CHAPTER-1
INTRODUCTION

1.1 General Background

With the increase in the national economic activities, need of financial institutions to perform the various financial activities were felt. Financial Institutions are those organizations with or without profit motive, established under the act of the host country to perform various financial transactions under the rules and regulation of central bank. Banking system is known as backbone for nation's economy. A banking institution is indispensable in a modern society. It plays a vital role in the development of economy of the country and forms the core of the money market in an advanced country. In the current background of the rapid expansion of the bank and financial intuition network along with the financial sector liberalization, the implementation of this monetary policy will enhance the effectiveness of the NRB to undertake appropriate regulation, supervision and monitoring responsibilities for the qualitative development of the financial sector. For supervision, regulation and monitoring of Banks and financial institutions, NRB has issued NRB Directives.

Financial development is one of the key indicators of economic growth for any country. Financial institutions grant regular energy for investment, which is needed for economic development. The financial sector of any country comprising banks, finance companies, insurance companies, co-operatives societies, stock market, foreign exchange markets, mutual funds, provident fund etc. play a great role in the enhancement of the country's economic sector. The country having liberal economy from non- liberal economy in the financial sector of the country.

Banks assist both the follow of goods and services from the producer to the consumer and he financial activities of the government .Banking provides the country with a monetary system of making payment and is an important part of financial system, which makes loans to maintain and increase the level of consumption and production in the economy. (The American banker Association, 1972).

Financial institutions ability to fulfil its mission and objectives largely depends up on the capital structure of these institutions. Large amount of money that is needed at the time of establishment of these institutions as the starting capital is normally assumed as the capital. In fact, sound banking and other financial institutions improve resource allocation and thus stimulate economic growth. Also, prudent regulatory mechanisms promote healthy financial development.

More than a decade has passed since the Basel Committee on Banking Supervision (the Committee) introduced its 1988 Capital Accord (the Accord). The business of banking, risk management practices, supervisory approaches, and financial markets each have undergone significant transformation since then. In June 1999 the Committee released a proposal to replace the 1988 Accord with a more risk-sensitive framework, on which more than 200 comments were received. Reflecting those comments and the results of ongoing dialogue with the industry and supervisors worldwide, the Committee is now presenting a more concrete proposal, seeking comments from interested parties by 31 May 2001.The Committee has expected the final version of the new Accord to be published around the end of 2001 and to be implemented in 2004.

Capital adequacy has been focus of many studies and regulator as it has been considered as one of the main drivers of any financial institutions profitability. Capital requirement (also known Capital adequacy) is the amount of capital a bank or other financial institution has to hold as required by its financial regulator. This also provides significant information about firms returns (Christian et. al 2008). Banks capital adequacy regulation also impacts the economic system (Teglio, Raberto & Cincotti 2012).

Capital requirement refers to the standardized requirements in place for banks and other depository institutions, which determines how much capital is required to be held for a certain level of assets through regulatory agencies such as the Bank for International Settlements, Federal Deposit Insurance Corporation or Federal Reserve Board. These requirements are put into place to ensure that these institutions are not participating or holding investments that increase the risk of default and that they

have enough capital to sustain operating losses while still honouring withdrawals. It is also known as regulatory capital.

For the effective and smooth operation of the financial system of the country, every financial institution needed to be regulated by the authorized body of the country backed by various suggestions prescribed by international regulatory bodies. Among the various regulation, capital regulation to them seems very important in terms of managing the liquidity as well as to minimize the various risks associated with the investment of the financial institutions. These risks are commonly known as credit risk, market risk and operational risk. Capital should be managed in accordance with the security and provision required for all types of risks mentioned above so that protection to the depositors and appropriate return on investment can be ensured.

Lending (Investment) in financial sense is placing of money in the other for their use expecting a return or the participation in expected profits. But for manufacturing and trading firms the terms investment will be long term expenditures that aim at increasing return of efficiency or at building up goodwill thereby producing and increasing return over as period. Investment also seek to manage their wealth effectively obtaining the most from it, while protecting it from inflation, taxes and other risks.

Banking sectors play a vital role in the Process of canalizing the available resources in the needed Sectors. Financial system contacts two component i.e. depositary financial institution and non-depository financial institution. Commercial banks are depositary financial institution whereas employed providence fund, development bank insurance companies etc are non depositary financial institutions, all the economic activities are directly or indirectly channelled through banks. Banks accept money as a deposit from public and invest it in form of loan and advances. Financial institutions act as an intermediary role between the persons who lend and who borrow. Bank pools the scattered fund and mobilizes them in productive sector .bank came into existence mainly with the objective of collecting the idle Fund, mobiles them into productive sector and causing an overall economic development. The bankers have the

responsibility of safeguarding the interest and deposited amount of depositor. The word CAMELS can be used to judge the soundness of bank(Baral,2005) . It stands for

C : Capital Adequacy

A : Asset Quality

M : Management Quality

E : Earning

L : Liquidity

S : Sensitivity for Risk

NRB has set down various rules and regulation for banks and the banks has to follow them. So, NRB is also known as banker's bank. If the banks do not follow the rules and regulations issued by the central bank, the bank will be obliged to pay penalties. Generally, to bring uniformity and to amend the rules and regulations, NRB issues directives to the banks from time to time and amends them on "need basis". The banks have to modify their functions accordingly.

This study access the capital adequacy and lending strategy of development banks of Nepal in general and three selected banks for study namely Bhrikutee Development Bank, Siddhartha Development Bank and Paschimanchal Development Bank in particular. The analysis used the financial and statistical tools to compare capital adequacy and lending strategy. Furthermore, the data of five years period reveals the general trend of those aspects and provide cross comparison across studied banks

1.2 Statement of Problem

There is a mushrooming growth of banking institutions in Nepal. Competition in banking systems has long been subject to debates among policymakers and regulators. A large number of bank financial institutions, serving in the small sector will obviously increase the top competition for the survival and the sustainability. The unhealthy competition among various financial institutions may offer to deploy uneconomic rate of interest, including investment in risky sectors enterprises. This situation may endanger the deposits of public. In order to safeguard the public deposits and ensure the economic stability in the country, Nepal Rastra Bank (NRB) issues directives from time to time to commercial and development banks. The directives are issued based on monetary policies and the success of the country

depends on the directives of the central bank and its central role. The directives issued by the NRB should mandatorily followed by these banks which might affect the performances of the banks and the banks are required to follow the directives. In due course, NRB has issued sixteen (16) directives related to the banking supervision and regulations.

NRB directives are the only tools to supervise, monitor and control the activities of the financial institution and they play an important role for the development of banks in Nepal. The directives issued by NRB to the development banks from time to time maintain stability in the financial market. In the beginning, due to lack of proper regulations Nepalese Development Banks (DBs) could not recognize the importance of the quality credit and banking sector failed to witness the expected developments. Subsequently, the banking sector faced the problems of bad debts, overdue loans, accrued interest, accumulations of non-banking assets and excess liquidity in the banking system. Viewing the need of structural reform amidst these adverse implications, NRB has issued suitable directives to run DBs in a healthy competitive manner to ensure the sustainable developments of the overall banking system.

As the banking sector is highly affected by various negative factors of the economy, this sector is facing numerous problems as stated above. By the year 2070 B. S. all development banks are required to have capital base of one hundred million. It is felt that some development banks will have difficulty to fulfil these requirements. As per one of the current directions issued by NRB, development banks are required to arrange for loan loss provision as per the classification of loans advances. Although the NRB directives have a provision of the examining capital adequacy of development banks, there is no study that has examined the overall trend of the capital adequacy of the development Banks. Therefore this study not only tried to calculate the capital adequacy but also their trend over a period of time and examines whether the studied banks have met the provision of the NRB directive and are in financially in healthy condition. Furthermore, this study examines the lending strategy of the selected bank. This study basically deals with the following issues of development bank:

- IS capital of selected DBS are in adequate position according to NRB directive?
- What is the trend of capital adequacy of selected DBs (for 2064/65 to 2068/69)?
- What is the lending strategy of selected DBs?

1.3 Objectives of the Study

The main objectives of this study is to access capital adequacy and lending strategy of development bank in Nepal with reference to Bhrikutee Development Bank (BDB), Siddhartha Development Bank (SDB) and Paschimanchal Development Bank (PDB). Beside this, specific objectives of this study are as follows:

- To identify the capital adequacy of selected DBs.
- To explore the trends of capital adequacy of selected DBs (for 2064/65 to 2068/69).
- To explore the lending strategy of selected DBs.

1.4 Significance of the Study

Adequate level of capital and sound lending strategy plays vital role in a bank for their sustain existence. The study will suggest to management for how is their capital level and make aware to shareholder about the banks investment. Though, this is only study but it gives feedback to policy makers, will useful them who formulate the policy for regulation. All stakeholders can identify which bank is the best and to whom have to invest.

1.5 Limitations of the Study

Every small or big work cannot be completed without limitation. This study has attempted for clear and true present and analysis within boundary. The limitation of the study is as follows:

There are many banks and financial institutions in Nepal, the study only concern with development bank.

- The study covers the last 5 fiscal years data for research purpose.

- This study is concern only with the directives issued by NRB for the banking and financial institutions.
- In this study only selected tools and technique are used they are ratios, mean standard deviation, coefficient of variation, correlation coefficient and variance.
- This study has been done for partial fulfilments of Master Degree in business studies program of Tribhuvan University.

1.6 Organization of the thesis

The research has been divided into five chapters. The first chapter deals with background of study, statement of problem, objective of the study, limitations of the study and organization of the study. The second chapter presents pilot studies and textual concepts with regard to conceptual framework on Capital, loan along with the review of major books, journal, research work etc. The third chapter includes research design, population & sample, sources and types of data, data processing technique and method & tools of data analysis. The fourth chapter deals with the presentation and analysis of data. It analyses the data and interprets the results using different financial and statistical tools, table, chart and graphs. The last chapter of the study summarizes the result of analysis and suggestive framework. Besides these, bibliography and annexure are presented at the end of the thesis. Similarly acknowledgements, table of contents, list of tables, list of figures, abbreviations are included in the front part of the thesis report.

CHAPTER-2
REVIEW OF LITERATURE

This chapter focuses on the review of literature, research studies and other pertinent prepositions in the related field study, textbooks and reference books relevant to the capital and investment of banks in Nepal particularly different journals, Article, Annual reports and some research paper related with this topic. This chapter includes

Conceptual Review

Review of Related studies

2.1. Conceptual Review

Conceptual Review provides the fundamental theoretical frame work and foundation to the present study. Hence books, research paper etc. dealing with theoretical aspects of capital, loan, and investment are taken into consideration.

2.1.1 Concept of Capital

Banks generate income by investing in a business or a different income property. The net worth of a business that is, the amount by which its assets exceed its liabilities. The money, property & other valuables which collectively represent the wealth of an individual or business (www.investorwords.com).

In classical and neoclassical economics, capital is one of the factors of production. The others are land, labour and, according to some proponents, organization, entrepreneurship, or management. Goods with the following features are capital:

- It can be used in the production of other goods (this is what makes it a factor of production).
- It was produced, in contrast to "land", which refers to naturally occurring resources such as geographical locations and minerals.
- It is not used up immediately in the process of production unlike raw materials or intermediate goods. (The significant exception to this is depreciation allowance, which like intermediate goods, is treated as a business expense.)

These distinctions of convenience have carried over to contemporary economic theory. There was the further clarification that capital is a stock. As such, its value can

be estimated at a point in time. By contrast, investment, as production to be added to the capital stock, is described as taking place over time ("per year"), thus fallow.
Earlier illustrations often described capital as physical items, such as tools, buildings, and vehicles that are used in the production process. Since at least the 1960s, economists have increasingly focused on broader forms of capital. For example, investment in skills and education can be view as building up human capital or knowledge capital, and investments in intellectual property can be view as building up intellectual capital. These terms lead to certain questions and controversies discussed in those articles (Bexley, 1997)

Financial capital, which represents obligations, and is liquidated as money for trade, and owned by legal entities It is in the form of capital assets, traded in financial markets. Its market value is not based on the historical accumulation of money invested but on the perception by the market of its expected revenues and of the risk entailed.

Capital is termed in different ways by different scholars and professionals. Economics speak of as wealth, businesspersons speak of it as total assets whereas the accountant as net assets or stockholders interest as shown by the balance sheet or the net worth of the shareholders equity. Similarly, a lawyer calls it capital stock. Whatever may be the term used, capital is the fund raised to finance different assets, short-term or long-term. Therefore, capital is a mix of long-term as well as short-term funds (Bhattarai, 2008).

2.1.2 Capital Requirement

Leverage ratio can be used to measure the capital adequacy of a bank. This is the ratio of bank's book value of core capital to the book value of its assets. The higher ratio shows the higher level of capital adequacy. The U.S.A. Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 has fixed the five target zones: i. 5 percent and above ii. 4 percent and above iii. Under 4 percent, iv. Under 3 percent, v. 2 percent and less, of leverage ratio. The leverage ratio falling in the first zone implies that bank is well capitalized. Similarly, the leverage falling in the second zone shows that bank is adequately capitalized. The leverage falling in the last three zones

indicates that bank is inadequately capitalized and regulators should take prompt corrective action to bring the capital to the desirable level (Saunders and Cornett 2004).

