown variable. Thus the regression analysis is the statistical methods for determining the nature of relationship that exists among two or more variables and then using that relationship between two variables, the value is the more accurate. The unknown variable is called dependent variable and the known variable is called independent variable.

Symbolically,

Regression line of 'X' variable (x) on 'Y' variable (y) is given by,

$$X - \bar{X} = r \frac{\sigma_x}{\sigma_y} (Y - \bar{Y})$$

Where,

$\bar{X}$  = Mean of 'X' variable

$\bar{Y}$  = Mean of 'Y' variable

$\sigma_x$  = standard deviation of 'X' variable

$\sigma_y$  = standard deviation of 'Y' variable

r = Karl Persons's coefficient of correlation

We can say  $r \frac{\sigma_x}{\sigma_y}$  regression coefficient of 'X' on 'Y'. It measures the change in 'X' corresponding to a unit change in 'Y'.

### 3.5.4 Multiple Regression Analysis

It is a statistical technique for investigating the relationship between one dependent variable and set of two or more independent variables. The multiple regression analysis represents the extension of two variables regression analysis. It is definitely superior to simple regression analysis as it is more close to reality the multiple regression equation in symbol is;

$$Y = a + b_1X_1 + b_2X_2$$

Where,

Y = Dependent variable

X<sub>1</sub>, & X<sub>2</sub> = independent variable

a = value of 'Y' when X<sub>1</sub> and X<sub>2</sub> = 0

b<sub>1</sub> = partial regression coefficient of Y<sub>1</sub> on X<sub>1</sub> when X<sub>2</sub> is constant.

Coefficient of multiple determination for multiple regression,

Symbolically,

$$R_{YX_1X_2} = \frac{a \sum Y + b_1 \sum YX_1 + b_2 \sum YX_2 - NY^{-2}}{\sum Y^2 - NY^{-2}}$$

The calculated value indicates that two independent variable X<sub>1</sub> and X<sub>2</sub> explain the total variables in dependent variable Y. If we want to the accuracy of estimate still further, we may add more independent variable in the regression model.

### 3.6 Limitation of the Study

Different econometric models are used in the study of corporate cash holdings. But this study uses on financial and statistical model of corporate cash holding in the Nepalese context, limited number of variables like liquidity leverage growth opportunity, cash flow and size but it does not consider other important variable like dividend research and development expenditure and market to book ratio for investment opportunity.

The data problem is acute in Nepal. Even the published financial statements are not readily available since they are not properly recorded. The study covers the five fiscal years' from 2061/62 to 2065/66. Since the study will be based on the secondary data collected from the Nepal Telecom.

The research is related to cash management; hence, it will be concentrated on cash transaction of Nepal Telecom. It doesn't cover the other area of the Nepal Telecom. The study is based on the cash management of Nepal Telecom, therefore, the result may not be applicable to other enterprises. Since there is data problem, the accuracy of this study will be based on data of Nepal Telecom and various published documents of the organization. Only descriptive and analytical methods of research are applied in this study.

## **CHAPTER - FOUR**

### **PRESENTATION AND ANALYSIS OF DATA**

Cash is an integral part of working capital management practices and policies has both direct and indirect bearing on various aspect of liquidity solvency and the management of current assets and liabilities. Management of working capital a crucial aspect of financial management determines to large extent the success or failure of an enterprise. Most of the enterprises often are suffering from different problems such as shortage of funds, irregular cash flow, putting up of inventory, blocking of funds receivable for long period due to lack of proper management of funds. A firm can choose appropriate combination of working capital only after systematic analysis of it different aspects.

One of the major responsibilities of management it to plan, control and safe guard the resources of the organization. Cash is the very important asset of the organization. So the management of cash is important in enterprises. Whether, the profit making or nonprofit making organization.

The basic objective of this study as stated in chapter first is to have true insight into the cash management of Nepal Telecom. For accomplishment of these objectives a definite course of research methodology has been followed which is described in chapter third. For the purpose of representation of data, the most recent published financial statement and annual report are used.

#### **4.1 Analysis of Nepal Telecom**

Analysis of individual data itself is crucial for the decision purpose. Ratio analysis, cash flow statement and correlation are based on the data provided by Nepal Telecom in their respective period, which has been presented and analyzed here. Analysis of data is based on the deployment of various financial and statistical tools. So, main focus of this study is to analyze those tools and to make this research valid. It is necessary to analyze these factors, which influence the cash management analysis. Recent Nepalese market movement has been analyzed and diagnosed with special references to the Nepal Telecom. Tables and diagrams have been used to make the result more simple and understandable.

## 4.2 Analysis of Cash balance

Management of cash plays a light candle role for knowing when, where and how your cash needs will occur what the best resources are for meeting additional cash needs. It plays a positive role in current assets of a company. The total cash includes cash in hand, cash at bank and inter-branch balance. Cash is what we must have to keep the doors of your business open, while we are busy trying to make a profit if. Thus, it is said that we can't spend profit, we can only spend cash. This below table shows the cash position of the company during the period under study 2061/62 to 2065/66.

**Table 4.1**  
**Statement Showing of Cash Balance**

(Amount in '000')

Fiscal year	Balance			Total cash balance	Increase/Decrease (%)
	Inter-Branch	Bank	Cash		
2061/62	9968	9504339	70102	9584469	-
2062/63	7170	11908079	113546	12028795	25.50
2063/64		14746338		14746338	22.60
2064/65		16134517		16134517	9.4
2065/66		18191058		18191058	12.75

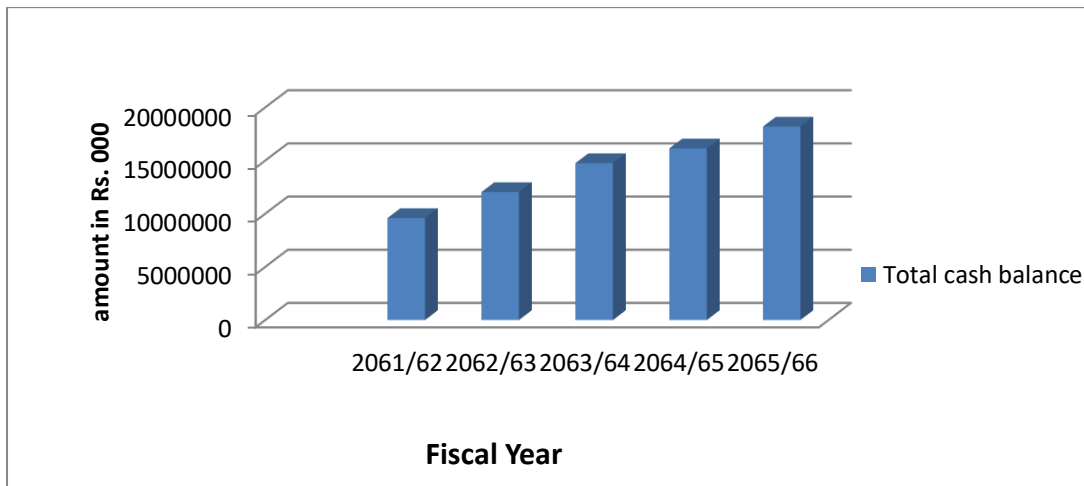
Source: Annual Report, NTC.

The above given table 4.1 shows actual cash position of the company. The cash holding of the company shows increasing trend in 2061/62. In fiscal year 2061/62 it is Rs. 9584469 collected but in F/Y 2062/63, it is increased in comparison with previous year. Total cash collected in 2062/63 is Rs. 12028795. The cash balance of the company is also increasing trend. As it increased by 25.5% in 2062/63 as compared to previous year. Cash balance in 2063/64 is Rs. 14746338. The total cash balance of the company is increasing in decreasing trend by 22.60%. Total cash balance of the company in F/Y 2064/65 is Rs. 16134517 is increased by 9.4% in comparison to previous year. In F/Y 2065/66 the total cash balance of company is Rs. 1819058 which is increased by 12.75% in comparison to the previous year. In fact, this visualized that the company in the F/Y 2062/63 make best position of cash. But the Nepal Telecom has no systematic techniques used for managing the cash. It is crucial importance for the company to keep careful watch over the cash movements to

determine new cash flow because of available and also to investigate the opportunities for the use of cash.

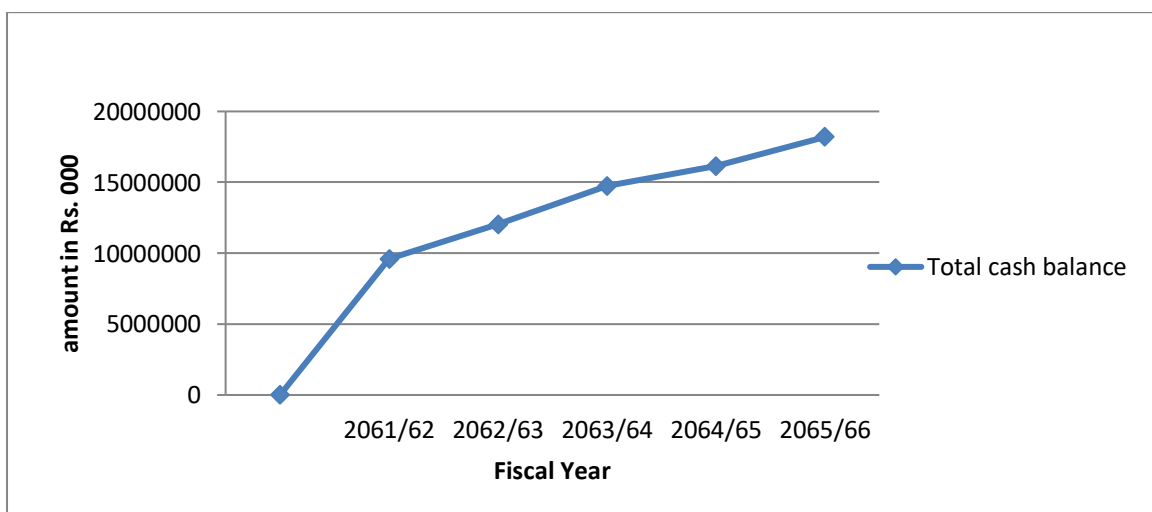
The bar diagrams below shows the cash position of the Nepal Telecom.