In the United States, depository institutions are subject to risk-based capital guidelines issued by the Board of Governors of the Federal Reserve System (FRB). These guidelines are used to evaluate capital adequacy based primarily on the perceived credit risk associated with balance sheet assets, as well as certain off-balance sheet exposures such as unfunded loan commitments, letters of credit, and derivatives and foreign exchange contracts. The risk-based capital guidelines are supplemented by a leverage ratio requirement. To be adequately capitalizing under federal bank regulatory agency definitions, a bank holding company must have a Tier 1 capital ratio of at least 4%. A combined Tier 1 and Tier 2 capital ratio of at least 8%, and a leverage ratio of at least 4%, and not be subject to a directive, order, or written agreement to meet and maintain specific capital levels. To be well capitalizing under federal bank regulatory agency definitions, a bank holding company must have a Tier 1 capital ratio of at least 6%. a combined Tier 1 and Tier 2 capital ratio of at least 10%, and a leverage ratio of at least 5%, and not be subject to a directive, order, or written agreement to meet and maintain specific capital levels. These capital ratios are reporting quarterly on the Call Report or Thrift Financial Report. Although Tier 1 capital has traditionally been emphasize, in the Late-2000s recession regulators and investors began to focus on tangible common equity, which is different from Tier 1 capital in that it excludes preferred equity (Scott, 2005).

The Basel Accords, published by the Basel Committee on Banking Supervision housed at the Bank for International Settlements, sets a framework on how banks and depository institutions must calculate their capital. In 1988, the Committee decided to introduce a capital measurement system commonly referred to as Basel I. This framework has been replaced by a significantly more complex capital adequacy framework commonly known as Basel II. After 2012 it will be replaced by Basel III. Another term commonly used in the context of the frameworks is Economic Capital, which can be thought of as the capital level bank shareholders would choose in absence of capital regulation (Kong,M. 2007).

The capital ratio is the percentage of a bank's capital to its risk-weighted assets. Weights are defined by risk-sensitivity ratios whose calculation is dictated under the relevant Accord. Basel II requires that the total capital ratio must be no lower than 8%. Each national regulator normally has a very slightly different way of calculating bank capital, designed to meet the common requirements within their individual national legal framework.

Most developed countries implement Basel I and II, stipulate lending limits as a multiple of a bank's capital eroded by the yearly inflation rate. The five Cs of Credit - Character, Cash Flow collateral, Conditions and Capital- have been replaced by one single criterion. While the international standards of bank capital were laid down in the 1988 Basel I accord, Basel II makes significant alterations to the interpretation, if not the calculation, of the capital requirement. Examples of national regulators implementing Basel II include the FSA in the UK, BaFin in Germany, OSFI in Canada, Banca d'Italia in Italy (Kong, M.,2007).

Capital requirement refers to the standardized requirements in place for banks and other depository institutions, which determines how much capital is required to be held for a certain level of assets through regulatory agencies such as the Bank for International Settlements, Federal Deposit Insurance Corporation or Federal Reserve Board. These requirements are put into place to ensure that these institutions are not participating or holding investments that increase the risk of default and that they have enough capital to sustain operating losses while still honouring withdrawals. Also known as "regulatory capital"(Investopedia: Capital Requirement, 2009).
Capital requirement is also known as regulatory capital, in the Basel II accord bank, capital has been dividing into two "tiers" each with some subdivisions.

2.1.3 Tier 1 Capital & Its Elements

Tier 1 capital is used to describe the capital adequacy of a bank. Tier I capital is core capital, this includes equity capital and disclosed reserves (Investopedia: tier 1 capital, 2009).

Tier 1 capital, the more important of the two, consists largely of shareholders' equity and disclosed reserves. This is the amount paid up to originally purchase the stock (or shares) of the Bank (not the amount those shares are currently trading for on the stock exchange), retained profits subtracting accumulated losses, and other qualifiable. In simple terms, if the original stockholders contributed $100 to buy their stock and the Bank has made $10 in retained earnings each year since, paid out no dividends, had no other forms of capital and made no losses, after 10 years the Bank's tier one capital would be $200. Shareholders equity and retained earnings are now commonly referring to as "Core" Tier 1 capital, whereas Tier 1 is core Tier 1 together with other qualifying Tier 1 capital securities (Wikipedia, Tier 1 Capital, 2009).

Elements of tier 1 capital are as follows:

- Paid up Equity Capital.
- Irredeemable non-cumulative preference shares which are fully paid-up and with the capacity to absorb unexpected losses. These instruments should not contain any clauses whatsoever, which permit redemption by the holder or issuer upon fulfilment of certain condition. Banks should obtain prior approval of NRB for this kind of instruments to qualify as a component of core capital.
- Share Premium
- Proposed bonus equity share.
- Statutory general reserve.
- Retained earnings available for distribution to shareholders.
- Un-audited current year cumulative profit, after all provisions including staff bonus and taxes. Where such provisions are not made, this amount shall not qualify as Tier 1 capital.
- Capital redemption reserves created in lieu of redeemable instruments.
- Capital adjustment reserves created in respect of increasing the capital base of the bank.
- Dividend equalization reserves.

Any other type of reserves notified by NRB from time to time for inclusion in Tier 1 capital (Capital Adequacy Framework, 2012).

Banks shall be required to deduct the following from the Tier 1 capital for capital adequacy purposes. The claims that have been deducted from core capital shall be exempt from risk weights for the measurement of credit risk.

Book value of goodwill.

Miscellaneous expenditure to the extent not written off. e.g. VRS expense, preliminary expense, share issue expense, deferred revenue expenditure, etc. However, software expenditure or software development expenditure, research and development expenditure, patents, copyrights, trademarks and lease hold developments booked as deferred revenue expenditure are subject to 100% risk weight and may not be deducted from Tier 1 capital.

- Investment in equity of financial institutions licensed by NRB.
- All Investments in equity of institutions with financial interest.
- Investments in equity of institutions in excess of the prescribed limits.
- Investments arising out of underwriting commitments that have not been disposed within a year from the date of commitment.
- Reciprocal crossholdings of bank capital artificially designed to inflate the capital position of the bank.

Any other items as stipulated by NRB, from time to time. (Capital Adequacy Framework, 2012).

2.1.4 Tier 2(Supplementary) Capital

Tier 2 capitals is supplementary bank capital that includes items such as revaluation reserves, undisclosed reserves, hybrid instruments and subordinated term debt. A bank's reserve requirements include its Tier 2 capital in its calculation, but it is considered less reliable than its Tier 1 capital. In the United States, the capital requirement for banks is, in part, based on the weighted risk associated with the bank's assets (Investopedia, Tier2 capital).

a. Undisclosed Reserves

Undisclosed reserves are not common, but are accept by some regulators where a Bank has made a profit but this has not appeared in normal retained profits or in general reserves. Most of the regulators do not allow this type of reserve because it does not reflect a true and fair picture of the results.

b. Revaluation Reserves

A revaluation reserve is a reserve created when a company has an asset revalue and an increase in value is brought to account. A simple example may be where a bank owns the land and building of its headquarters and bought them for RS100 a century ago. A current revaluation is very likely to show a large increase in value. The increase would be added to a revaluation reserve.

c. General Provisions

A general provision is creating when a company is aware that a loss may have occurred but is not certain of the exact nature of that loss. Under pre-IFRS accounting standards, general provisions were commonly create to provide for losses that were expects in the future. As these did not represent incurred losses, regulators tended to allow them to be count as capital.

d. Hybrid Debt Capital Instruments

They consist of instruments, which combine certain characteristics of equity as well as debt. They can be included in supplementary capital if they are able to support losses on an on-going basis without triggering liquidation. Sometimes, it includes instruments, which are initially issued with interest obligation (e.g. Debentures), but the same can later be converted into capital.

e. Subordinated-Term Debt

Subordinated debt is class as Lower Tier 2 debt, usually has a maturity of a minimum of 10 years and ranks senior to Tier 1 debt, but subordinate to senior debt. To ensure that the amount of capital outstanding does not fall sharply once a lower Tier 2 issue matures. In addition, for example, not be replaced, the regulator demands that the amount that is qualifiable as Tier 2 capital amortizes (i.e. reduces) on a straight-line basis from maturity minus 5 years (e.g. a 1bn issue would only count as worth 800m in capital 4years before maturity). The remainder qualifies as senior issuance. For this reason many Lower Tier 2 instruments were issued as 10yr non-call 5 year issues (i.e. final maturity after 10yrs but callable after 5yrs). If not called, issue has a large step - similar to Tier 1 - thereby making the call more likely.

2.1.5 Capital Adequacy Ratio (CAR)

Unless a higher minimum ratio has been set by NRB for an individual bank through a review process, every development bank shall maintain at all times, the capital requirement set out below:

- A Tier 1 (core) capital of not less than 5.5 percent of total risk weighted exposure.
- A total capital fund of not less than 11 percent of its total risk weighted exposure.

The Capital Adequacy Ratio (CAR) is calculated by dividing eligible regulatory capital by total risk weighted exposure. The total risk weighted exposure shall comprise of risk weights calculated in respect of bank's credit, operational and market risks. The methodologies to calculate RWE for each of these risk categories are described in detail in subsequent chapters (Capital Adequacy Framework, 2012).

Capital adequacy ratio is also call Capital to Risk (Weighted) Assets Ratio (CRAR).is a ratio of a bank's capital to its risk. National regulators track a bank's CAR to ensure that it can absorb a reasonable amount of loss and complies with statutory Capital requirements (Gallati, 2003).

Capital adequacy ratios (CAR) are a measure of the amount of a bank's core capital expressed as a percentage of its risk-weighted asset.

Capital adequacy ratio is defined as;

$$\text{CAR} = \frac{Tier\ 1\ Capital + Tier\ 2\ Capital}{Risk\ Weight\ Assets}$$

TIER 1 CAPITAL = (paid up capital + statutory reserves + disclosed free reserves) - (equity investments in subsidiary + intangible assets + current & b/f losses)

TIER 2 CAPITAL = Undisclosed Reserves + General Loss reserves + Hybrid Debt Capital Instruments + Subordinated Debts

Where,

Risk can either be weighted assets (a) or the respective national regulator's minimum total capital requirement. If using risk weighted assets,

$$\text{CAR} = \frac{T_1 + T_2}{a} \geq 10$$

The percent threshold varies from bank to bank (10% in this case, a common requirement for regulators conforming to the Basel Accords) is set by the national banking regulator of different countries. Two types of capital are measured: tier one capital (T_1), which can absorb losses without a bank being required to cease trading, and tier two capital (T_2 , above), which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors (Gallati, 2003).

2.1.6 Use of Capital Adequacy Ratio (CAR)

Capital adequacy ratio is the ratio, which determines the bank's capacity to meet the time liabilities and other risks such as credit risk, operational risk, etc. In the simplest formulation, a bank's capital is the "cushion" for potential losses, and protects the bank's depositors and other lenders. Banking regulators in most countries define and monitor CAR to protect depositors, thereby maintaining confidence in the banking system (Karacadag & Taylor, 2000).

CAR is similar to leverage in the most basic formulation, it is comparable to the inverse of debt-to-equity leverage formulations (although CAR uses equity over assets instead of debt-to-equity; since assets are by definition equal to debt plus equity, a transformation is required). Unlike traditional leverage, however, CAR recognizes that assets can have different levels of risk (Karacadag & Taylor 2000).

2.1.7 Risk Weighting

Since different types of assets have different risk profiles, CAR primarily adjusts for assets that are less risky by allowing banks to "discount" lower-risk assets. The specifics of CAR calculation vary from country to country, but general approaches tend to be similar for countries that apply the Basel Accords. In the most basic application, government debt is allowing a 0% "risk weighting" - that is, they are subtracting from total assets for purposes of calculating the CAR (Gallati, 2003).

2.1.7.1 Risk weighted Assets - Fund Based

Risk weighted assets mean fund based assets such as cash, loans, investments and other assets. Degrees of credit risk expressed as percentage weights have been assign by RBI to each such assets (Gallati, 2003).

2.1.7.2 Non-Funded (Off-Balance Sheet) Items

The credit risk exposure attached to off-balance sheet items has to be first calculating by multiplying the face amount of each of the off-balance sheet items by the Credit Conversion Factor. This will then have to be again multiplying by the relevant weight age.

Local regulations establish that cash and government bonds have a 0% risk weighting, and residential mortgage loans have a 50% risk weighting. All other types of assets (loans to customers) have a 100% risk weighting (Eubanks,)

For Example, Bank "A" has assets totalling 100 units, consisting of;

Cash: 10 units

Government bonds: 15 units

Mortgage loans: 20 units

Other loans: 50 units

Other assets: 5 units

Bank "A" has debt of 95 units, all of which are deposits. By definition, equity is equal to assets minus debt, or 5 units.

Bank A's risk-weighted assets are calculated as follows

Cash	10 × 0% = 0
Government securities	11 × 0% = 0
Mortgage loans	20 × 50% = 10
Other loans	50 × 100% = 50
Other assets	5 × 100% = 5
Total Risk Weighted assets	65
Equity	5
CAR (Equity/RWA)	7.69%

Even though Bank "A" would appear to have a debt-to-equity ratio of 95:5, or equity-to-assets of only 5%, its CAR is substantially higher. It is considered less risky because some of its assets are less risky than others (Eubanks, 2006).

2.1.8 Lending (Investment)

Investment can be defined as sacrifice of present consumption with expectation of return in future. Investment takes place at present but return can be expected in future and in uncertain too. Uncertainty is measured by risk that why there is always involvement of risk in investment.

Investment is made in assets. Assets in all are of two types real assets (land, building, factures etc.) and financial assets (stock, bond, t-bIn etc.). These two investments are not competitive but complementary. Highly developed institutions for financial greatly facilitate real investment (Bhattarai, R. 2004).

Investment is nothing but deploying our saving in manner that ensures safety of our money & provides a sustained return to supplement our regular income (Delhi Stock exchange 2002). The term investment covers a possible where there are a devour saving. If all the income & saving are consumed to solve the problems of hand to month and to other basis needs then there is no existence of in investment are interrelated.

Features of sound investment policy

The development banks are inspired with the goal of earning profit. There are many reasons after the goals of gaining profit. In order to reach their desired goals, they profit must invest the resources. It is not better to keep the available resources idle. The bank should be able to clear the policy of its investment by making a deep study on the subjects that which sector would be the trust worthier & dependable to invest the funds collected in the bank, they should have the ability to use the policy of banking investment in its goal. The income and profit of the bank depends upon its investment policy & term Landry procedure of its funds in different securities. The greater the credit created by the bank the Higher will be the profitability. A sound bending & investment policy is not only prerequisite for the bank's profitability but also crucially significant for the promotion of commercial saving of a backward country like Nepal. Therefore, the following principles or features of investment policy must be abided by the development banks in order to achieve the goals.

A. Safety and Security

Development banks must pay a special attention to the principle safety and security. There will be a loss whether it is small or big, if the bank has not invested in secure and safe sectors, Investment in unsafe and insecure sectors with the hope of getting more return is to accept the security of law quality. The condition of unsafe arise when a bank invest in large loan against less securities by receiving commission, invests in new places without careful observation, landing to long-term borrowers etc. All these unsafe conditions should be avoided as much as possible. A bank should be very much conscious in investing procedures and profitable sectors. It should never invest its fund on those securities, which are subjected to too much for volatility (Depreciation are fluctuation) because a little alternation may cause a great loss. It must not invest its fund into speculative businessman, who may be bankrupt at once and who may earn millions in minute also. Only Commercial durable, marketable and high market valued securities should be accepted. For This purpose "MAST" should be followed, where MAST stands for:

M - Marketable

A - Ascertainable

S - Stability

T - Transferability

B. Profitability

The profit of development bank mainly depends on the interest rate, volume of loan and its time period and nature of investment in different securities. It is a fact that a development bank can maximize its volume of wealth through maximization of return on their investment and lending so, they must invest their funds where they gain maximum profit. Ambition of profit to development bank seem reasonable as the bank has to cover all the expenses and make payment in the forms dividend to the shareholder who contribute to build up to bank's capital and interest to the depositors. Safety from the problem of liquidity, i.e. keeping cash reserve to meet day to day requirements of the depositors.

C. Liquidity

It is the position of the bank to meet current or short-term obligations. General public or customers deposit their saving at the banks in different accounts having full confidence of repayment by the banks whenever they require. To show a good current position and maintain the confidence of the customers, every bank must keep proper cash balance with then while investing in difference securities and granting loan from excess fund.

D. Purpose of Loan

Very important question for any banker is that, why a customer is in need for loan. If borrower misused the loan granted by the bank, he can never repay. Therefore, in order to avoid This situation each and every bank should demand all the essential detailed information about the scheme of the project or activities would be examined before lending.

E. Diversification

Bank should be always careful not to grant loan in only one sector. To minimize risk, a bank must diversify its investment on different sectors. Diversification of loan helps to sustain loss according to the low of average, if a security of a company is divided of there may be an appreciation in the securities of other companies. In This way, the loss can be recovered.

F. Tangibility

A development bank should proper tangible security to an intangible one. Thought it may be considered that tangible property does not yield an income apart from intangible securities, which have lost their value due to price level inflation.

G. Legality

A development bank must follow the rules and regulation as well as different directions issued by NRB, Ministry of Finance, Ministry of law and other while mobilizing its funds.

2.1.9 Types of Loan

2.1.9.1 Overdraft/Cash Credit

In this type of facility, a credit limit is given to the borrower. A credit limit is the maximum amount of credit that a bank will extend to a borrower. This limit is based on a variety of factors ranging from an individual's ability to make interest payments, an organization's cash flow and/or ability to repay the principal, need of the borrower to the credit standards employed by the lender. A credit limit is also based on the borrower's recoverable assets in the event of default. There is no restriction on deposit and withdrawal of funds up to the credit limit and interest is charged only on the amount utilized. Interest is recovered on quarterly basis. Such line of credit is extended initially for a year but renewable for further period. This type of facility is generally extended to businesses for meeting their working capital need (Van Horne, 1998).

2.1.9.2 Demand Loan

This type of facility has no specific maturity date, but payable at any time. But for convenience in practice it is generally extended for period ranging from 3 months to 3 years. Only interest is paid until the principal is paid off, or until the lender demands repayment of principal. The borrower may, however, pay off the loan early, without incurring a prepayment penalty.

2.1.9.3 Trust Receipt Loans

These types of loans are generally extended against import documents like bills and letter of credit. When any borrower import some merchandise via Letter of Credit, then these documents are retired by booking the Trust Receipt Loans. As these types of facilities can be closely monitored they bear lower interest rate than Cash Credit/Overdraft accounts as they are considered comparatively safe. These types of loans are extended for maximum 90 days, as directed by NRB (NRB Directives, 2012).

2.1.9.4 Term Loans

These are the types of loans that have maturity period more than one year. These types of loans are generally extended for acquisition of fixed assets like Plant &

Machinery, Land & Building and Vehicles etc. The loan is repayable in fixed instalments and repaid amount can't be withdrawn again. The non-payment of instalment is considered serious. These types of loans are repaid from the Cash Accruals of the business but not from the Sales Revenue (Bhandari, 2004).

2.1.9.5 Retail /consumer loan

a. Hire Purchase Loan

The Bank extends Hire Purchase Loan for purchase of new vehicles, (including body making in case of commercial vehicles) to individuals as well as companies. The bank also finances equipment such as medical equipment, construction equipment, manufacturing machinery equipments under Hire Purchase Financing (Bhandari, 2004).

b. Housing Loan

Housing Loan is available to purchase readymade / under construction building (including land cost), construct a building on an already owned land, for purchase of adjacent land or extension of existing building.

c. Credit Card Loan

The bank extends credit to individuals through credit cards that could be payable on monthly instalment basis (credit card), fixed tenure basis (capital asset financing), etc.

d. Loan against Fixed Deposit Receipt

The Bank extends Loan against the Fixed Deposit Receipt issued by the Bank itself or by other Banks (in Nepal). Generally, up to 90% of the FDR value can be disbursed as Loan.

e. Loan Against Government Bonds & Bonds of Bank

The Bank extends loans against various Bonds / Stocks/ Promissory notes issued by the Government/ NRB. Under this, up to 90% of the value of such Bonds can be disbursed as Loan. Similarly, the bank can extend loans against bonds issued by commercial banks.

f. Loan Against First Class Bank Guarantees

The Bank extends various credit facilities, funded as well as non-funded, against unconditional guarantees issued by First Class International Banks.

g. Loan Against Shares

The Bank also advances loan against listed shares of Public Ltd. companies.

2.1.10 NRB Provisions Relating to Single Obligor and Limitation of the Sectoral Credit And Facilities

Licensed Institution may extend to a single borrower or group of related borrowers the amount of fund-based loans and advances up to 25 percent of its Core capital fund and non fund-based off-balance sheet facilities like letters of credit, guarantees, acceptances, commitments up to 50 percent of its Core capital fund. The existing single obligor limit has been fixed as gross the limit not exceeding 25 percent of the core capital inclusive of the fund-based and non-fund base limit.

Having regard to aspects including production, employment, the single borrower limit of the loans to be provided to export sector, small and medium industries, pharmaceutical industries, agricultural sector, tourism, cement industries, iron industries and other production-oriented industries has been fixed at 30 percent in the maximum.

Fixation of limit on credit and facilities to single borrower shall be made on the basis of Core capital fund according to the latest quarterly balance sheet certified by the Internal Auditor of concerned institution. Since the fund-based loan and non-fund based facilities are separate, thus, the single borrower limit shall not be calculated by aggregating the both.

While investing in a hydropower project, transmission line and cable car projects, the following provisions shall be made:-

a) The licensed institutions may advance to the projects relating to hydropower project the fund-based loan and non fund-based facilities not exceeding an amount of 50 percent of its core capital.

Provided that in the event of advancing more than 25 percent of the core capital, there shall have to be concluded power purchase agreement with the concerned Organization.

This clause shall not be deemed to have hindered to invest up to 25 percent of the core capital subject to the prevailing provisions.

b) The repayment schedule of such projects shall be prepared based on the cash flow and other evidences.

c) Project shall be analysed and loan shall be repaid from the moratorium period specified by the concerned bank and financial institution or the time of generation of electricity from such project, whichever is earlier. In case any instalment of the loan is due, a provision of 1 percent has to be made for a period of 90 days as the pass loan and if the loan instalment is overdue by more than 90 days, such loan shall be classified as the loss loan and a provision of cent percent shall be made.

d) In case the amount invested by bank and financial institution in shares of a public company limited established for operating a project has been invested in such projects not listed in the stock exchange market and in case such shares and debenture are not listed in even within three years from the date of such investment, entire amount equal to the amount of investment has to be deposited having established an investment equalization fund. The amount deposited in such a fund shall not be allowed to be utilized for any other purpose until the said shares and debentures are listed.

e) While financing only in a pure hydro electricity project, transmission line and cable car construction by a licensed bank or financial institution, the existing single borrower limit of 25 percent has been increased and the financing limit of up to 50 percent of the core capital has been maintained including the fund-based loan and non-fund-based facilities. Provided that in case the customer relating to hydro electricity project, transmission line and cable car projects also wants to finance in non-hydro electricity project /transmission lines/cable car projects, loan/facility up to 25percent including fund-based loan non-fund based facilities may be extended not exceeding the limit of 50 percent.

The amount of loan to be extended against the security of housing land and real estate shall not be more than 60 percent of the fair market value of the housing land and real

estate under collateral security. Investment on real estate and residential housing should be not more than 25% of total loan and loan on other real estate (platting and purchase of land) should be not exceeding 10% of total loan.

2.2 Review of Books & Articles

In the view of Dahal & Dahal "Banks offers credit facilities to the borrower, it is always subject to the term and conditions stipulated in the conditions which can be lenient or stringent depending upon the bargaining capacity of the bank and the borrower, but no way detrimental to the interest of the bank".(Dahal & Dahal,2002,140)

Sherjung Khadka and Hridyabir Singh express their opinion as "In bank, lending is the most risky business among all. There is no risk in collection of deposit but only small careless or mistake in the loan portfolio and procedure can shock the bank profitability and survival, when bank is unable to recover the loan with interest. Therefore, there should be well managed regulations lending aspect of bank. Such regulation should be strictly followed while evaluating the loan proposal and providing loans"(Khadka and Singh,2004,196).

Shrestha (2006) in attempt to evaluate "Lending Operation of Commercial Banks of Nepal and its Impact on GDP" conduct that has made an analysis of contribution of commercial banks, lending to the Gross Domestic Product (GDP) of Nepal. She has set hypothesis that there has been positive impact of lending of commercial banks to the GDP, in research methodology; she has considered GDP as the dependent variable and various sector of lending like agriculture, industrial, commercial service and general social sectors as independent variables. A multiple regression techniques have been applied to analyze the contribution.

The analysis shows that the entire variable except service sector lending has positive impact on GDP. Thus, in the conclusion she had accepted the hypothesis i.e. there has been positive impact on GDP and also she has accepted the hypothesis i.e. there has been positive impact by the lending of Commercial Banks in various investment.

Frank K. Reilly "Investment analysis management & portfolio management" has defined the term investment, "Investment is the current commitment of funds for a period of time to obtain a future flow of funds that will compensate the investment unit for the time the funds are committed for the expected rate of inflation & also for the uncertainly involved in the future flow of fund" (Reilly, F.K.1986).

2.3 Review of Previous Research Works

Pandit (2008) has conducted a research entitled "Directives of NRB in maintaining capital adequacy Ratio & its impact, a case study of NIC Bank" his major objectives were as follows.

- To find out the effect of the Supplementary Capital in The Capital Fund.
- To access the level of capital Adequacy Ratio prescribed by NRB.
- To analyse the trend of total capital to deposit ratio.

The major findings of his study were as follows.

Capital Fund has grown consistently during 2059/60 to 2064/65 due to the substantial increment in the supplementary capital, and issuance of Unsecured subordinated Term Debt.

Bank is quite successful in maintaining capital adequacy as prescribed by NRB

Capital to deposit ratio is adequate and satisfactory. The credit deposit ratio of the Bank is very low and needs to be improved

Although the capital adequacy requirement has been met, the Bank is unable to fulfil other capital and deposit ratios, which are important to safeguard the depositors.

Udas(2010)has conducted a research entitled "Capital Adequacy and its significance to commercial banks(A study of SCBNL,EBL,HBL,NICBL,LBLand KBL)"

Her major objectives:

- To find the level of capital adequacy ratio as prescribes by NRB.
- The impact of supplementary capital on total capital.
- The effect of directives regarding capital adequacy on profitability of the banks.