**Figure 4.1**  
**Total Cash Balance**



The figure 4.1 shows that the maximum cash balance is in the year 2065/66 i.e. Rs. 1819058 which is shown by the bar 2065/066. The increasing percentage is 12.75. The minimum cash balance is shown by the bar 2061/062 i.e. 9584469. Describe status of cash balance shows that the telecom has maintained good cash management policy as a whole because the cash balance is in increasing and year by year.

**Figure 4.2**  
**Total Cash Balance**



The trend line of cash holding shows increasing by the year to year from 2061/062-2065/66) NTC has very high growth in year 2062/063 having growth rate of 25.50%.

#### 4.2.1 Shortage of Excess Position of Cash: Without Considering Previous Year Remaining Cash Balance

**Table 4.2**  
**Statement Showing Actual Cash Surplus/Deficit without Previous Year Cash Balance**  
(Amount in Rs. '000')

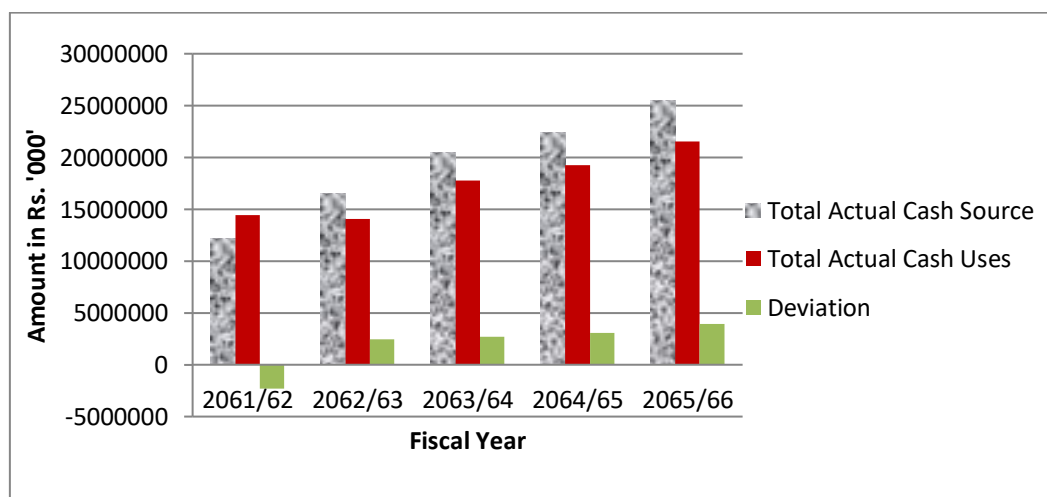
Fiscal Year	Total Actual Cash Source	Total Actual Cash Uses	Deviation	Surplus/Deficit
2061/62	12151818	14444112	(2292294)	Deficit
2062/63	16510177	14063052	2447125	Surplus
2063/64	20482552	17757839	2724713	Surplus
2064/65	22356781	19265412	3091369	Surplus
2065/66	25463212	21557964	3905248	Surplus

Source: Annual Report of budget book of NTC.

From the given table 4.2 it is clear that big deviation between the actual cash sources and uses. It means there was deficit of cash at end of fiscal year 2061/62 by Rs.2292294. And then the companies deviation is increasing positively from the fiscal year 2062/63 to 2065/66 by the amount Rs. 2447125, Rs 2724713, Rs 3091369, 3905248 respectively which result surplus. This is the positive factor of the company.

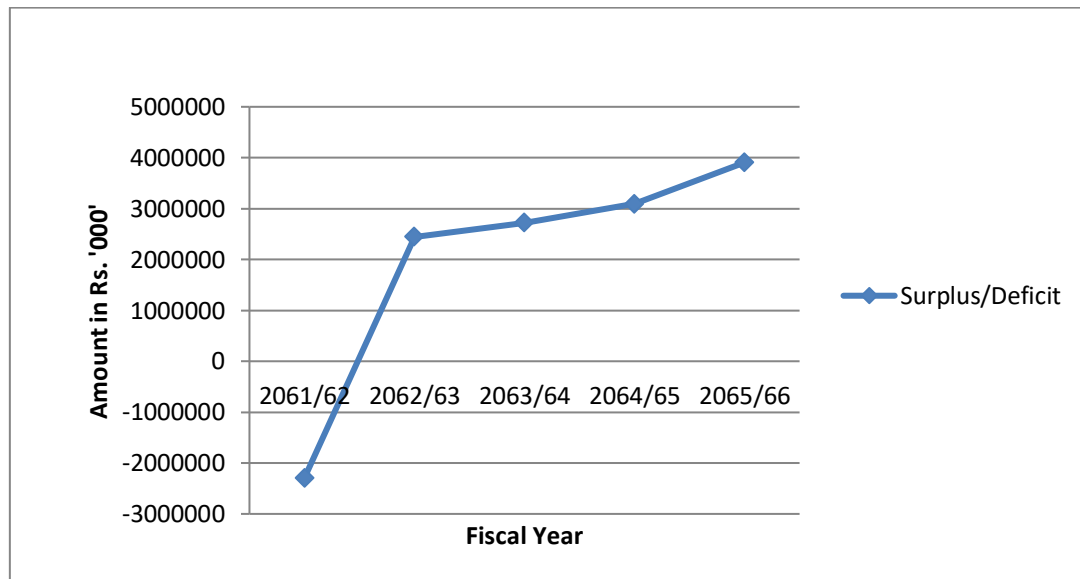
The bar diagrams below shows the shortage or excess position of cash without considering previous year remaining cash balance.

**Figure 4.3**  
**Statement Showing Actual Cash Surplus/Deficit without Previous Year Cash Balance**



The above figure 4.3 shows the deviation among the actual sources, actual uses and surplus/deficit. In the above table, there was a surplus in the fiscal year 2061/62 then after there is surplus till 065/66. The above figure shows that budgeted amount was not actually used to the plan of the company. Because the surplus for the company is not in same ratio.

**Figure 4.4**  
**Trend Line of Deviation**



Above figure shows that the trend line of surplus/deficit which in the fiscal year 2061/62 there is deficit then after the surplus exist till 2065/66. This shows that the budgeted amount was not actually used because the ratio of surplus is different to different year. It is crucial important for the company to keep careful watch over the total actual cash sources and total actual uses.

### 4.3 Analysis of Financial Ratio

Financial analysis is the most essential factor to know the performance and assessing the strength of an organization which presents actual situation of the company. The term ratio refers to the numerical of quantitative relationship between two item variables. Management should be particularly interested in knowing the financial strengths of the firm to make their best use and to be able to spot out the financial weakness of the firm to take suitable corrective actions. The present ratio analysis is done on those activities which have direct impact relation with cash management of Nepal Telecom.

### 4.3.1 Analysis of Cash to Current Liabilities

Among the technique of measuring company is liquidity the ratio of cash balance to current liabilities may also be used as an index of cash management. This ratio indicates the amount of cash available to pay the current obligation of the firm. In general, a low ratio of cash to current liabilities may be regarded as a favourable indicates. However a very low ratio is also not desirable as it may lead to corporate insolvency. The table shows that the level of cash in relation to current liabilities of NTC is given below.

**Table 4.3**  
**Analysis of Cash to Current Liabilities of NTC**

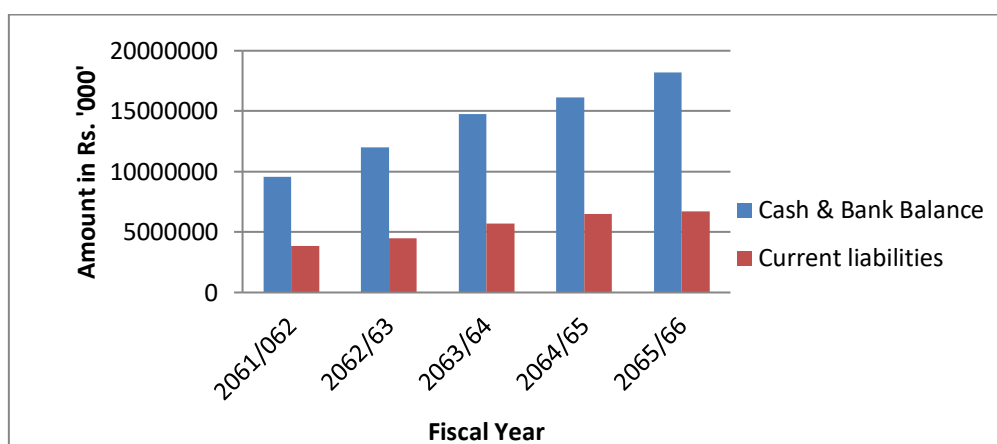
Amount in Rs. '000'

<b>Fiscal Years</b>	<b>Cash &amp; Bank Balance</b>	<b>Current liabilities</b>	<b>Cash to current liabilities</b>
2061/062	9574501	3858484	2.48
2062/63	12021625	4475753	2.68
2063/64	14746338	5712296	2.58
2064/65	16134517	6478045	2.49
2065/66	18191058	6718055	2.71

*Source: Annual report of NTC.*

On the basis of the data given in the table shows the lowest ratio is 2.48 for the fiscal year 2061/062 and highest ratio is 2.90 for the year 2060/061. In the other year during the study periods in 2058/059, 2059/060, 2062/063 the levels of cash in relation to current liabilities are 2.80, 2.75 and 2.68 respectively. It was found that the cash position of company was very strong over the study period. The cash ratio was in slightly increasing trend. Only cash was almost sufficient to pay its current liabilities except in the formal one year. So it shows that cash was not managed properly which may yield more return to the company. The bar diagram shows the position of cash and bank balance and current liabilities.