Her major findings:

- SCBNL, NABIL, EBL and NICBL are up to the mark of capital adequacy in capital adequacy ratio
- Banks are following directives but in case of supplementary capital there has been a shortfall, which can be compensated by the excess amount of core capital in supplementary capital
- The directives of NRB have adverse effect in profitability of the banks but this decreasing profit will affect the banks only for short term.

Shrestha (2010) in her study "A comparative study on investment policy of joint venture banks" has studied primarily of four commercial banks i.e. Himalayan Bank Ltd., Nepal SBI Bank Ltd., and Everest Bank Ltd. & Bank of Kathmandu Ltd. The main objectives of her studies are as follows:

- To compare, analysis & evaluate the investment policy of these four commercial banks.
- To evaluate, liquidity, activity & portfolio ratios of these banks.
- To find out the deposit collection & the effectiveness of fund mobilization.

The Conclusion of the research study is as follows:
HBL is more successful in mobilizing the fund in proper way in comparison to other three commercial banks.
All these banks should have to increase the deposit collection, investment in securities shares & debentures.
All banks should be in rural areas & have to take effectives marketing strategy for their promotion.
New technologies have to be introduced to develop new banking system.

2.4 Research Gap

From the review of various literatures, it has been found many research works have been done on the study of NRB Directives and its compliance and analysis of credit management through loan loss provision, non-performing loans, investment policy and capital adequacy. However, very few these have been found on the capital

adequacy and lending strategy as well it hard to found study related to development bank because most of the study has done upon commercial bank, which is the most important aspect of the banking sector. Therefore, the researcher makes this research study on capital adequacy and lending strategy of development banks.

CHAPTER-3
RESEARCH METHODOLOGY

3.1 Introduction

A systematic study needs to follow a proper methodology to achieve pre determine objective. Research methodology may be defined as a systematic process that is adopted by the researcher in studying problem with certain objective and view. In other word, research methodology describes the methods and process applied in the entire aspect of the study focus of data, data gathering instrument and procedure, data tabulating and processing and methods of analysis. It is really a method of critical thinking by defined and redefining the problems, formulating hypothesis or suggests solution, collecting, organizing, and evaluating data, making deduction and making conclusions. Research methodology is a path from which we can solve research dilemma systematically to accomplish the basic objective of the study. It consists of a brief explanation of research design, nature and sources of data, method of data collection and methods of tools used for analysing data.

3.2 Research Design

To achieve the objective of this study, descriptive research design is used. It is the process, which gives us an appropriate way to reach research goal. It includes definite procedures and techniques, which guide in sufficient way for analysing and evaluating the study. This study is carried out by using both quantitative and qualitative analysis methods. Mostly, secondary data has been used for analysis, but the discussion and personal interview with the concerned employees of the selected bank is also used for qualitative analysis. Hence, research design of this study is based on descriptive and analytical method.

3.3 Population & Sample

The term population of data denotes for the data of each organization which is within the boundary of specific organization whereas sample data are the data of those organization which has been selected from that whole population for study. The

population data for this study comprises all development banks, which are currently operating in Nepal. There are all together 88 development banks operating in Nepal. Some of them have their corporate office located in around Butwal and more than ten development banks branch also operating within and nearby the Butwal city. Out of these three banks are taken for this study. It will be lengthy, time-consuming and vague while taking into consideration of all these institutions. Therefore, the sample consists only three selected banks which were established in Rupandehi district. The sample was selected randomly. The selected sample banks for the analysis are as follows:

1-Siddhartha Development Bank

2-Bhrikutee Development Bank

3-Paschimanchal Development Bank

3.4 Sources of data

The study is mainly based on secondary data. Data are collected from concern bank, NRB, and various libraries. Likewise, the micro-level data have been derived the different libraries, such as Lumbini Banijya Campus, TU central library etc. Furthermore, several data and information were gathered from periodicals, economic journals and the other published and unpublished reports and different websites. Informal interview with the authorities of related institutions are also the other sources of data.

3.5 Method of Data Collection

It indicates the sources of data and how they are collected. In this study, data are collected through published sources. They were collected from the correspondent offices and their respective websites. The annual reports of sample banks for the period of five years are obtained from the website of selected banks. The data regarding the profile of sample banks and other related documents were collected from internet websites. Unpublished master's thesis, books, research papers, articles, journals have been collected mainly form Centre Library of Tribhuvan University, library of Lumbini Banijya Campus, library of Shanker Dev Campus NRB directives and NRB Magazines and newspapers are from concerned authorities.

3.6 Data Analysis Tools

A host of analytical tools can be applied to perform capital adequacy & lending strategy of development banks. Following the nature of the study, a set of appropriate tools, particularly financial and statistical may be used for effective and significant analysis to meet the research objective.

3.6.1 Financial Tools

Financial tools are particularly used for the analysis as well as the interpretation of financial data. These tools can be engaged to procure the precise knowledge of a business, which are fruitful for analysing the strength and weakness of the organization and strategies. For proper financial analysis of data, ratio analysis is the best tool. It is very simple analysis tools under which ratios are taken to express the relation between two or more data. Through ratio analysis, we can establish the relationship between the data and research into conclusion. Thus following financial tools are used to achieve the study goal.

3.6.1.1 Capital Adequacy Ratio

This ratio shows the loss absorbing capacity of the banks. There are two types of capital;

Core Capital (Tier I Capital)

Supplementary Capital (Tier II Capital)

Sum of Tier I Capital and Tier II Capital is Total Capital or Capital Fund. Therefore, there are three types of capital adequacy ratio

$$\text{Core Capital} = \frac{\text{Core Capital}}{\text{Total Risk Weighted Assets}} \times 100$$

$$\text{Capital Fund} = \frac{\text{Capital Fund}}{\text{Total Risk Weighted Assets}} \times 100$$

$$\text{Supplementary Capital} = \frac{\text{Supplementry Capital}}{\text{Total Risk Weighted Assets}} \times 100$$

3.6.1.2 NRB Balance to Total Deposit:

NRB has directed all the development banks to deposit certain percentage of total deposit in NRB balance, which is changing time to time as the demand of the time. The ratio is calculated as followed:

NRB balance to total deposit ratio = NRB deposit / total deposit

3.6.1.3 Total Liquid Fund to Total Deposit:

Total liquid fund to total deposit ratio is the indication of the short term obligation capacity of the demand of the depositor money. Higher ratio shows the higher capacity of payment on demand of the money and vice versa. We have,

Total liquid to total deposit = total liquid fund / total deposit

3.6.1.4 Loan & Advances to Total Deposit

This ratio measures the extent to which the banks are successful to mobilize their total deposit on loan and advances. Loan and advances are outside asset which yield profit to the bank. Increment of loan and advances is the main target of all banks. So, higher ratio is better mobilization of the funds.

We have,

Loan and advances to total deposit = loan and advances / total deposit

3.6.1.5 Total Investment to Total Deposit

Development Bank mobilizes its deposits by investing its funds in different securities issued by government and other financial institution. This ratio is calculated to know how the banks are mobilizing their deposit in the investment of the various securities. A high ratio indicates the success in mobilizing the funds in securities.

We have,

Total investment to total deposit = total investment / total deposit

3.6.2 Statistical Tools

Statistical tools are used to analyse the relationship between two or more variables and to find how these variables are related. In this study, following statistical tools are used.

3.6.2.1 Arithmetic Mean or Average

The mean or average value is a single value within the range of the data that is used to represent all the values in the series. Since an average is somewhere within the range of the data, it is also called a measure of central value. It is calculated as follows.

$$\text{Mean } (\overline{X}) = \frac{\sum X}{N}$$

Where,

$\overline{X}$	=	Arithmetic Mean
$\sum X$	=	Sum of values of all items
N	=	Number of items

3.6.2.2 Standard Deviation (S.D)

The standard deviation is the measure that is most often used to describe variability in data distributions. It can be thought of as a rough measure of the average amount by which observations deviate on either side of the mean denoted by Greek letter (read as sigma). Standard deviation is extremely useful for judging the representatives of the mean. Standard deviation is calculated as follows.

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

Where,

$\boldsymbol{\sigma}$	=	Standard deviation
$\sum(X-\bar{x})^2$	=	Sum of squares of the deviations measured from arithmetic average.
N	=	Number of items

3.6.2.3 Coefficient of Variation (C.V)

The standard deviation as stated above is an absolute measure of dispersion. The corresponding relative measure is known as the coefficient of variation. It is used in such problems where we want to compare the variability of two or more than two series. The series for which the coefficient of variation is greater is said to be more variable or conversely less consistent, less stable or less homogeneous and vice versa. In this study coefficient of variation is used to analyse the variance of average key variables. The formula used for determining the coefficient of variation is as follows.

$$\text{C.V} = \frac{\sigma}{\bar{X}}$$

3.6.2.4 Correlation Coefficient

Correlation is a statistical tool design to measure the degree of association between two or more variables. In other word if the changes in one variable affects the changes in other variable, then the variable are said to be co-related when it is used to measure the relationship between two variables, then it is called simple correlation. The coefficient of correlation measures the degree of relationship between two sets of figures. Among the various methods of finding out coefficient of correlation, Karl Pearson's method is applied in the study.

The result of coefficient of correlation is always lying between +1 and -1. The formula for the calculation of coefficient of correlation between X and Y is given below.

$$r = \frac{\sum x_1 x_2}{\sqrt{\sum {x_1}^2 \sum {x_2}^2}}$$

Where,

r	=	Correlation coefficient
$\sum x_1$	=	$X_1 - \overline{X}_1$
$\sum x_2$	=	$X_2 - \overline{X}_2$

The interpretation of calculated value of correlation coefficient by following way:

If r = 0, then there is no correlation between variables.

If r > 0, then there is positive correlation between variables.

If r < 0, then there is negative relation between variables.

If r = +1, then there is perfect positive correlation.

If r = -1, then there is perfect negative correlation.

3.6.2.5 Assessment of the Sample Correlation Coefficient

For this study, t-test for significance of an observed and sample correlation coefficient is used.

Set up Hypothesis

Null hypothesis (H_0); $\rho = 0$ i.e. There is no correlation between total deposit and loan & advance.

Alternative Hypothesis (H_1); $\rho \neq 0$ i.e. There is significant correlation between total deposit and loan & advance.

Test statistic under H_0;

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where,

r	=	Sample correlation between two variables
r^2	=	Sample correlation Coefficient
n	=	No of Pair of observations

Level of significance: Level of significance $\propto$ = 5%

Critical Value: Tabulated or critical value of t at $\propto$ % level of significance for (n-2) degree of freedom obtain from 't' tables.

Decision: If calculated 't' is less than or equal to tabulated value of 't' it falls in the accepted region and the null hypothesis is accepted and if calculated 't' is greater than tabulated 't' null hypothesis is reject.

3.6.2.6 Variance

In statistics, the square root of the standard deviation of a sample or set of data, used procedurally to analyse the factor that may influence the distribution or spread of the data under consideration. Variance is calculated as follow:

Variance= $\boldsymbol{\sigma}2$

CHAPTER- 4
PRESENTATION AND ANALYSIS OF DATA

To find the answer of research problem, the collected data are necessary to present and analyse by processing. This chapter will present the data on table & figure. The main objective of the study is to present data and analyse them with the help of various financial and statistical tools. This chapter consists of analysis and presentation of empirical data. The important variables are very sensitive and taken into consideration, so this chapter will present the analysis of components of Capital Adequacy and lending strategy.

4.1 Analysis of Capital Adequacy

Capital adequacy describes the risk management and risk absorbing capacity of the bank. There must be enough equity capital with the bank to take the risky ventures, this equity capital acts as cushion to absorb loss before it passes on to the deposit holders. These measures also affect the profitability of the banks, which induces banks to invest in less risky ventures.

Banks must maintain capital fund on the basis of amount of assets held and riskiness of the assets held. They must maintain certain percentage of capital fund of the total risk weighted exposure. Risk weight is assigned according to the riskiness of the exposure. For example, risk weight of loan against residential property is lower than risk weight against commercial property. So with the same amount of capital banks can lend lower amount against commercial property higher against residential property.

Nepalese banks have started adopting the norms from 2008/09. In order to ensure a smooth transition to new approach prescribed by this framework, a parallel run for the whole year from Mid July 2007 (Fiscal Year (FY) 2007/08) was conducted. The returns submitted by the banks during this period were minutely reviewed by NRB to identify any anomalies. The identified shortcoming on the returns was advised to the bank management so that they could be rectified before to move onto fully-fledged implementation. Based on the findings of the parallel run, amendments and

modifications have been incorporated in the framework wherever deemed necessary. However, there was no penalty for not meeting norms of Basel II during FY 2007/08.

Table 4. 1: Capital Adequacy Amount As Per BASEL I Norms of BDB

(Amount in Rs 00,000)

Year	Core Capital	Supplementary Capital	Capital Fund	Total Risk Weighted Exposures
2064-65	1025.35	95.67	1121.02	9964.62
2065-66	1375.58	111.86	1487.44	12942.90
2066-67	3095.55	133.85	3229.42	15530.70
2067-68	3688.81	165.13	3853.95	18750.98
2068-69	4278.63	234.79	4513.42	26141.58

Source: Annual report 2064-65 to 2068-69

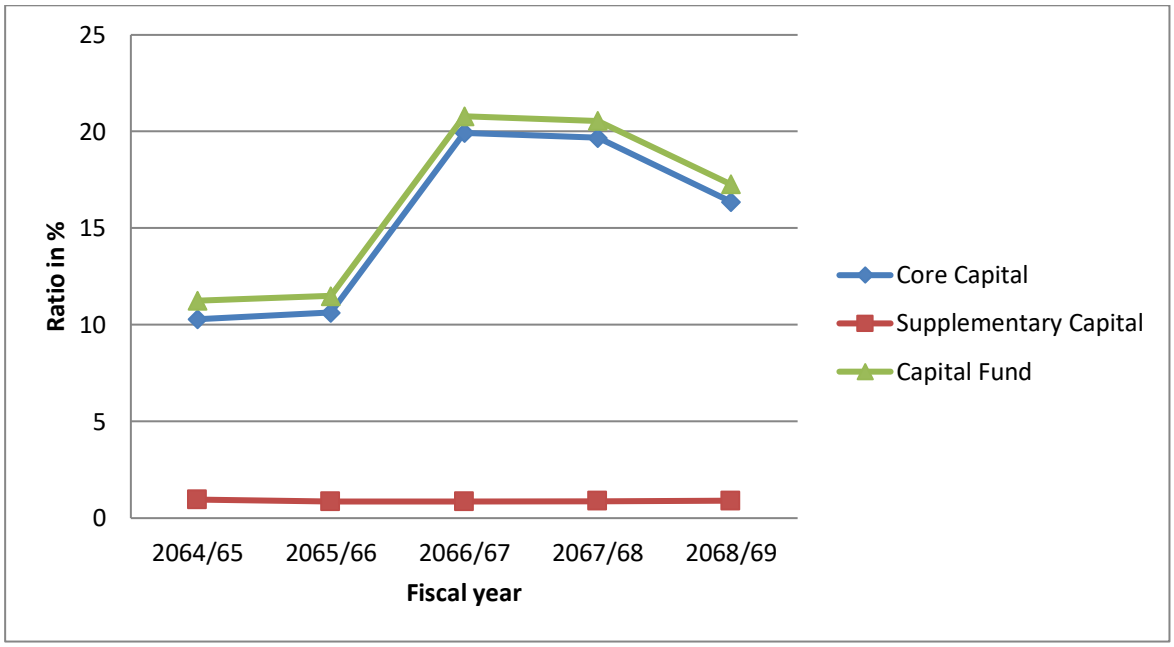
The above table shows that the core capital, total capital fund and total risk weighted assets of BDB are in increasing trend over the study period.

Table 4. 2: Capital Adequacy Ratio of Total Risk Weighted Exposures of BDB

Year	Core Capital	Supplementary Capital	Capital Fund	As per NRB norms	Difference
2064-65	10.29	0.96	11.25	11	0.25
2065-66	10.63	0.86	11.49	11	0.49
2066-67	19.93	0.86	20.79	11	9.79
2067-68	19.67	0.88	20.55	11	9.55
2068-69	16.37	0.90	17.27	11	6.27
Average	15.38	0.89	16.27		5.27
S.D	4.21	0.0014	4.19		4.19
Variance					17.56

Source: Annual report 2064-65 to 206-69

Figure 4. 1: **Trend of Capital Adequacy Ratio of BDB**



Above table 4.2 and figure 4.1 shows the capital adequacy position of BDB as per BASEL I capital adequacy norms. The percentage of core capital, supplementary capital and total capital fund is in fluctuating trend over the study period. As per the norms, core capital should be 5.5% of total risk weighted assets and Capital Fund should be not less than 11% of total risk weighted assets. The above table shows that BDB meet the regulatory requirement of NRB directives'. NRB Directives has declared that 1% buzzer zone for CAR but in this study BDB is holding more capital in idle except in first two year of study period.

Table 4. 3: Capital Adequacy Amount as per BASEL I Norms of SDB

(Amount in Rs 00,000)

Year	Core Capital	Supplementary Capital	Capital Fund	Total Risk Weighted Exposures
2064-65	1325.35	78.47	1403.82	9750.47
2065-66	6623.56	148.44	6772.01	18312.71
2066-67	6715.59	278.81	7003.41	32871.81
2067-68	7347.87	374.83	7722.70	40273.73
2068-69	6642.9	323.25	6966.16	41069.58

Source: Annual report 2064-65 to 2068-69

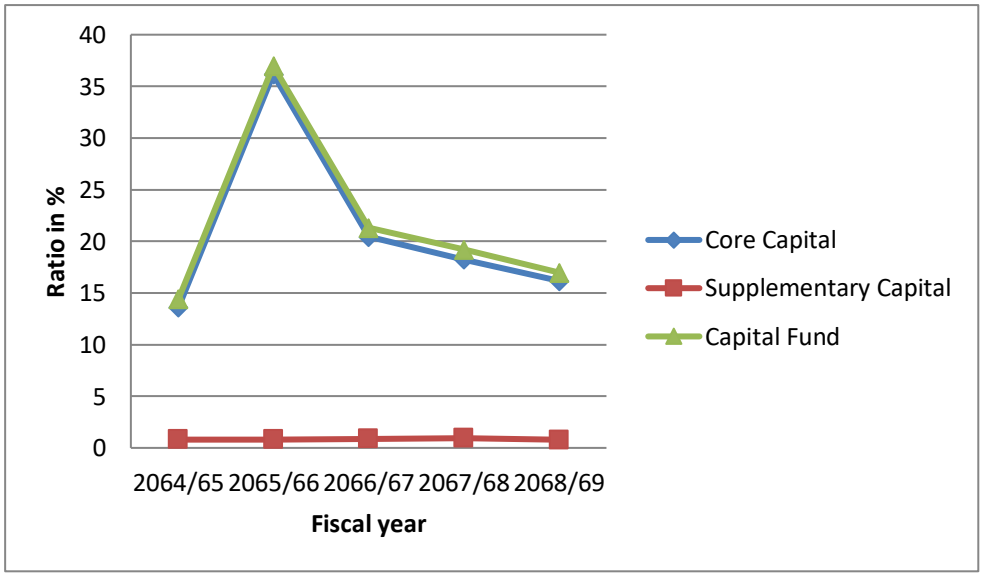
The above table shows that the core capital, supplementary capital, total capital fund and total risk weighted assets of SDB are in increasing trend over four year of study period except fifth year.

Table 4. 4: Capital Adequacy Ratio of Total Risk Weighted Exposures of SDB

Year	Core Capital	Supplementary Capital	Capital Fund	As per NRB norms	Difference
2064-65	13.59	0.81	14.40	11	3.40
2065-66	36.17	0.81	36.98	11	25.98
2066-67	20.43	0.88	21.31	11	10.31
2067-68	18.24	0.94	19.18	11	8.18
2068-69	16.17	0.79	16.96	11	5.96
Average	20.92	0.85	21.77		10.77
S.D	7.95	0.0055	7.94		7.95
Variance					63.14

Source: Annual report 2064-65 to 2068-69

Figure 4. 2: Trend of Capital Adequacy Ratio of SDB



Above table 4.4 and figure 4.2 shows the capital adequacy position of SDB as per BASEL I capital adequacy norms. The percentage of core capital, supplementary capital and total capital fund is in fluctuating trend over the study period, between

fiscal2064/65 and 2065/67 core capital and capital fund both were rapidly increased than it is in decreasing trend. As per the norms, core capital should be 5.5% of total risk weighted assets and Capital Fund should be not less than 11% of total risk weighted assets. The above table shows that SDB meet the regulatory requirement NRB. Variance of SDB is higher which mean CAR is in fluctuating trend over the study period & CAR of the bank is inconsistent.

Table 4. 5: Capital Adequacy Amount as Per BASEL I Norms of PDB

(Amount in RS 00,000)

Year	Core Capital	Supplementary Capital	Capital Fund	Total Risk Weighted Exposures
2064-65	1168.08	77.22	1245.31	8638.29
2065-66	1366.82	102.85	1469.67	11358.09
2066-67	3417.51	120.24	3537.75	13457.60
2067-68	3597.84	156.85	3754.70	15087.70
2068-69	3679.29	198.69	3877.98	20618.12

Source: Annual report 2064-65 to 2068-69

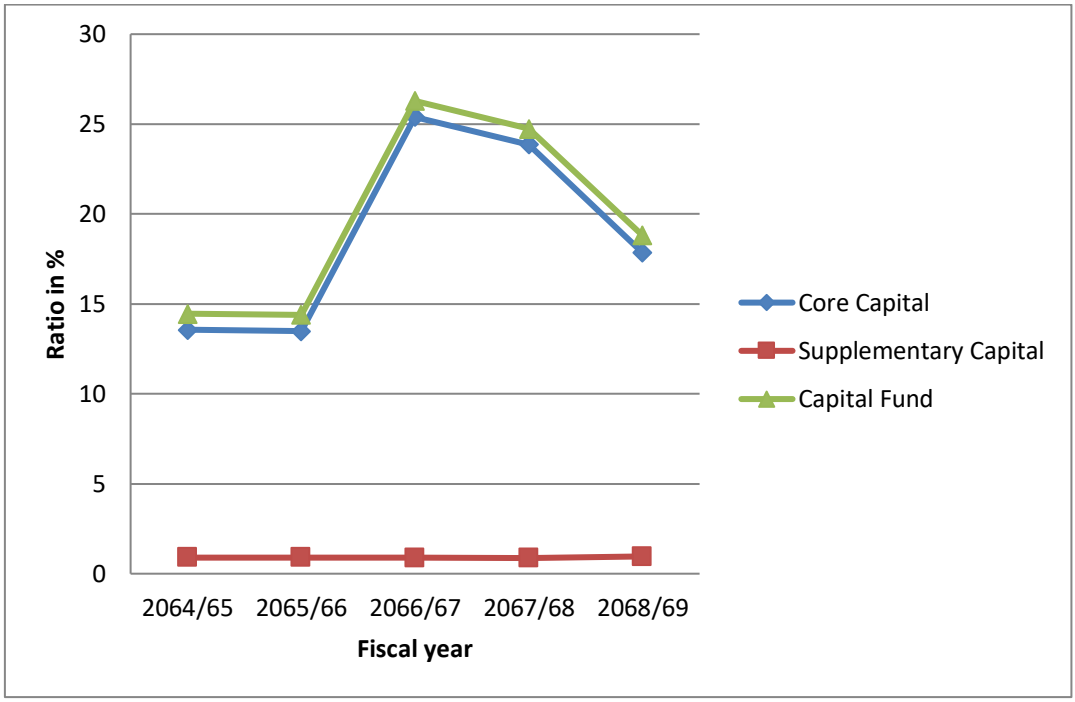
The above table shows that the core capital, supplementary capital, total capital fund and total risk weighted assets of PDB are in increasing trend over the study period.

Table 4. 6: Capital Adequacy Ratio of Total Risk Weighted Exposures of PDB

Year	Core Capital	Supplementary Capital	Capital Fund	As per NRB norms	Difference
2064-65	13.55	0.90	14.45	11	3.45
2065-66	13.49	0.91	14.39	11	3.39
2066-67	25.39	0.89	26.29	11	15.29
2067-68	23.86	0.87	24.73	11	13.73
2068-69	17.84	0.96	18.81	11	7.81
Average	18.83	0.91	19.73		8.73
S.D	5.01	0.003	5.01		5.01
Variance					25.07

Source: Annual report 2064-65 to 2068-69

Figure 4. 3: Trend of Capital Adequacy Ratio of PDB



Above table 4.6 and figure 4.3 shows the capital adequacy position of PDB as per BASEL I capital adequacy norms. The percentage of core capital; supplementary capital and capital fund is in fluctuating trend over the study period. Core capital and capital fund are decrease in 2065/66 then both are increase two fiscal year and again they are decrease in 2068/69, in case of supplementary capital the table show that it increase when core capital and capital fund decrease and decrease when they increase. As per the norms, core capital should be 5.5% of total risk weighted assets and Capital Fund should be not less than 11% of total risk weighted assets. The above table shows that PDB meet the regulatory requirement of NRB directives. PDB is holding more capital fund in idle because variance of the CAR is higher and inconsistent.

Table 4. 7: Calculation of Mean, S.D. & Variance of Difference Between NRB Norms and DBs CAR

Bank	Mean	S.D.	Variance
BDB	5.27	4.19	17.56
SDB	10.77	7.95	63.14
PDB	8.73	5.01	25.07

Source: Annexure A1

Above table 4.7 show the variance of different between banks CAR and CAR as per NRB norms. Variance of SDB is higher than BDB & PDB; it means CAR more fluctuating over the study period which is not good for banks future. More variance in CAR show the bank is holding more portion of capita idle and bank is not following appropriate investment policy to maximize utilize the liquidity and available fund .According to NRB norms capital adequacy ratio is 11% and buffer level is 1% but selected development has more capital adequacy ratio. In case of bank maintain CAR less than NRB norms they should face prompt corrective action (PCC).But in this study selected DBs are maintain CAR more than NRB norms. With comparison between three banks, BDB has less variance which indicates BDB is more concern about utilization of capital .Some time banks CAR increase due to issues of new share, bonus share issuance and right share etc. but banks should concern about the higher CAR to invest in productive sector.

4.2 Analysis of Lending (Investment)

Main sources for investment for bank are collected deposit from depositor. Bank collect deposit and invest in different sector like deposit to NRB, deposit on other financial institution for interest income, invest onto bond, securities and other financial institutions share and loan and advances.