**Figure 4.5**  
**Cash & Bank Balance and Current Liabilities**



The above figure show that the maximum cash balance is in the fiscal year 2065/066. Again the minimum cash balance is in 2061/062, The maximum and minimum current liabilities are in the fiscal year 2062/063 and 2058/059. The ratio is increasing trend in each fiscal year 23065/066 and 2061/62 respectively.

#### **4.3.2 Analysis of Cash to Total Assets Ratio**

Analysis of cash to total assets is also one of the most important tools for knowing about the liquidity position of the company. This ratio indicates that cash is major component in the pie of total assets. This ratio shows that cash is kept idle without investing in appropriate sector. The table shows that the level of cash in relation to total assets of NTC is given below.

**Table 4.4**  
**Analysis of Cash to Total Assets Ratio**

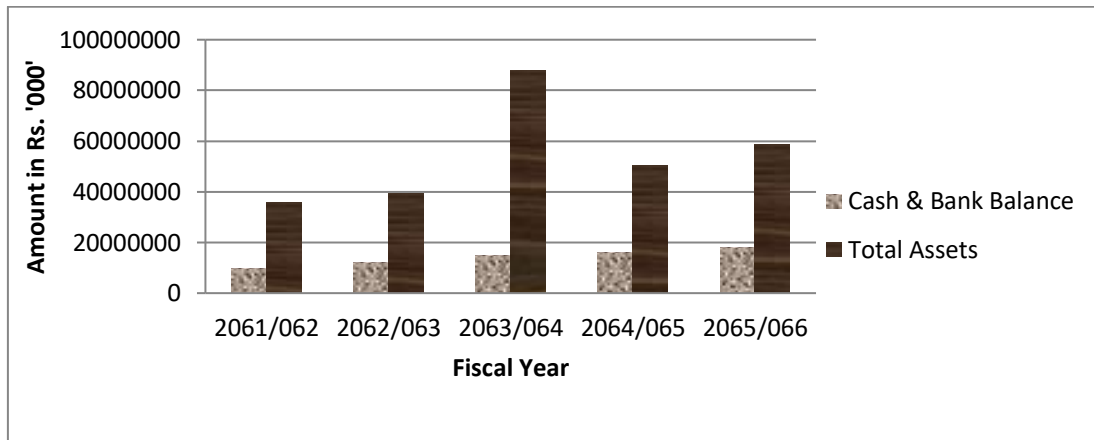
Years	Cash & Bank Balance	Total Assets	(Amount in '000')
			Cash/ Total Assets
2061/062	9574501	35572772	27%
2062/063	12021625	39351406	31%
2063/064	14746338	87985961	53%
2064/065	16134517	50194187	32%
2065/066	18191058	58686689	31%

*Source: Annual Report of NTC.*

According to table the lowest ratio is 27% for the fiscal year 2061/062 and highest ratio is 53% for the 2063/064. In the other year during the study period in 2062/063, 2064/065, 2065/066 is 33%, 32% and 35% respectively.

The below bar diagram shows the position of cash to total assets.

**Figure 4.6**  
**Cash & Bank Balance and Total Assets**



Above figure shows that the highest cash and bank balance is in the fiscal year 2065/066 and lowest is in the year 2061/062. The highest and lowest total assets is in the year 2065/066 and 2063/064 respectively. This visualized that the cash is kept idle without investing in appropriate sector.

#### 4.3.3 Analysis of Cash Average Daily Operating Expenses

Cash to average daily operating expenses indicate the time period during which the available cash could be sufficient to meet operating expenses. However, while taking marketable securities it could be considered whether the same are disposable or not only disposable marketable securities should be added to cash for computing ratios. A higher ratio indicates better position. This is also called internal measures.

$$\text{Internal measures} = \frac{\text{Cash} + \text{marketable securities}}{\text{Average daily operating expenses}}$$

The following table shows that the analysis of cash to average daily operating expenses.

**Table 4.5**  
**Statement Showing the Internal Measures**

(Amount in Rs.'000')

Years	Cash & Bank Balance	Annual operating expenses	Daily operating expenses	Cash/ Average daily operating expenses
2061/062	9574501	4272768	11706	818
2062/063	12021625	4215188	11548	1041
2063/064	14746338	6175128	16918	872
2064/065	16134517	7017854	19227	839
2065/066	18191058	8513592	23325	780

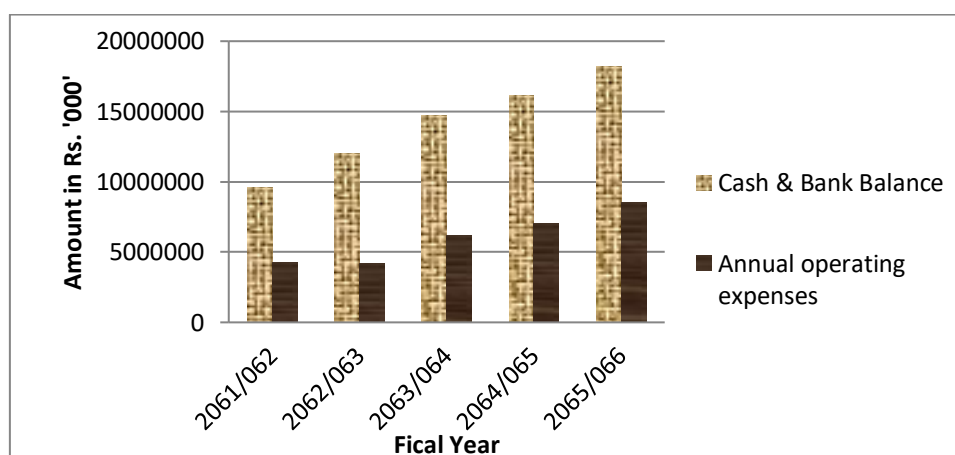
Source: Annual report of NTC.

- The figures in days above have been rounded-up.
- 365 days in a year

As the table shows the company's annual closing cash balance (in 000) was Rs. 9574501, Rs. 12021625, Rs. 14746338, Rs. 16534517, Rs. 18191058 in the fiscal year 2061/062, 2062/063, 2064/065, 2065/066 respectively. Similarly, the average daily operating expenses (in 000) were Rs.11706, Rs.11548, Rs.16918, Rs. 19227, Rs. 23325 in the fiscal year 2061/062, 2062/063, 2064/065, 2065/066 respectively. The company's annual closing cash balance was found to be sufficient to meet the average daily operating expenses of Rs. 818, 1041, 872, 839, 780 days in the fiscal year 2061/062, 2062/063, 2064/065, 2065/066 respectively. Bar diagram shows the cash, annual operating expenses and daily operating expenses as mentioned as below.

**Figure 4.7**

**Cash & Bank Balance and Total Assets**



#### 4.3.4 Analysis of Cash Turnover

This ratio indicates the number of times the average cash balance is turned over during the year. In the other words, cash turnover ratio represents how quickly the cash is receipt from the sales. Higher turnover indicates the good liquidity of the company and vice-versa.

$$\text{Cash turnover ratio} = \frac{\text{Sales}}{\text{Cash in hand} + \text{Bank balance}}$$

In case of Nepal Telecom sales indicates total revenue of the year which is categorized as total revenue from telephone, total revenue from telegraph, leased circuit and other. The following table shows that the analysis of cash turnover to sales.

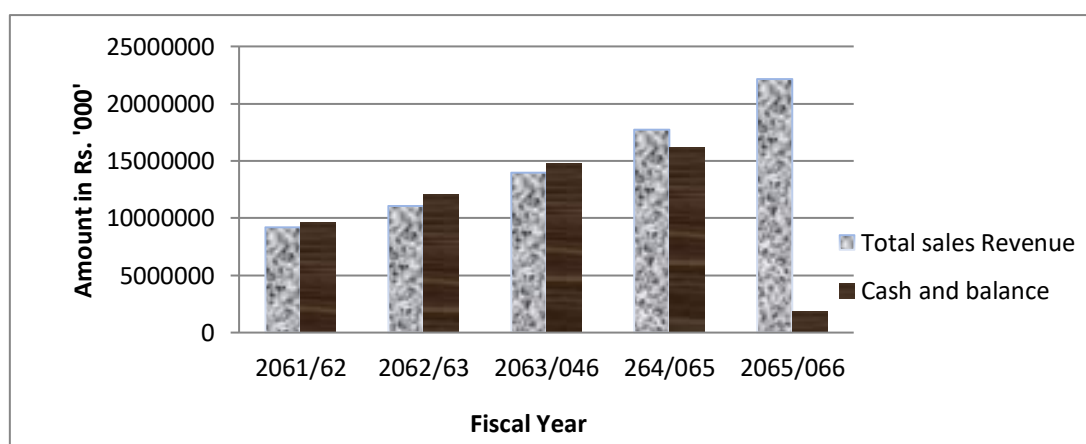
**Table 4.6**  
**Analysis of Cash Turnover**

Amount in Rs. '000'			
Fiscal Year	Total Revenue	Cash and balance	Cash turnover times
2061/62	9194297	9574501	0.96
2062/63	11058915	12021625	0.92
2063/046	13967318	14746338	0.95
264/065	17725164	16134517	1.1
2065/066	22147582	1819058	1.2

Source: Annual Report of NTC.

From the given table it exhibits that the highest cash turnover is 1.2 times in the year 2065/66. The lowest cash turnover is 0.92 times in the year 2062/063. It indicates that the company is unable to collect cash from its credit sales timely. The bar diagrams which is used to show the position of cash balance and sales of the company.

**Figure 4.8**  
**Total Sales Revenue & Cash and Balance**



The bar diagram and yearly trend of cash turnover above shows that the company's cash turnover is in decreasing trend year 2062/63. Then after beings to increase till the duration of the study period i.e. 2065/066. In addition, the turnover ratio was too low, which indicates that the company is unable to utilize its idle cash in generating sales. The company position of liquid cash that remained idle was too high.