4.2.1 NRB Balance to Total Deposit Ratio

NRB has directed all the development banks to deposit certain percentage of total deposit In NRB balance. The ratio is calculated as NRB balance to total deposit = NRB deposit/ total deposit

Table 4. 8: Calculation of Mean, S.D and C.V of NRB Balance to Total Deposit

NRB balance to total deposit ratio								
Year	2064-65	2065-66	2066-67	2067-68	2068-69	mean	S.D	C.V%
SDB	2.886	2.294	6.332	3.498	8.966	4.795	2.504	52.222
BDB	0.189	0.178	3.79	0.257	1.665	1.216	1.405	115.54
PDB	0.291	0.034	0.081	0.011	0.1	0.103	0.098	98.146

Sources: Annexure A3 & A7

Through This table it is analysed the short term obligation capacity of two banks. NRB has directed all the banks to deposit certain percentage of total deposit in the NRB balance. Due to the changes in directives from time to time it seems fluctuating to maintain the liquidity position of the selected banks.

From the above table it has found that SDB has maintained average 4.795% as NRB balance out of its total deposit. It has fluctuating trend of liquidity position. The S.D of SDB is 2.504 and C.V is 52.222%.BDB has maintained an average ratio of 1.216% as NRB balance to total deposit. It also has fluctuating trend of liquidity position. The S.D of BDB is 1.405 and C.V is 115.543%. PDB has maintained an average ratio of 0.103% as NRB balance to total deposit. It also has fluctuating trend of liquidity position. The S.D of BDB is 0.098 and C.V is 95.146%.

It is clear from the above table that the selected banks have followed the NRB requirement. The mean ratio of SDB is higher than that of BDB and PDB. It indicates that SDB has maintained more liquidity in NRB balance than that of both. SDB has more consistency and uniformity to maintain liquidity position as it has lower ratio of C.V. i.e. 52.222%.

4.2.2 Total Liquid Fund to Total Deposit Ratio

The capacity of short term obligation of the bank is measured by the ratio of total liquid fund to total deposit. Higher ratio shows the higher capacity of payment on demand of money and vice versa. The ratio is calculated as; Total liquid fund to total deposit = total liquid fund / total deposit.

Table 4. 9: Calculation of Mean, S.D and C.V of Total Liquid Fund to Total Deposit

Total liquid fund To Total deposit								
Years	2064-65	2065-66	2066-67	2067-68	2068-69	mean	S.D	C.V%
SDB	1.222	1.56	2.148	1.391	2.118	1.688	0.379	22.453
BDB	2.065	18.784	1.806	2.802	3.409	5.773	6.529	113.095
PDB	1.646	2.534	3.945	3.393	4.97	3.298	1.143	34.657

Source: Annexure A4 & A7

Liquid fund is the amount kept by bank which is equivalent to the cash. Liquid fluids are required to meet the short Term obligation and to gain the image and satisfaction of the customers. NRB has directed all the development banks to maintain minimum 4.5% CRR which is changing from time to time. NRB has decreased its minimum requirement to 4.5%. Hence, the selected banks have decreased the liquidity ratio so as to increase the amount of loan and advances.

From the above table it has found that SDB Bank has maintained average 1.688% as liquid fund of its total deposit. It has fluctuating trend of liquidity position.. The S.D of SDB is .379 and C.V is 22.453%. BDB has maintained an average ratio of 5.773% as liquid fund. It also has fluctuating trend of liquidity position. The S.D of BDB is 6.529and C.V is 113.095%. PDB has maintained an average ratio of 3.298% as liquid fund. It also has fluctuating trend of liquidity position. The S.D of PDB is 1.143and C.V is 34.657%.

The mean ratio of SDB is lower than BDB and PDB. That mean SDB has maintained higher level of liquidity position than that of BDB and PDB. C.V of SDB is lower than BDB and PDB which represents more consistency and uniformity in liquidity purposes.

4.2.3 Loan & Advances to Total Deposit Ratio

This ratio measures the ability of the bank to mobilize their' total deposit on loan and advances. Increase in loan and advances results increase in profit of the banks. Hence, development banks target to increase the loan and advances to yield higher profit. Higher ratio indicates better utilization of fund. The ratio is calculated as;

Loan & advances to total deposit =loan advances/ total deposit

Table 4. 10: Calculation of Mean, S.D and C.V of Total Loan and Advances to Total Deposit

Total Loan & advances to total deposit								
Year	2064-65	2065-66	2066-67	2067-68	2068-69	mean	S.D	C.V%
SDB	78.23	85.666	81.904	91.389	67.671	80.972	7.948	9.816
BDB	93.89	89.57	88.278	82.48	75.814	86.006	6.266	7.286
PDB	102.083	109.825	104.894	83.346	78.32	95.843	12.487	13.029

Source: Annexure A6 & A7

The table shows that SDB has an average mean ratio of 80.972%. During 5 years of period the highest investment of SDB in loan and advances is 91.389% in FY 2067/68. S.D of This bank is 7.948 and C.V is 9.816%. BDB has an average mean ratio of 86.006%. It has highest ratio of investment on Loan and advance is 93.890% in FY2064/65. S.D of the concern bank is 6.266 and C.V is 7.286%. PDB has an average mean ratio of 95.843%. It has highest ratio of investment on Loan and advance is 109.825% in FY2065/66. S.D of the concern bank is 12.487 and C.V is 13.029%.

It is clear from the table that PDB has invested more deposits in loan and advances than SDB and BDB. Since BDB has lower ratio of C.V it indicates more consistency in this regard.

Figure 4. 4: Loan and Advances to Total Deposit of SDB

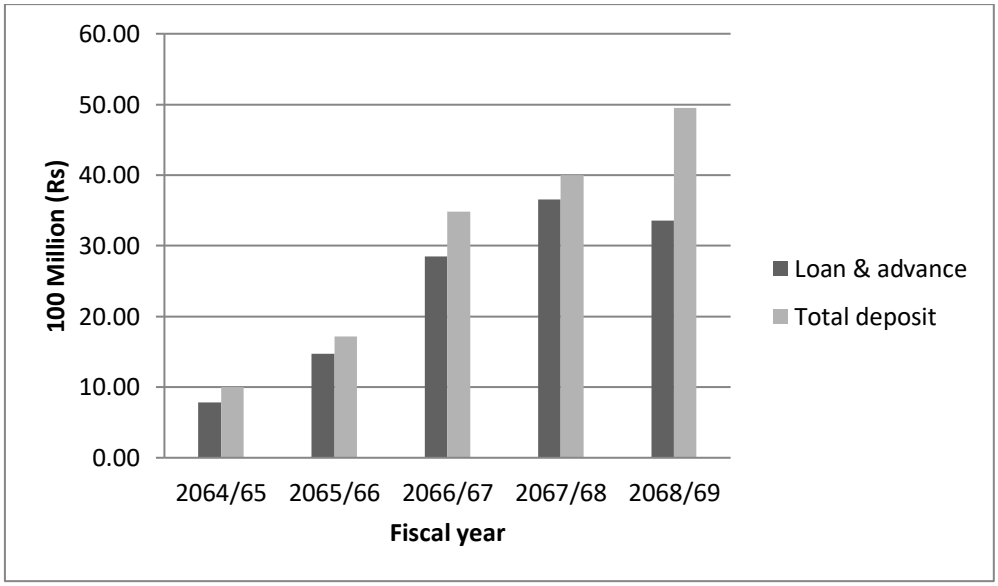


Figure 4. 5: Loan and Advances to Total Deposit of BDB

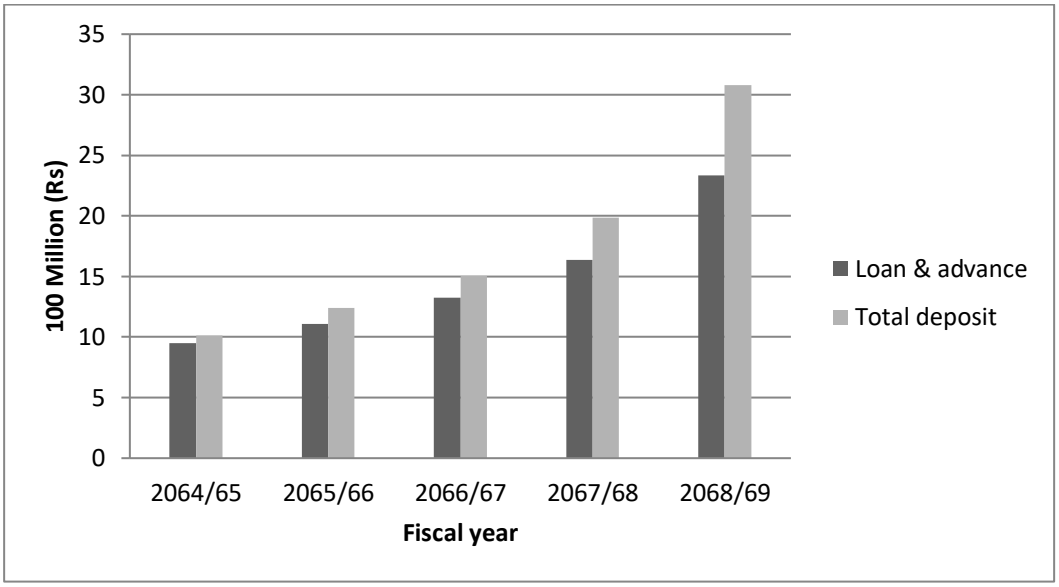
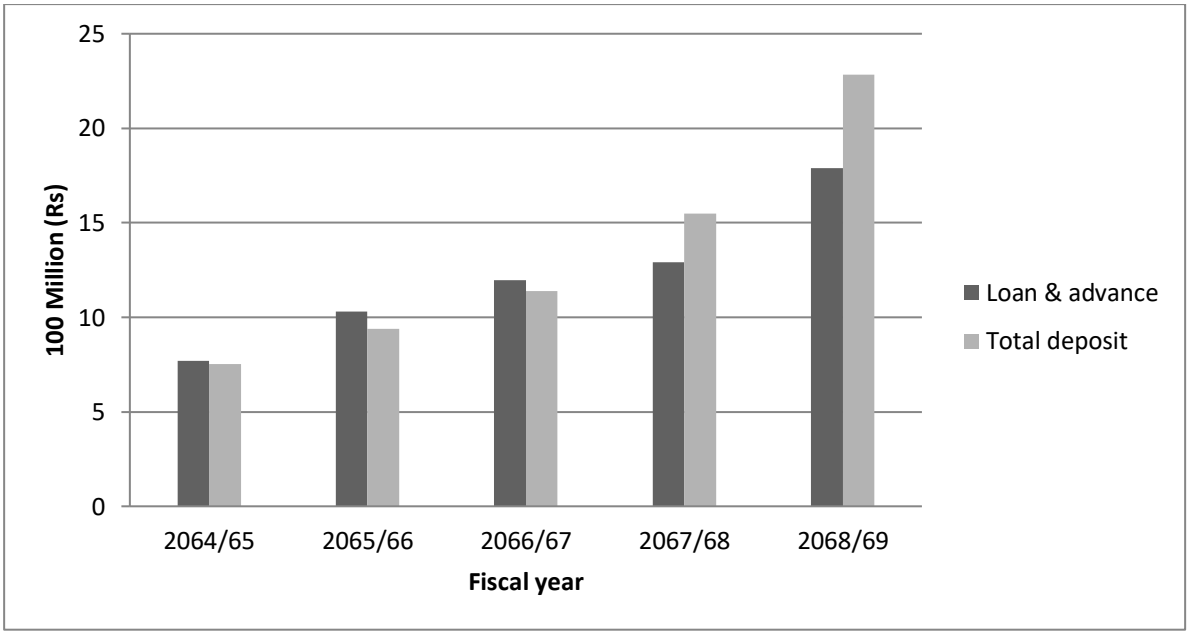


Figure 4. 6: Loan and Advances to Total Deposit of PDB



4.2.4 Total Investment to Total Deposit Ratio

The main objective of the banks is to make more profit. They make investments in different securities issued by government and other financial institutions. The ratio is calculated to know the efficiency of the development banks in utilizing the available deposits in different investment alternatives.

The ratio is calculated as;

Total investment to total deposit = total investment / total deposit

Table 4. 11: Calculation of Mean, S.D and C.V of Total Investment to Total Deposit

Total investment to total deposit								
Year	2064-65	2065-66	2066-67	2067-68	2068-69	mean	S.D	C.V%
SDB	9.53	6.578	9.154	5.36	6.854	7.495	1.594	21.268
BDB	12.889	9.903	6.672	2.935	0.822	6.644	4.411	66.391
PDB	2.654	0.213	7.985	0.614	0.467	2.387	2.931	122.79

Source: Annexure A5 &A7

The above table shows that the ratio of all three banks is in fluctuating trend. It is clear from the above table that SDB has higher mean ratio than BDB & PDB. C.V of SDB is lower than that of BDB & PDB this represents more consistency of investment procedure of SDB. It seems that SDB is more uniform in investment procedure.