#### 4.3.5 Investment of Cash and Bank Balance in Current Assets and Total Assets

**Table 4.7**  
**Investment of Cash and Bank Balance in Current Assets and Total Assets**  
**Amount in Rs. '000'**

Particulars	061/061	062/063	063/064	064/065	065/066
Cash and bank balance	9574501	12021625	14746338	16134517	18191058
Current assets	20598353	22526522	23519754	25000474	28837295
Percent of cash and bank balance	46.48%	53.37%	62.70%	64.54%	63.08%
Fix assets	9040917	10088427	11361043	25193713	29849394
Total assets	2963987	32614949	34880797	50194187	58686689
Percent cash/bank balance on total assets	32.30%	36.86%	42.27%	32.14%	31%

*Source: Annual Report of NTC.*

From the given table it is obvious that the cash and bank balance with respect to current assets has fluctuation trend. The percentage of cash and bank balance on current assets are 46.48, 53.37, 62.70, 64.54 and 63.08 during respectively year. The lower percent during the study year is 46.48% and highest percent is 64.54%.

The cash and bank balance with respect to total assets has also fluctuation trend which are 32.30%, 36.86%, 42.27%, 3214%, 31% for the year 2065/066 and the highest percentage is 42.27% for the year 2063/64.

#### 4.3.6 Analysis of Liquidity Ratio

Liquidity ratios are used to judge a firm's ability to meet short term obligations. From them, much insight can be obtained into the present cash solvency of a company and its ability to remain solvent in the event of adversities. Essentially, we wish to compare short-term obligations with the short term resources available to meet these obligations

##### 4.3.6.1 Current Ratio

One of the most general and most frequently used of these ratios in the current ratio. In another word, the ratio of current assets current liabilities is known as current ratio.

The ratio regarded as a crude measure of liquidity, however because it does not take into account the liquidity of the individual component if the current assets.

In case of Nepal telecom stores and spares, sundry debtors, interest accrual on investment, advance and prepaid expenses, advance and loans to employee, inter-branch balance, bank balance, cash balance, and differed expenditure are total current assets and current liabilities and provisions are to be current liabilities.

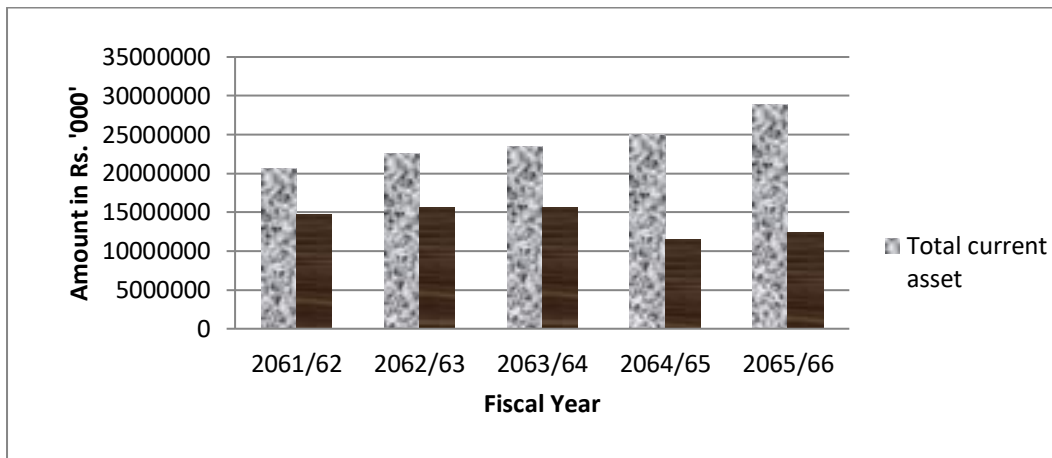
**Table 4.8**  
**Statement Showing the Current Ratio**

Fiscal Year	Total current asset	Total current liabilities	Current ratio
2061/62	20598353	14722678	1.40
2062/63	22526522	15665379	1.44
2063/64	23519754	15675254	1.50
2064/65	25000474	11518713	2.17
2065/66	28837295	12406063	2.32

*Source: Annual Report of NTC.*

From the given table the data shows that the current assets of the company over the study period were good enough to meet the current liabilities. The current ratio of the company is 1.40, 1.44, 1.50, 2.17 and 2.32 in the fiscal year 2061/62, 2062/63, 2063/64, 2064/65 and 2065/66. The higher current ratio of the company is 2.32. The lowest current ratio of the company is 1.40. On an average, the current ratio of the company is 1.65. The higher the ratio the greater the capability of the firm to pay its bills. So that, the current assets of the company was good enough to meet the current liabilities. The following bar diagram shows that the position of the current assets and current liabilities.

**Figure 4.9**  
**Statement Showing the Current Ratio**



#### 4.3.6.2 Quick Ratio/Liquid Ratio

The ratio derived by relation liquid or quick assets to current liabilities is known as quick ratios. "Liquid assets" means those assets, which are immediately convertible into cash without much loss. All current assets except prepaid expenses or advance and inventories are categorized as liquid assets.

$$\text{Liquid ratio} = \frac{\text{Liquid Assets}}{\text{Current Liabilities}}$$

The liquid ratio of the company shows below.

**Table 4.9**  
**Statement Showing the Liquid Ratio**

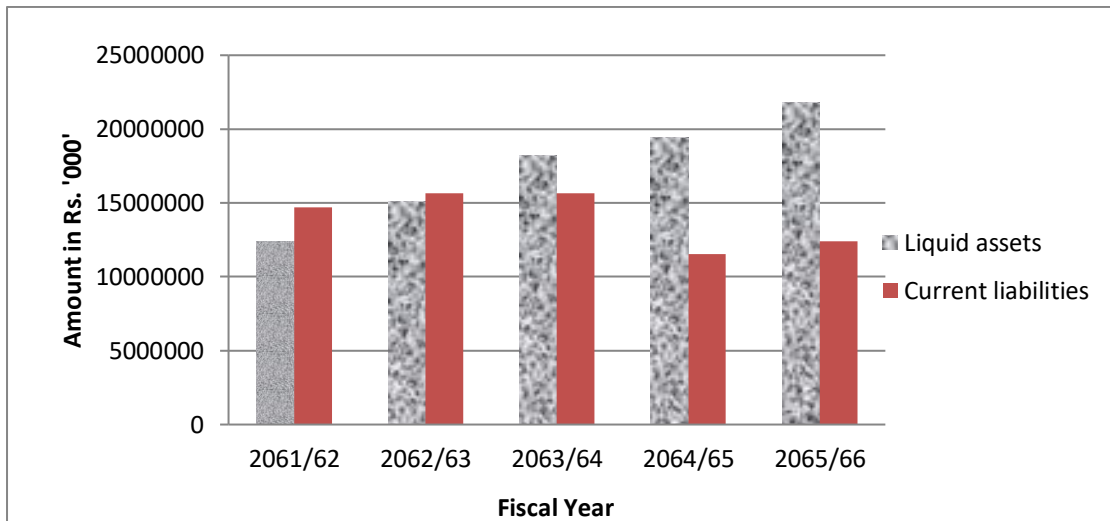
Amount in Rs. '000'			
Fiscal Year	Liquid assets	Current liabilities	Liquid ratio
2061/62	12410412	14722678	0.84
2062/63	15128291	15665379	0.97
2063/64	18201850	15675154	1.16
2064/65	19452981	11518713	1.68
2065/66	21784263	12406063	1.75

*Source: Annual report of NTC*

In case of Nepal telecom, sundry debtors, inter-branch balance, bank balance, cash balance, bill receivable are assumed liquid assets. The table shows the position of highly liquid assets to meet the current liabilities of the company. The liquid ratio of the company is 0.84, 0.97, 1.16, 1.68, 1.75 in the fiscal year 2061/62, 2062/63, 2063/64, 2064/65 and 2065/66 respectively. The highest liquid ratio of the company is 1.75 in the fiscal year 2065/066. Similarly, the lowest liquid ratio of the company is 0.84 in the fiscal year 2061/062.

The following bar diagram shows the position of the liquid assets and current liabilities of Nepal telecom.

**Figure 4.10**  
**Statement Showing the Liquid Ratio**



#### 4.3.7 Analysis of Profitability Ratio

Profitability is the net result of a large number of policies and decisions chosen by a company's management. Profitability ratios indicate how effectively the total firm is managed. The relation of the return of the firm to either its sales or its equity of its assets is known as profitability ratios. The following are the profitability ratios.

##### 4.3.7.1 Operating Expenses Ratio

Operating expenses ratio shows the relationship between operating expenses and sales. It indicates the percentage of sales that the company is expending for operation in the five year study period. Except interest on loan, loans on foreign exchange and income tax provisions, all other items of expense included in operating expenses should not be more than 85% of sales. Higher the percentage if the operating expenses lesser amount of profit or increase in the amount of sales.

$$\text{Operating expenses ratio} = \frac{\text{Total operating expenses}}{\text{Net sales}} \times 100$$

The following table shows that the operating expenses ratio.

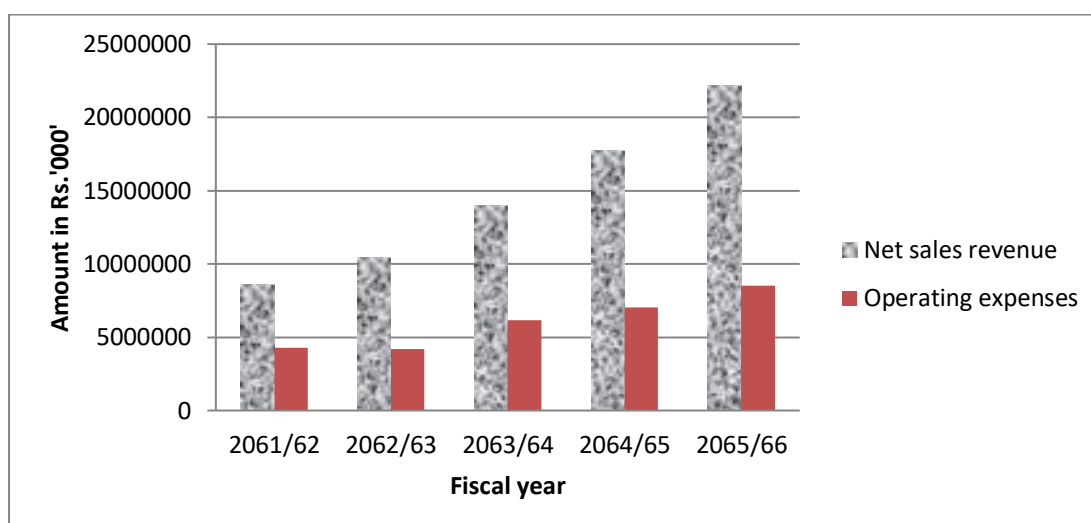
**Table 4.10**  
**Operating Expenses Ratio**

Fiscal Year	Net sales revenue	Operating expenses	Operating expenses rate
2061/62	8584144	4272768	49.78%
2062/63	10413655	4215188	40.78%
2063/64	13967318	6175128	44.21%
2064/65	17725164	7017854	39.59%
2065/66	22147582	8513592	38.44%

*Source: Annual report of NTC.*

From the given table it exhibits that Nepal Telecom has average operating expenses rate comparatively. But year by year operating expenses rate is decreasing which is favorable to the company. 49.78 percent is the highest operating rate and 38.44 percent is the lowest operating rate in the studied year 2061/62 and 2065/66 respectively. A higher operating expenses ratio is unfavorable since it leaves a small amount of operating income to meet interest, dividend etc. If 85% is the standard operating expenses ratio, these enterprises can be taken as successful enterprises. The operating expenses ratio of Nepal Telecom is below 85% over the five year study period. It means non-operating expenses should be very low in proportion but it is not applicable everywhere. Therefore, it can be said that the operating profit of Nepal telecom is very high but the overall profit is not so high due to huge amount of non-operating expenses. In Nepal telecom, there is incurring some unnecessary and wasteful expenses such as heavy addition of plants resulted heavy expenses. Thus the management of Nepal Telecom becomes more careful in cost factor. Nepal Telecom therefore more formulate a concrete and sustainable policy to add plants and to utilize them because idle plant is also not reasonable for institution. Nepal Telecom shall reduce the clot of bad debts written off, repair and maintenance expenses, meeting fees, traveling expenses, legal and professional fees, management and committee fees and to take rational decision for long-term investment on plants and equipments. The following bar diagram below shows that the net sales revenue and operating expenses of the company.

**Figure 4.11**  
**Net Sales Revenue and Operating Expenses**



#### 4.3.7.2 Operating profit ratio:

The ratio established the relationship between operating profit and sales is calculated as follows.

$$\text{Operating profit ratio} = \frac{\text{operating profit}}{\text{Net sales}} \times 1000$$

The following table shows the operating profit to net sales of the Nepal telecom.

**Table 4.11**  
**Operating Profit Ratio**

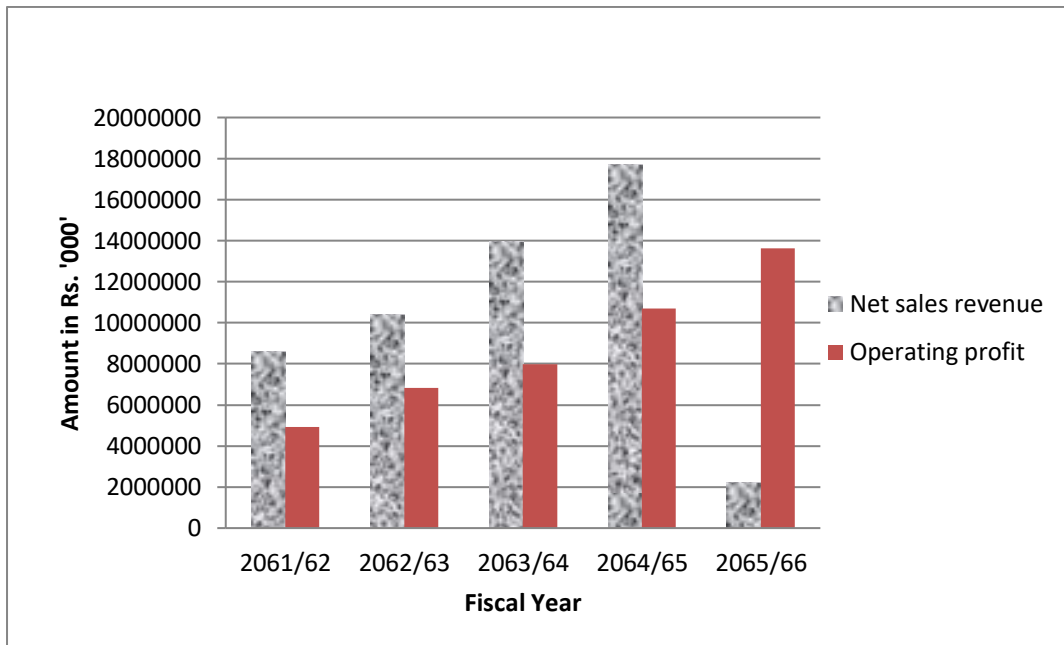
Fiscal Year	Amount in Rs. '000'		
	Net sales revenue	Operating profit	Operating profit rate
2061/62	8584144	4921529	57.330%
2062/63	10413655	6843727	65.720%
2063/64	13967318	7983321	57.16%
2064/65	17725164	10707309	60.41%
2065/66	22147822	13633990	65.56%

*Source: Annual report of NTC.*

The operating profit ratio of Nepal Telecom is calculated in the above table to find out the trend of least five years of operating profit ratio. except fiscal year 2063/64 the trend is increasing. The highest operating profit ratio is 65.56% and lowest operating profit ratio 57.16% on the fiscal year 2065/66 and 2063/064 respectively. To increase operating profit ratio, Nepal telecom should reduce its cost and getting an effort to increase revenue.

The table below bar diagram shows that the net sales revenue and operating profit of the company.

**Figure 4.12**  
**Operating Profit Ratio**



#### 4.3.7.3 Net Profit Ratio

This ratio is very useful to the companies and proprietors as well as investors because it reveals the overall profitability of the concern. This ratio shows the relationship between net profit after taxes and revenue and it calculated as follows:

$$\text{Net profit ratio} = \frac{\text{Net profit after tax}}{\text{Net sales}} \times 100$$

The following table shows net profit after tax to net sales.

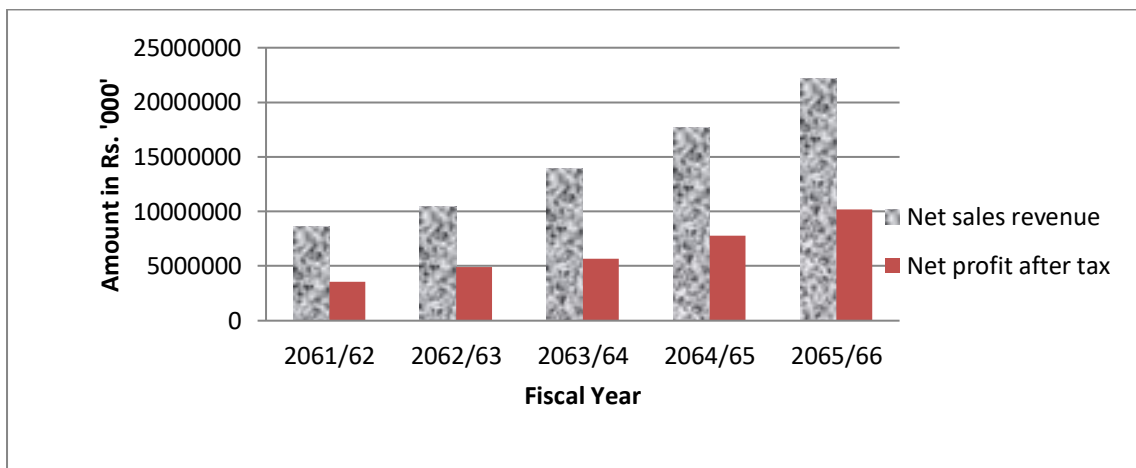
**Table 4.12**  
**Net Profit to Sales Ratio**

Fiscal Year	Amount in Rs. '000'		
	Net sales revenue	Net profit after tax	Net profit ratio
2061/62	8584144	3542461	41.27%
2062/63	10413655	4936647	47.40%
2063/64	13967318	5652688	40.47%
2064/65	17725164	7778755	43.88%
2065/66	22147582	10178025	45.95%

Source: Annual report of NTC.

The above table indicates that Nepal telecom is operating under the net profit over the five year. The highest net profit is 47.40% in the fiscal year 2062/063. Similarly the lowest net profit ratio is 40.47% in the fiscal year 2063/64. Somehow fluctuation is seen over some years. High net profit is a sign of good financial position and the better for the enterprises because it gives idea of improved efficiency of the concern. Therefore, it indicates that, Nepal Telecom has managed operation and success to provide affordable and quality communication. The below bar diagram shows the position of net profit to sales.

**Figure 4.13**  
**Net Profit to Sales Ratio**



#### 7.3.7.4 Return on Investment

This ratio is calculated to measure net profit after tax against the amount investment in total assets to ascertain whether assets are being utilized properly or not. It is calculated as under:

$$\text{Return on investment} = \frac{\text{Net Earning}}{\text{Total Assets}}$$

The following below table shows that the net earning to total assets.