Figure 4. 7: Investment to Total Deposit of SDB

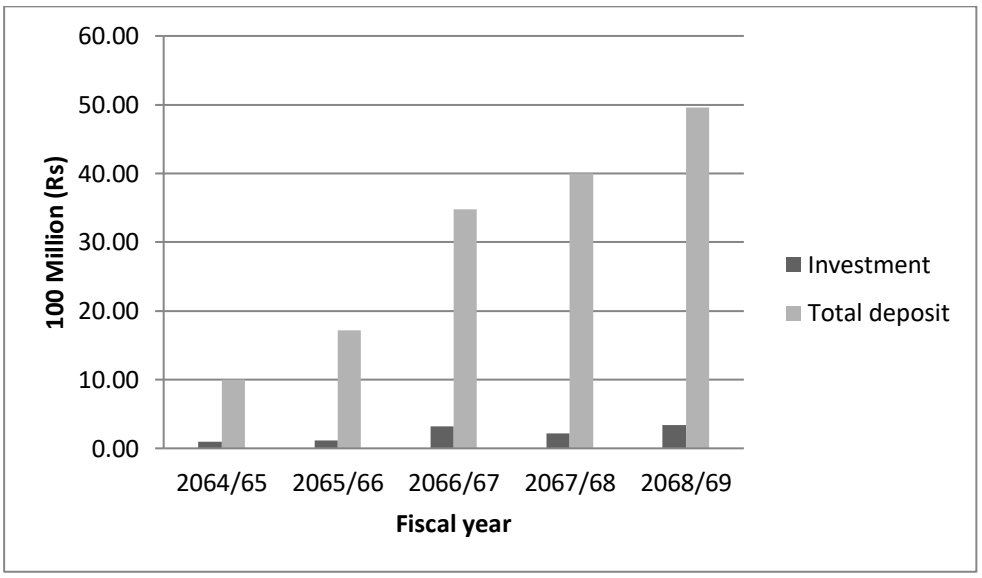


Figure 4. 8: Investment to Total Deposit of BDB

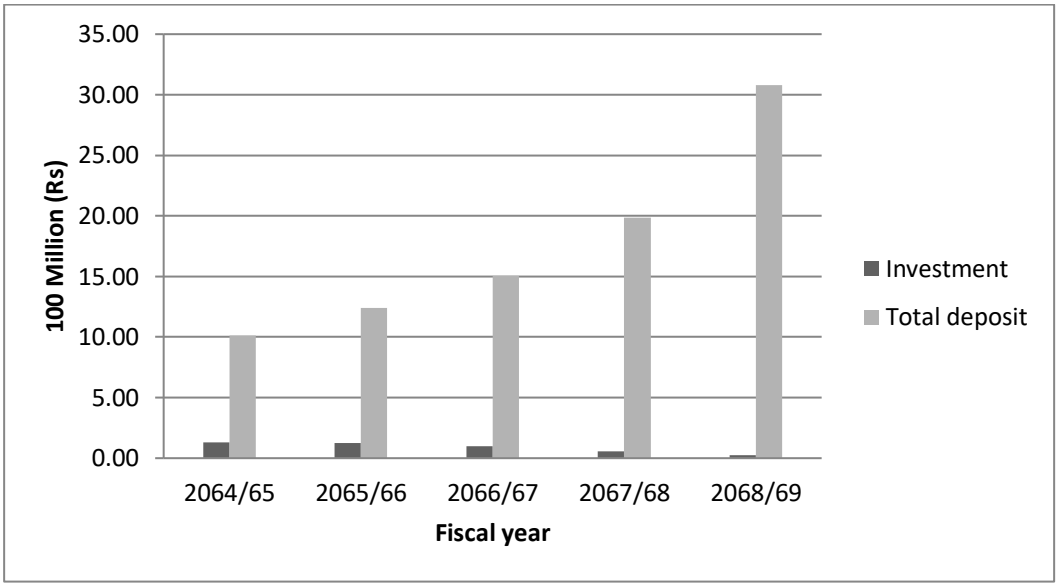
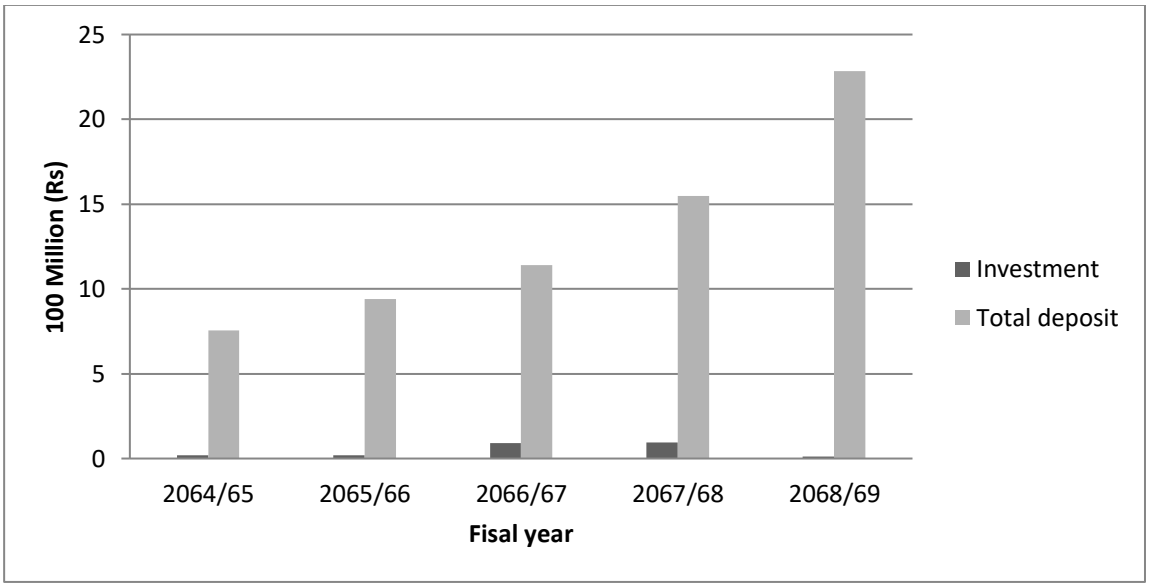


Figure 4. 9: Investment to total deposit of PDB



4.2.5 Correlation Analysis

Correlation is a statistical tool design to measure the degree of association between two or more variables. In other word if the changes in one variable affects the changes in other variable, then the variable are said to be co-related when it is used to measure the relationship between two variables, then it is called simple correlation. The coefficient of correlation measures the degree of relationship between two sets of figures. One of the very convenient and useful way of interpreting the value of

coefficient of correlation (r) between the two variables is coefficient of determination, which is denoted by r^2. It explains the total variation in dependent variable is explained by independent variable.

The significant of coefficient of correlation (r) is tested with the help of 't' test. If calculated 't' is less than or equal to tabulated value of 't' it falls in the accepted region and null hypothesis is accepted or 'r' is not significant of correlation in the population and if calculated 't' is greater than tabulated 't' null hypothesis is rejected or 'r' is significant of correlation in the population.

Relationship Between Total Deposit (TD) & Loan &Advances (LA)

Coefficient of correlation measures the degree of relationship between two variables, TD & LA. TD is independent variable (X_1) and LA is dependent variable (X_2). The purpose of computing is to find out the relationship between TD and LA is going to same direction or opposite direction.

Table 4. 12: Correlation between TD and LA

Factors	Banks		
	SDB	BDB	PDB
R	0.955	0.990	0.970
r^2	0.912	0.980	0.941
Calculated 't' Value	5.577	12.155	6.911
Tabulated 't' Value	2.201	2.201	2.201
Remarks	Significant	Significant	Significant
Relationship	High Degree of Positive Correlation	High Degree of Positive Correlation	High Degree of Positive Correlation

Source: Annexure A2

The above table describes the relationship between total loan and total loan loss provisions during the period of study. The coefficient of correlation (r) of SDB between total deposit and loan & advance is 0.9556. This figure shows the positive association between total deposit and loan & advance. It means total deposit and loan &advance both move towards same direction. The coefficient of determination (r2) is

0.912 it shows that 91.2% of the variation in the dependent variable (i.e. loan & advance) has been explained by the independent variable (i.e. total deposit). The calculated 't' value of SDB is greater than the tabulated value i.e. 5.577 > 2.201, therefore it reveals that the relationship between total deposit and loan & advance is significant.

The coefficient of correlation (r) of BDB between total deposit and total loan & advance is 0.990. This figure shows the positive association between total deposit and loan & advance. It means total deposit and loan & advance both are positive correlated and move towards same direction. The coefficient of determination (r2) is 0.980 it shows that 98% of the variation in the dependent variable (i.e. loan & advance) has been explained by the independent variable (i.e. total deposit). The calculated 't' value of BDB is greater than the tabulated value i.e. 12.155 > 2.201, therefore it reveals that the relationship between total loan and loan loss provision is significant.

The coefficient of correlation (r) of PDB between total deposit and total loan & advance is 0.970. This figure shows the positive association between total deposit and loan & advances. It means total deposit and loan & advance both are positive correlated. The coefficient of determination (r2) is 0.942 it shows that 94.2% of the variation in the dependent variable (i.e. loan & advance) has been explained by the independent variable (i.e. total deposit). The calculated 't' value of PDB is higher than the tabulated value i.e. 6.911> 2.201, therefore it reveals that the relationship between total deposit and loan & advance is significant.

4.2.6 Total Loan (TL) and Loan Loss Provision (LLP)

Loan is a contractual promise between two parties where one party, the creditor, agrees to provide a sum of money to a debtor, who promises to return the money to the creditor either in one lump sum or in parts over a fixed period in time. Out of total loan every development have two type of loan i.e. performing loan (PL) and non-performing loan (NPL) and as per NRB directive every bank should make provision loan and advances. After deduction the loan loss provision amount from total loan result come out as net loan (NL) Loan loss Provision is the amount of provision made by the bank to recover the any possibility of loss from the loan provided by the bank.

The directive of NRB 2069 recommends making compulsory provision of more than 1 Percent of total pass loan for the loan loss.

Table 4. 13: Profile of PL, NPL, TL, LLP and NL of SDB

(Amount in Rs)

Year	Performing Loan	Non-Performing Loan	Total Loan	Loan Loss Provision	Total Loan
2064-65	785885936.01	12937042.66	798822978.70	14841487.99	783981490.70
2065-66	1484562999.33	9453512.77	1494016512.10	2176758.65	1472839753.00
2066-67	2873266298.33	10017960.89	2883284259.22	33056951.13	2850227308.00
2067-68	3686344114.94	11319893.42	3697664007.36	40732822.02	365931185.30
2068-69	3123139377.00	441501260.00	3564640637.00	212084166.00	3352556471.00

Source: Annual reports of 2064-65 to 2068-69

Table 4. 14: Profile of PL, NPL, TL, LLP and NL of BDB

(Amount in RS)

Year	Performing Loan	Non-Performing Loan	Total Loan	Loan Loss Provision	Total Loan
2064-65	1056832119.37	2509176.25	1059341295.62	9396062.22	1049945233.40
2065-66	1118618413.81	2907088.14	1121525501.95	12678659.68	1108846842.27
2066-67	1338684955.72	3460445.00	1342145400.72	15013307.31	1327132093.43
2067-68	1651308944.92	8389285.95	1659698230.87	21052898.68	1638645332.37
2068-69	2347959009.75	14641643.15	2362600652.90	29365328.01	2333235324.89

Source: Annual reports of 2064-65 to 2068-69

Table 4. 15: Profile of PL, NPL, TL, LLP and NL of PDB

(Amount in RS)

Year	Performing Loan	Non-Performing Loan	Total Loan	Loan Loss Provision	Total Loan
2064-65	772235594.50	10783220.00	783018814.50	13712028.94	769306785.56
2065-66	1028510691.27	22890409.51	1051401100.78	20435507.21	1030965593.57
2066-67	1201714756.48	12837780.40	1214552536.88	19153574.55	1195398962.33
2067-68	1298372792.36	12466012.39	1310848804.75	20878165.90	1289970638.85
2068-69	1801597848.65	11089915.23	1812687763.88	23641194.53	1789064569.35

Source: Annual reports of 2064-65 to 2068-69

Table 4. 16: Non- Performing Loan of SDB, BDB & PDB

(Amount in RS)

Year	SDB	BDB	PDB
2064-65	12937042.66	2509176.25	10783220.00
2065-66	9453512.77	2907088.14	22890409.51
2066-67	10017960.89	3460445.00	12837780.4
2067-68	11319893.42	8389285.95	12466012.39
2068-69	441501260	14641643.15	11089915.23

Source: Annual reports of 2064-65 to 2068-69

Above table 4.12, 4.13, 4.14 &4.15 shows the performing loan, non-performing loan, total loan, loan loss provision and net loan of selected DBs. All components of these tables are in increasing trends but in FY 2065-66 SBD has decrease the non performing loan which is good sign for the bank. Non- performing loan of SDB in is comparatively higher than BDB & PDB to fourth year of study period, although it has decrease on 2065-66 but in fifth year of study period it comparatively less than PDB. With the comparison of non- performing table of three banks BDB is better has less non- performing loan than both. Lending strategy is main component to determine non- performing loan, because if the bank invest in appropriate sector there will be

low chance to change pass loan to bad loan or non performing loan. With the increase of non- performing loan, loan loss provision should increase as per NRB directives, when NPL become higher it hold more proportion of capital as idle for reserve. If banks follow strong lending strategy as per NRB directives and circular amount of NPL will decrease and with the positive relation with LLP it also decrease which is helpful to meet the mission of the banks. To utilization of depositors deposit bank should invest that money in secure sector, for this purpose "MAST" should be followed, where MAST stands for:

M - Marketable

A - Ascertainable

S - Stability

T - Transferability

4.3 Major Findings

- As per BASEL I capital adequacy norms for development banks, core capital should be 5.5% of total risk weighted assets and Capital Fund should be not less than 11% of total risk weighted assets. All the sample banks meet the regulatory requirement as per the norms.
- The amount of core capital, total capital and risk weighted assets of BDB and PDB are in increasing trend. But in case of SDB; core capital, total capital and risk weighted assets of the bank is increasing up to fourth year of study period after FY 2067/68 it seems in decreasing.
- Trend of capital adequacy ratio of selected DBs are in fluctuating over the study period.