**Table 4.13**  
**Return on Investment**

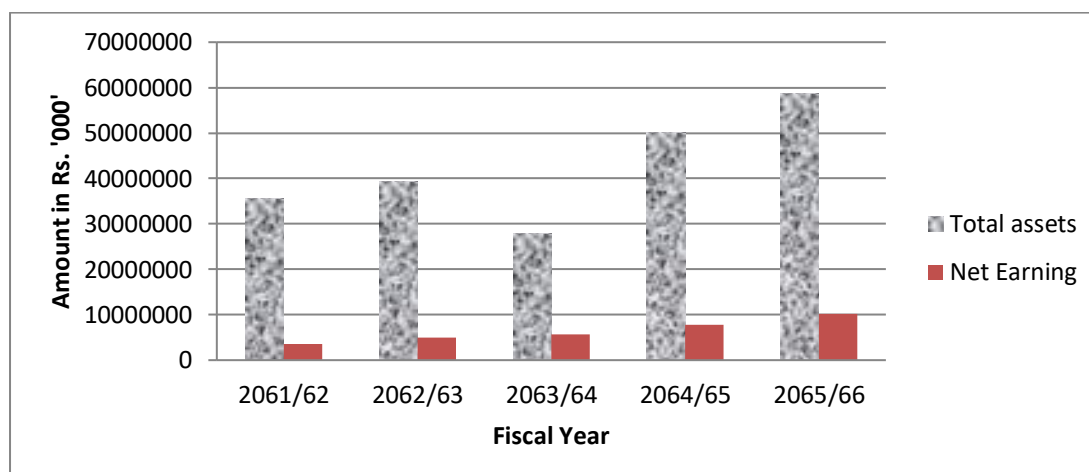
Amount in Rs. '000'

Fiscal Year	Total assets	Net Earning	ROI
2061/62	35572772	3542461	9.96%
2062/63	39351406	4936647	12.55%
2063/64	27985961	5652688	20.20%
2064/65	50194187	7778755	15.50%
2065/66	58686689	10178025	17.34%

*Source: Annual report of NTC.*

The table shows that return on total assets varies from 9.96%, 12.55%, 20.20%, 15.50% and 17.34% from the fiscal year 2061/62 to 2065/66. The following bar diagram shows the position of total assets and net earnings.

**Figure 4.14**  
**Return on Investment**



#### 4.4 Analysis of Cash Flow Statement

Cash flow statement is an important tool, which provides information to its users about the ability of the company to generate and its utilization. It signifies the movements of cash in hand and out of company. In recent years, the statement of cash flows has come to be viewed as a part of full set of financial statement. Nepal Telecom prepares cash flow statement and it is used to analyze the cash inflows and outflows during a designated time period and estimates the probable future cash deficits or surplus. Inflows of cash known as sources of cash and outflow are called use of cash. The most important aspects of cash flow management are avoiding cash shortages, caused by having too great a gap between cash inflows and outflows. In Nepal, Many entrepreneurs is making profit then why doesn't have enough/any cash?

This is major problem of today's entrepreneur. Therefore, business manager should need to perform a cash flow analysis and this second step of cash flow management is to develop and use strategies that will maintain an adequate cash flow for business. The actual cash flow statement is typically divided on the headings of cash flow from operating activities, cash flow from investing activities and cash flow from financing activities for the fiscal year 2061/62 to 2065/66.

The following table shows that the position of cash flow from operating, investing and financing activities and their mean, growth rate and percentage of cash flow from operating activities with operating profit.

**Table 4.14**  
**Statement Showing Cash Flow from Various Activities**

**Amount in Rs. '000'**

Fiscal Year	2061/62	2062/63	2063/64	2064/65	2065/66
Activities					
CFOA	482797.506	6722360.621	8052325.466	9799160.046	10716850.813
CFIA	(2959553.114)	(2483522.527)	(3326419.166)	(5709497.306)	(4955364.151)
CFFA	(3187010.931)	(2071719.115)	(1475161.719)	(2701483.949)	(3704945.329)
Net operating profit	4921529.000	68443727.000	7983321.000	10707.309	13633990.000
% of CFOA with operating profit	98%	98%	99%	92%	79%

*Source: Cash flow statement of NTC for relevant year.*

Again, calculation of growth rate of operating, investing and financing activities

**Table 4.15**  
**Growth Rate of Operating, Investing and Financing Activities**

<b>Fiscal year</b>	<b>Growth rate of operating activities</b>	<b>Growth rate of investing activities</b>	<b>Growth rate of financing activities</b>
2061/62	-	-	-
2062/63	39%	(16%)	(35%)
2063/64	20%	(34%)	(29%)
2064/65	22%	(72%)	(83%)
2065/66	10%	(14%)	(38%)

*Source: Cash flow statement of NTC for relevant year.*

The above table shows that cash flow position of the company in different fiscal year. From fiscal year 2061/62 to 2065/66 cash inflow in operating activities is increasing year by year. However, cash inflow position from operating activities in year 2061/62 is significantly lower in comparison to other fiscal year. It is Rs. 482797506. Cash flow from operating activities shows that strong position of the NTC. Cash outflow in investing activities are high in year 2064/65. In rest of study period there was cash outflow in investing but not as much as in year 2064/65. This shows that the company was extending its services and projects. This shows that the company was in growing stage. Company has negative cash flow in financing activities from the fiscal year 2061/62 to 2065/66 that means it was paying its long liabilities. Company has paying back its own and investing its funds. Similarly, which become possible because of retained earning. Cash flow from operating activities was ploughed for the investment and loan payment. These all of the above condition shows that the strong position of the company.

Percentage ratio of cash flow from operating profit is increasing and decreasing during the study period. The operating profit of the company is 98%, 98%, 99%, 92% and 79% in the fiscal year 2061/62 to 2065/66 respectively. The above trend shows that the company is in profit but not in proper planning. If there is proper planning the company can achieve more profit in future. In the fiscal year CFOA 2061/62 to 2065/66 is Rs. 482797506, 6722360621, 8052325466, 9799160046, 10716850813

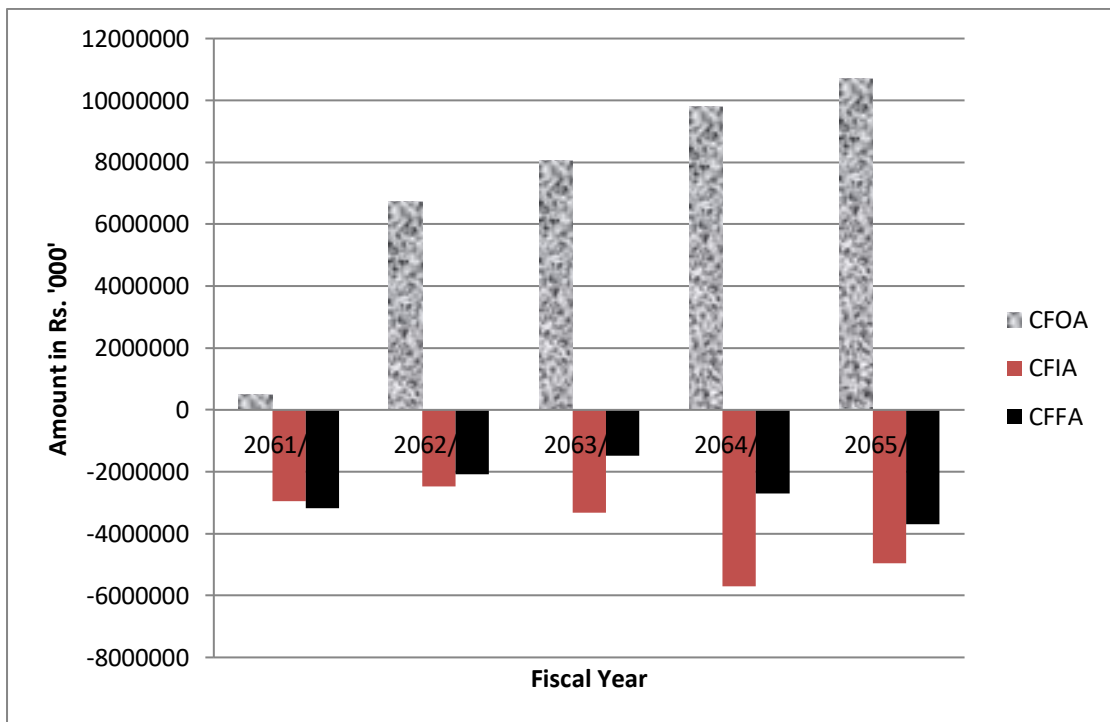
respectively. Finally, it is good position of the company. Similarly, in investing activities during the study period is (2959553114), (2483522527), (3326419166), (5709497306), (4955364151). It shows the good position of the company.

Last but not least during the study period the financing activities is (3187010931), (2071719115), (1475161719), (2701483949), (3704945329) respectively. This show the good position of the company.

Growth rate of operating activities is in decreasing trend. In the fiscal year 2062/63 the highest growth rate is 39% and the lowest growth rate is 10% in the fiscal year 2065/66.

The following bar diagram shows that the position of the cash flow from operating, financing and investing activities.

**Figure 4.15**  
**Cash Flow from Various Activities**



The above bar diagram shows the cash flow position from operating, financing and investing activities. Cash flow of investing and financing is in negative form. This shows that the NTC is investing huge amount of money in financing and investing activities is increasing year by year. Finally the closing balance of NTC of all the fiscal year is positive and increasing year by year. This shows the good position of the

company. Therefore, the company should adopt the effective cash management policy for the better utilization of cash.

### **Major Findings**

The following are the major findings derived from the study.

- a) Analysis of cash balance shows that the company has enough balance. In every year of the study period the balance is increasing and some year in decreasing trend.
- b) From the analysis of cash to current liabilities to five fiscal year period. It was found that the cash position of the company was very strong but it shows that cash was not managed properly which may yield more return to the company.
- c) From the analysis cash of total assets ratio, it comes to know that cash is the major component in the pie of total assets. It shows that cash is kept idle without investing in appropriate sector.
- d) Internal measure or cash to average daily operating expenses show that the company's annual closing cash balance (in million) was Rs. 9574.501, Rs. 12021.625, Rs. 14746.338, Rs. 16134.517, and Rs. 18191.058 in the fiscal year 2061/62, 2062/63, 2063/64, 2064/65, 2065/66 respectively. Similarly, the average daily operating expenses (in million) was Rs. 11.706, Rs 11.548, Rs. 16.918, Rs. 19.227 and Rs. 23.325 in the fiscal year 2061/62, 2062/63, 2063/64, 2064/65, 2065/66 respectively. The company's annual closing cash balance was found to be sufficient to meet the average daily operating expenses of Rs 818, Rs 1041, Rs. 872, Rs 839 and Rs. 780 in the fiscal year 2061/62, 2062/63, 2063/64, 2064/65, 2065/66 respectively.
- e) Under the liquidity analysis, current ratio, liquidity ratio were used. A current assets of the company over the study period was good enough to meet the current liabilities. The position of the highly liquid assets to meet the current liabilities of the company was found more than sufficient.
- f) Profitability ratios of the NT shows that the operating expenses ratio during the studied period are less than operating profit rate. It shows that the good position of the company.
- g) Correlation coefficient value shows that there are positive correlation between cash balance and sales and by regression line it is clear that future revenue will increase with compare, if other thing remaining the same.

h) Cash flow of the company in different fiscal year was discussed in actual cash flow analysis portion of the study. From fiscal year 2061/62 to 2065/66 cash inflow from operating activities was increasing year by year. Same way the cash flow from investing is decreasing in year 2062/63 than the other studied period. Increasing the amount in the investing shows that company was extending its services and projects. Company has negative cash flow in financing activities, it means that it was paying long term liabilities.

## CHAPTER - FIVE

### SUMMARY, CONCLUSION AND RECOMMENDATION

#### 5.1 Summary

Most of the companies invest a huge amount of cash for their purchases operation and for other purpose and activities. NTC has also invested a huge amount of cash for moving the company effective cash management is needed to maintain a well position of cash and for effective usage of cash. It directly affects the company's profitability. It means an effective management of cash increases the profitability of the company. The present study focuses on the cash management adopted by the NTC. It tries to analyze the cash management of NTC for last five years period from 2065/66. The main objective of this study is to show true might into its "cash management" and an attempt has been made in the study to provide a possible suggestive framework, for better cash management.

Nepal Telecom is a monopolistic company of Nepal but it is unable to achieve its objectives well. Nepal Telecom has a challenge to operate in a systematic manner that improves the key business process sales performance of Nepal Telecom is satisfactory and sales revenue is increasing every year but not in same ratio. Nepal Telecom is also suffering from the problem of intervention after converted to public company. The government appoints most of the board of directors and political parties has given pressure to telecom management.

Through the study, it is found that Nepal Telecom has huge amount of cash or bank balance. Cash as a means and ends of business operation must be held in sufficient. Holdings of cash in excess and insufficient than requirement may lead a firm to problems.

The main source of cash of Nepal Telecom is sale of telecom services. Besides these sources company receives income from sale materials, maturity of financial investment and other. Company uses its cash to purchase telephone exchange, materials, capital expenditures, administrative expenses, employee cost, operating and maintenance cost etc. And the company holds cash for transaction motives. Nepal Telecom has getting effort for cash management in a firm, which helps the company to maintain sufficient liquidity and also the same time improve its profitability.

At last, this study specially focuses on cash management practices of Nepal Telecom. As stated in the introduction chapter, the objective of the study are to observe the planning and controlling of cash in NTC, to identify surplus and cash position in the company, sources of financing sector of investment and to study liquidity position of the company. Review of related literature and previous studies has been concerned in the second chapter. Tools and techniques, which was implemented in the fourth chapter has been described in chapter three. Fourth chapter includes presentation and analysis of data. Hence, an effort has been made in this chapter to present specific aspects of cash management practice of Nepal Telecom.

## **5.2 Conclusion**

Although the liquidity and cash position of the company is very strong. It can not be concluded that the cash management practices in Nepal Telecom was satisfactory in general. Company has been adopting various management tools and techniques like annual cash budget, annual actual cash flow statement, provision of financing and investing for cash management of the company. But it only plays formal role and fails to screen the weakness of the cash management. It doesn't apply any corrective action although its own annual analyses indicate weak situation of cash management in some sector. Having analyzed the overall cash management of Nepal telecom, the following conclusion is drawn. Company was able to collect more cash from different sources than it targeted in the budget. It shows good position of actual cash collection of the company. On the other hand, company did not spend cash as it targeted. Due to these facts, there was enough surplus cash in hand every year. But company could not manage the surplus could not manage the surplus in the productive sector. It was unable to cope-up with the market demand, which could have fulfilled through tracking the surplus cash in the profitable sector.

The study shows that company has high liquidity which adversely affects profitability of the company. Moreover, it fails to invest surplus cash in appropriate investment sector. Instead of investing surplus, there was separate budget for investment, which was compulsory in nature. Company has also taken external loan from foreign institution, which was not required to borrow. It was able to meet its expense of budget by its own sources. The average elasticity of sales with respect to their cash flows can be regarded a positive correlation. The analysis revealed that cash balance in the function of sales and cash balance would be increased on sales. Nepal telecom

has positive cash flow which shows the good position of the company. Sometimes it is to worry about what to do with the excess cash. The quality of management itself is a scarce factor is Nepal Telecom.

### **5.3 Recommendation**

Cash management is one of the most important elements of overall cash management area which is interrelated and integrated with economic planning and controlling of management. Financial efficiency is important for achieving the goal of any business enterprises. On the basis of the study considering target objectives, following recommendations are given for healthy financial performance and better cash management of the company.

#### **Appropriate Investment Policy for Surplus Cash**

On the basis of study, there seems enough cash surplus than it was required so; there must be appropriate policy and strategies to use that surplus cash in profitable sector.

#### **Maintain Liquidity in Balance**

There is high liquidity of the company. If the liquidity of the company is too high, it adversely affects the profitability of the company. So, the company should hold the cash required to run annual operating expense. Idle cash should be utilized in appropriate sector; which can be for extending services of the company.

#### **Use Internal Source in Full Capacity**

Internal sources are sufficient to finance whole budgeted expense of the company. It should not borrow loan from foreign institution because it involves cost.

#### **Interest on Long Term Loan**

Nepal Telecom is paying a huge amount as interest on long term loan, which is not good for company. So, it should emphasized internal financing to minimize such burden.

#### **Use Tools and Techniques**

The financial position of the company should be timely evaluated through the ratio analysis and other relevant financial and mathematical tools.

### **Make Effective Plan and Programmed**

Nepal Telecom should be made effective plan and programmed. It should be analysis on the basis of company's ability. It is because; the company made maximum play on adhoic basis. So, system of proper sales forecasts and budgeting needs to be adopted and followed.

### **Network Busy Problem**

Since the subscriber of NTC are increasing day by day, it is good in the context of the company. But the subscriber are getting problem of network busy, no clear sound. So the management should try to delete all such kind of problems, which will be fruitful to the company and the subscriber too.

### **Future scope for researchers**

This study covers only five years data. Various important variables which are directly associated with cash demand functions such as capacity utilization, production, dividend payments etc. are not considered in this study. so, these variables could be analyzed in the future. Simple tools for financial and statistical analysis have been used in this study. In the future research more advanced tools and sophisticated models can be applied.

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## APPENDICES

### Appendix - I

#### Straight-line trend, Correlation and Regression analysis

Fiscal Year	Cash Balance (Y)	$x = (X - \bar{X})$	$x^2$	XY
2061/62	9584.469	-2	4	-19168.938
2062/63	12028.795	-1	1	-12028.795
2063/64	14746.338	0	0	0
2064/65	16134.517	1	1	161.34.517
2065/66	18191.058	2	4	36382.116
Total	70685.177	$\sum x = 0$	$\sum x^2 = 34$	$\sum xY = 21318.9$

Source: Table 4.1

Fiscal year 2063/64 is assumed as base year.

Where, X = Number of observation time

Y = Cash balance

$$\bar{X} = 3$$

Straight line trend  $Y_c = a + bx$

$$a = \frac{\sum Y}{n} = \frac{70685.177}{5} = 14137.0354$$

$$b = \frac{\sum XY}{\sum x^2} = \frac{21318.9}{10} = 2131.89$$

Therefore,  $Y_c = 14137.0354 + 2131.89x$

The above trend line shows the positive figure of cash balance for future. The annual rate of increment of cash is to be  $\text{Rs.}2131.89 \times 1000000 = \text{Rs.}2131,89,000$

By the help of straight line equation, we can estimate the future cash balance 2066/67.

Estimated cash balance for F/Y 2066/67 =  $14137.0354 + 2131.89 \times 3$

$$= 20532705400$$

By the help of straight line trend, cash balance will be straightly increasing trend.

Karl Pearson's coefficient of correlation 'r' is determined to find out the correlation between sales and cash balance for determining the Karl Pearson's coefficient of

correlation sales 'x' are assumed to be dependent variables and cash balance 'y' are assumed to be independent variable. It is also assumed that sales will increase or vice-versa. It means there should be positive correlation between cash balance and sales. Probable error (PE) of 'r' is used to test the significance of the correlation.

Correlation 'r' between sales and cash balance:

FY	Sales (X)	Cash (Y)	$\mu = (x - \bar{x})$	$v = (y - \bar{y})$	$\mu^2$	$v^2$	$\mu v$
061/06 2	8584.144	9584.469	449	-2935	201601	8614225	-1317815
062/63	10413.655	12028.795	2278	-491	518928 4	241081	-1118498
063/64	13967.318	14746.338	-601	609	361201	370881	-366009
2064/6 5	17725.164	16134.517	3157	1998	996664 9	3992004	6307686
2065/6 6	22147.582	18191.058	7580	4054	574564 0	16434916	30729320
	$\sum x =$ 40677.65	$\sum y =$ 62597.836	$\sum \mu = 0$	$\sum v = 0$	$\sum \mu^2 =$ 10186119	$\sum v^2 =$ 133849036	$\sum \mu v =$ 9940956

Source: Table no.

$$\bar{x} = \frac{72837.863}{5} = 14567.57 \cong 14568$$

$$\bar{y} = \frac{70685.177}{5} = 14137.0354 \cong 14137$$

$$\begin{aligned} \sigma_x &= \sqrt{\frac{\sum x^2}{n}} \\ &= \sqrt{\frac{1208222}{5}} \\ &= 4916.26 \end{aligned}$$

$$\begin{aligned} \sigma_y &= \sqrt{\frac{\sum y^2}{n}} \\ &= \sqrt{\frac{41971974}{5}} \\ &= 2897.31 \end{aligned}$$

$$\begin{aligned}
r &= \frac{\sum uv}{\sqrt{\sum u^2 \sum v^2}} \\
&= \frac{72672781}{\sqrt{120848222 \times 41971974}} \\
&= \frac{72672781}{72819649.2} \\
&= 0.98
\end{aligned}$$

The value of 'r' shows that there is positive correlation between sales and cash balance. Computation of probable error.

$$\begin{aligned}
PE &= 0.6745 \times \frac{1 - (1.02)^2}{\sqrt{5}} \\
&= 0.6745 \times \frac{1 - 1.0404}{2.2360} \\
&= -0.00122
\end{aligned}$$

Since,  $R > PE$ , it is not at all significant i.e. there is evidence of correlation.

To show the degree of relationship between sales and cash balance, a regression line can be fitted. Cash balance can be forecasted by the value of sales. So, the cash balance and sales have been assumed interrelated economic variables.

In this situation the regression line of sales x on cash balance y is:

$$(x - \bar{x}) = r \frac{\sigma_x}{\sigma_y} (y - \bar{y})$$

$$\text{Where, } \bar{x} = 14568$$

$$\bar{y} = 14137$$

$$r = 1.02$$

$$\sigma_x = 4916$$

$$\sigma_y = 2897$$

$$(X - 14568) = 1.02 \times \frac{4916}{2897} (y - 14137)$$

$$(X - 14568) = 1.731(y - 14137)$$

$$X - 14568 = 1.731Y - 24771.15$$

$$x = 1.731Y + 14568 - 24471.15$$

$$= 1.731Y + 9903.15 \cong 1.731Y + 9903$$

This equation shows that sales will be increase by 0.7424, per unit increase in cash balance. Next the regression line of cash balance y on sales x is as under,

$$(Y-\bar{y})=r \frac{\sigma_y}{\sigma_x}(x-\bar{x})$$

$$\text{Or, } (y - 14137) = 1.02 \frac{2897}{4916} (x-15468)$$

$$\text{Or, } (y-14137) = 1.02 (x-15408)$$

$$\text{Or, } y-14137 = 0.601X-9297.60$$

$$\text{Or, } y = 0.601X-9297.60+14137$$

$$\therefore y=0.601x+4839.4$$

According to above assumption cash balance will be increase by 0.601 per unit increase in sales.

## Appendix – IV

### Cash flow Statement of Financial Year 2063/64

As at Ashadh 32, 2064 (July 16, 2007)

Particulars		July 16, 2007 (Rs)	July 16, 2006 (Rs)
Cash flow from operating Activities			
Net profit before Tax		7,983,321,923	6,843,726,817
Adjustment			
Depreciation	1,366,504,461		1,196,136,319
Deffered expense	58,374,511		40,029,002
Foreign Exchange Gain/Loss	526,031,496		(280,005,092)
Provision for staff Bonus & Incentive	484,410,505		322,040,673
Provision for Pension & Gratuity	286,083,269		241,389,693
Interest on Loan	0		1,107,992
Provision for doubtful debt	200,365,023		0
Income for investment and bank deposit	(701,827,1093)		(596,837,682)
Lost expenses	122,922,321		8,530,000
Optical equipment stock expenses	37,269,943		
Royalty	811,462,056		591,807,155
Provision for earned leave	71,726,050	3,263,322,442	65,980,439
Operating Profit before working capital changes		11,246,647,365	8,433,905,316
Adjustment for working capital change			
Increase in account receivable	(556,380,754)		(273,552,303)
Decrease in stock	655,293		(34,258,671)
Decrease in interest occurred	4,299,996		2,463,849
Increase in advance tax	(2,704,683,614)		(1,684,603,393)
Increase in advance payment	(272,560,616)		382,501,564
Increase in stock	(13,388,009)		2,798,001
Increase in payable	1,203,753,677		618,496,246
Interest paid	0		(2,335,181)
Payment of royalty	(563,687,484)		(370,641,219)
Payment of earned leave	(21,694,453)		(22,011,777)
Payment of pension	(35,997,668)		(30,048,819)
Gratuity receive	899		8,251
Payment of bonus and incentives	(248,788,172)		(301,638,899)
Last year adjustment	72,974,138		12,68656
Last year income tax adjustment	(58,792,129)		

Change in working capital		(3,194,318,899)	(1,711,544,695)
Net cash flow from operating activities (A)		8,052,325,466	6,722,360,621
Cash flow from investing activities			
Purchase of fix assets	(1,667,711,724)		(2,243,645,653)
Increase in capital work in progress	(1,443,449,678)		15,787,272
Additional expenses	(190,177,657)		(34,287,106)
Increase in investment	(726,907,300)		(818,214,722)
Income from investment and bank deposit	701,827,193		596,837,682
Net cash flow from investing activities (B)		(3,326,419,166)	(2,483,522,527)
Cash flow from financing activities			
Receipt in long-term debt	0		0
Payment of long term debt	0		(24,238,654)
Payment of dividend	(664,157,229)		(433,510,216)
Payment of last year dividend	(811,004,490)		
Repayment of retained earning	0		(1,611,651,503)
Capital reserve	0		(2,318,742)
Net cash flow from financing activities (C)		(1,475,161,719)	(2,071,719,115)
Net increase in cash A+B+C		3,250,744,581	2,167,118,979
Cash at beginning of the year		12,021,624,867	9,574,500,796
Foreign exchange gain/loss		(526,031,496)	280,005,092
Cash at the end		14,746,337,952	12,021,624,867

## Appendix - V

### Cash flow Statement of Financial Year 2064/65

Particulars		July 16, 2007 (Rs)	July 16, 2006 (Rs)
Cash flow from operating Activities			
Net profit before Tax		10,871,456,130	7,983,321,923
Adjustment			
Depreciation	1,486,129,221		1,366,504,461
Amortization of license and Deffered expense	71,161,467		58,374,511
Provision for liabilities	1,1183534673		1,202,777,111
Income for investment and bank deposit	(903,773,320)		(701,827,193)
Increase or decrease in working capital	(2,491,821,887)		(2,076,377,446)
Payment of pension and gratuity	(47,309,251)		(35,997,668)
Total adjustment		(1072296084)	(457,027,953)
Payment of bonus and incentives adjustment	(352,654,534)		(248,788,172)
Net cash flow from operating activities (A)		9,799,160,046	7,526,293,970
Cash flow from investing activities			
Acquisition of property, plant and equipment	(3,047,176,047)		(1,667,711,724)
Increase in capital work in progress	(76,639,761)		(1,443,449,678)
Adjustment of amortized premium	(3,128,435)		(190,177,657)
Increase in investment	(3,486,326,383)		(726,907,300)
Interest from investment and bank deposit	903,773,320		701,827,193
Net cash flow from investing activities (B)		(5,709,497,306)	(3,326,419,166)
Cash flow from financing activities			
Payment of interest	(10,303,949)		0
Receipt in long-term loan	(1,191,680,000)		(664,157,229)
Payment of dividend	(1,499,500,000)		(811,004,490)
Net cash flow from financing activities (C)		(2,701,483,949)	(1,475,161,719)
Net increase in cash A+B+C		1,388,178,791	2,724,713,085
Cash at beginning of the year		14,746,337,952	12,021,624,867
Cash at the end		16,134,516,743	14,746,337,952
Significant accounting policies and notes to the account	19		

## Appendix - IX

### Profit and loss Account at the end of 2065

Particular	This year 2065 Ashad	Previous year 2064 Ashad
Income		
Income from services	16,788,359,646	13,524,367,590
Gross profit/loss on sale of goods	70,046,876	(172,100,016)
Miscellaneous income	127,130,424	82,478,009
Total income	17,889,310,266	14,136,572,776
Expenditure		
Personnel cost	1,598,344,420	1,280,523,441
Operation and maintenance cost	1,219,001,769	797,397,460
Administrative cost	911,480,928	761,403,953
Royalty	671,534,386	540,974,704
Contribution to rural telecom development fund	335,767,193	270,487,352
Interest on subscribers deposit	83,003,259	67,142,870
Interest on loan	10,303,949	0
Depreciation	1,486,129,221	1,366,504,461
Exchange loss/gain	2,675,764	526,031,496
License fee	37,839,000	37,839,000
Deferred expenses	33,322,567	20,535,511
Enlistment and annual fee	22,500,000	0
Staff bonus provision	256,559,685	240,543,875
Staff incentive provision	349,391,995	243,866,630
Total expenditure	7,017,854,136	6,153,250,853
Net profit before tax	10,871,456,130	7,983,321,923
Provision for income tax		(2,330,633,432)
Current tax	3,130,318,377	
Deferred tax	201,763,845	
Net profit taken to statement of changes in equity	7,942,901,598	5,652,688,491

Significant accounting policies and notes to accounts:

### Appendix - XIII

#### Balance Sheet at the end of 2065

	This year Rs. 2065	Previous year Rs. 2064
Capital and liabilities		
Capital reserve		
Share capital	15,000,000,000	15,000,000,000
Reserve and surplus	20,343,894,199	13,294,280,845
Loan		1,191,680,000
Total	35,343,894,199	29,485,960,845
Assets		
Fix assets		
Total assets	27,241,988,330	24,234,180,530
Less: accumulated depreciation	(14,344,285,245)	(12,873,137,914)
Total assets	12,897,703,085	11,361,042,616
Capital work in progress	3,922,699,435	3,764,646,777
Investment	8,370,182,100	4,883,855,717
Deferred tax assets	987,110,643	
Current assets		
Inventory	416,424,150	327,684,142
Bad Debtors	3,482,610,821	3,455,511,680
Cash and bank	16,134,516,743	14,746,337,952
Loan advance and others	4,147,086,656	5,088,713,111
Current assets	24,180,638,361	23,618,246,885
Current liabilities	7,915,500,962	6,715,883,084
Provision	7,098,938,463	7,459,270,633
Current liabilities and provision	15,014,439,425	14,175,153,717
Total current assets	9,166,198,936	9,443,093,168
Added expenses		33,322,567
Total	35,343,894,199	29,485,960,845

Significant accounting policies and notes to the account.