- Basel capital regulation framework has helped in developing suitable prudential norms to save the banks and financial institutions from financial crisis and signal of failure. It has become important to prevent unfavourable impact on the economy.

- From the analysis of sample banks, all banks have maintained adequate level of total capital fund during the study period. As compared to the core capital

supplementary capital is very low. Around 90% of total capital is derived from the core capital and small portion is from the supplementary capital.

- New amendment in capital adequacy has significantly changed the operating producer of development banks. Since there are the provision for supervisory/regulatory authorities and banks themselves would be granted more discretionary power on application of the provision; the maintenance of required capital adequacy has got some broad area. When the new changes are made on July 2009, the capital adequacy of the development banks seems to have showing resistance to change.

- It is found from the study that the amount of total deposit collected by SDB in each year during the 5 years of the study period is higher than that of BDB & PDB; although all selected DBs are in increasing trend.

- Total loan & advance ratio of PDB is higher than SDB & BDB during first three year but in forth year it is lower than SDB and higher than BDB (i.e. 82.4680< 83.346< 91.389). It is clear that investment policy adopted by PDB is sound from the profit point of view.

- Banks has given more priority on loan & advance and then investment. Hence they have maintained lower liquidity to accept higher level of interest rate risk.

- The study has found that total deposit and loan advances and investment of SDB is in increasing trend except in fifth year. Likewise, PDB is also in increasing trend up to third year of study period but BDB is in decreasing trend.

- Calculated‘t’ value is higher than tabulate‘t’ value of selected DBs (i.e. 5.577, 12.155 & 6.911>2.201). Therefore; there is significant relation between total deposit and loan and advance of SDB, BDB and PDB.

- Amount of non- performing loan of BDB is lower than SDB & PDB (for example in FY 2066-67, 3460445.00 < 10017960.89, and 12837780.40) although it is increasing over the study period.

- Because of the low non- performing loan of BDB, this study found lending strategy of BDB is better than SDB & PDB.

- Discussion held with related authority of studied DBs, they are using character, capacity, credit, condition and collateral as main lending policy or strategy. Beside this, banks gathers credit related information of borrower through Credit Information Bureau (CIB). Banks study about market status of the sector where they are going to invest, previous relation of borrower with other banks and financial institutions (if borrower has any type of A/C with other banks and financial institutions), income source shown by borrower is justifiable or not. After getting the positive response from all these, selected DBs invest or provide loan within the limit determine by the NRB directives.

CHAPTER-5

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 Summary

As the Basel-II capital accord are being imposed internationally as the capital adequacy framework of all financial institutions, Nepalese financial market is also began to be affected by the rules. NRB also started imposing capital regulation framework with amendment in every successive. Capital adequacy describes the risk management and risk absorbing capacity of the bank. There must be enough equity capital with the bank to take the risky ventures, this equity capital acts as cushion to absorb loss before it passes on to the deposit holders. These measures also affect the profitability of the banks, which induces banks to invest in less risky ventures.

Banks must maintain capital fund based on amount of assets held and riskiness of the assets held. They must maintain certain percentage of capital fund of the total risk weighted exposure. Risk weight is assigned according to the riskiness of the exposure. For example, risk weight of loan against residential property is lower than risk weight against commercial property. So with the same amount of capital banks can lend lower amount against commercial property higher against residential property.

Nepalese banks have started adopting the norms from 2008/09. In order to ensure a smooth transition to new approach prescribed by this framework, a parallel run for the whole year from Mid July 2007 (Fiscal Year 2007/08) was conducted. The returns submitted by the banks during this period were minutely reviewed by NRB to identify any anomalies. The identified shortcoming on the returns was advised to the bank management so that they could be rectified before we move onto fully fledged implementation. Based on the findings of the parallel run, amendments and modifications have been incorporated in the framework wherever deemed necessary. However, there was no penalty for not meeting norms of Basel II during FY 2007/08.

Investment (loan) is the major assets of a bank commanding higher proportion of total assets of any bank. This is also a primary function of bank. Primarily, banks are there to accept deposit and to advance credit. Legally, a loan is a contractual promise

between two parties where one party, the creditor, agrees to provide a sum of money to a debtor, who promises to return the money to the creditor either in one lump sum or in parts over a fixed period in time. In addition to the principal, the lending institution generally charges the borrower a fee, referred to as interest on the debt, for the privilege of using this newly-created money. This interest is the major source of income for any bank, which covers interest to be paid to deposit holders and other operational costs like staff salary, rent, utility bills, stationeries etc. Where there is lending there always is risk of default.

Development banks need to keep optimum relation between deposit collection procedure and loan policy. The idle money collected by the development banks as deposits should be properly utilized either by granting loan to the needy parties or by making investment in the productive sector to earn more profit. Development banks should have sound investment policy for mobilization of the available fund. A deposit is that liabilities of development bank which is returnable in demand at any time. So, sound investment policy has appeared to be very necessary to them. Development banks mainly focuses on its two functions i.e. collection of deposit through various scheme and granting those amount as loan to the customers by providing various facilities.

Different new clause and acts are added in directives and some old regulations are also amended in different phase of time to uplift banking system in Nepal and to cope with the international standard. To reduce the cost of fund and enhance investment and credit exposure NRB has decreased the CRR to 4.5%.

5.2 Conclusions

As per the analysis of Basel, capital regulation framework it has been concluded that it has helped in developing suitable prudential norms to save the banks and financial institutions from financial crisis and signals of failure. It has become important to prevent unfavourable impact on the economy. Nowadays, the operating environment of the banks has changed radically, and their risk management systems have also improved. In the new conditions, the calculation of capital charges under the current regime has proved insufficient because it covers only risk. Accordingly, a revision of

the capital adequacy framework is justified in order to capture the various factors affecting banks risk exposure. Due to the ever-changing investment pattern of the development banks and the inconsistency in the bank's management and policies, despite the continuous growth in the capital fund from its components but the rate of growth is very volatile and there is no consistency in the trend of capital fund.

In conclusion, it can be said that central banks are required to direct the development banks. DBs should move as per the direction given by the central bank. Banks should have optimum policy to collect the deposit in various accounts. Deposit is the major organ of development bank to live in the industry. Higher the deposit higher will be the chance of mobilization of working fund and profit thereto. Banks should not invest their' fund randomly. It should be careful while advancing investment because loan is the blood of the DBs for survival. If DBs does not apply sound investment policy it will be in great trouble in future to collect it in time, hence the possibility of bankruptcy. Banks should invest their fund in various portfolios after the deep study of the project to be safe from being bankruptcy. If banks concentrate the investment in few organizations there is a high chance of default risk. Hence, the DBs should implement the investment policy considering the directives issued by NRB. DBs should not cross the boundary level set by central bank to make investment policy.

5.3 Recommendations

- Development banks should declare the breakdown of risk exposure for credit risk, operational risk and market risk and give appropriate weight. By the end of 2010 branches of the international banks can be established in Nepal as the globalization and membership of Nepal with WTO, adequate capital and risk assessment provide the base to compete with the international financial institutions.

- To maintain the adequate capital, the creditworthiness of the banks should be assessed which is not currently available in Nepalese financial market. Therefore, in the direction of the NRB, a national level credit rating agency should be established and the capital adequacy framework should be imposed

according the credit rating of the institutions. This will prevent the burden of the banks having high credit worthiness to maintain more capital.

- Adequate rules and capital adequacy should be issued for nonbank thrift institutions as well, because they are the institutions competing with the commercial and other banks and the customers of both industries are same. So to protect the savers, along with the banking industry, other financial institutions are also should be complied with the new framework of capital adequacy.
- Good management information's system and risk management technique should be implemented. Supervisory response should be done regularly and huge negative net worth problem should be solved by introducing reasonable tools by the regulatory body. For risk management, banks should always focus on efficient portfolio of assets and maturity matching of liabilities with the assets.

- Development banks should also focus on the supplementary capital as the major component of the capital fund. Moreover, it has been found that only few development banks are using the risk mitigation techniques, so they are advised to make a move towards the risk mitigation to make more of their fund eligible for capital fund.

- To be a successful banker a bank must utilize depositors' money as loan and advances. Loan and advances is the largest item of the bank in the asset side of balance sheet which is risky and more profitable too. Development banks are recommended to follow the liberal lending policy to increase their total loan and advances in order to earn more profit.

- Total investment made by the selected bank is in fluctuating trend. So sample banks must seek new places or sectors for investment, with potentiality of high return and low risk and should make rational investment.

- Higher non- performing loan is not good sign for banks future. Non-performing Loan of the SDB is higher than BDB & PDB as per this study therefore; banks should conscious on lending strategy.

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ANNEXURE

Annex-1

Calculation of Mean, S.D. and Variance of CAR and NRB Norms Difference of Selected Banks

Year	CAR as per NRB	Banks CAR			Difference(CAR-CAR norms)(X)			(X-mean)2		
		BDB	SDB	PDB	BDB	SDB	PDB	BDB	SDB	PDB
2064-65	11	11.25	14.40	14.45	0.25	3.40	3.45	25.20	54.32	27.88
2065-66	11	11.49	36.98	14.39	0.49	25.98	3.39	22.85	231.34	28.52
2066-67	11	20.79	21.31	26.29	9.79	10.31	15.29	20.43	0.21	43.03
2067-68	11	20.55	19.18	24.73	9.55	8.18	13.73	18.32	6.71	25
2068-69	11	17.27	16.96	18.81	6.27	5.96	7.81	1	23.14	0.85
N=5	Total				26.35	53.83	43.67	87.8	315.72	125.28

For BDB,

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N} = 26.35 \div 5 = 5.27$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum(X-\bar{x})^2}{N}} = \sqrt{\frac{87.8}{5}} = 4.19$$

Variance ($\boldsymbol{\sigma}2$) = (4.19)2 = 17.56

For SDB,

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N} = 53.83 \div 5 = 10.77$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum(X-\bar{x})^2}{N}} = \sqrt{\frac{315.72}{5}} = 7.95$$

Variance ($\boldsymbol{\sigma}2$) = (7.95)2 = 63.14

For PDB,

$$\text{Mean } (\bar{X}) = \frac{\sum X}{N} = 43.67 \div 5 = 8.73$$

$$\text{S.D } (\sigma) = \sqrt{\frac{\sum(X-\bar{x})^2}{N}} = \sqrt{\frac{125.28}{5}} = 5.006$$

Variance ($\boldsymbol{\sigma}2$) = (5.005)2 = 25.06

Annex-2

Table: Calculation of T value from the correlation between total deposit, and loan and advance

Banks	r	r^2	1- r^2	$\sqrt{1-r^2}$	n	n-2	$\sqrt{n-2}$	T-calculated
SDB	0.955	0.912025	0.087975	0.296606	5	3	1.732051	5.5767909
BDB	0.99	0.9801	0.0199	0.141067	5	3	1.732051	12.1554008
PDB	0.97	0.9409	0.0591	0.243105	5	3	1.732051	6.91096385

Annex-3

NRB Deposit of DBs

year	SDB	BDB	PDB
2064-65	28925.33	19618.16	21915.36
2065-66	394443.52	22142.26	3230.28
2066-67	2203666.57	56988.38	9200.73
2067-68	1399540.13	50986.81	1753.83
2068-69	4441754.16	512344.49	22943.6

Annex-4

Liquid Fund of DBs

Year	SDB	BDB	PDB
2064-65	122451.71	209210.65	124054.96
2065-66	268186.54	232533.06	237904.7
2066-67	747553.79	271451.91	449592.09
2067-68	556701.39	340399.65	525070.71
2068-69	1049414.7	871551.51	1135339.63

Annex-5

Investment of DBs

Year	SBD	BDB	PDB
2064-65	955000	1306000	200000
2065-66	1131013.37	1226000	20000
2066-67	3185677.35	1003000	910000
2067-68	2144939.41	583000	95000
2068-69	3395840.29	253000	106712.48

Annex-6

Loan & Advance of DBs

Year	SDB	BDB	PDB
2064-65	7839814.9	9513557.97	7693067.85
2065-66	14728397.53	11088468.4	10309655.93
2066-67	28502273.08	13271320.9	11953989.62
2067-68	36569311.85	16386453.3	12899706.38
2068-69	33525564.71	23332353.2	17890465.69

Annex-7

Total Deposit of DBs

Year	SDB	BDB	PDB
2064-65	10021482.02	10132739.11	7536124.68
2065-66	17192777.68	12379644.34	9387359.38
2066-67	34799404.28	15033532.71	11396154.23
2067-68	40015153.57	19867098.4	15477265.25
2068-69	49542166.25	30775648.26	22842681.38

Annex-8

Background of Selected DBs

Siddhartha Development Bank limited

Siddhartha Development Bank limited (SDBL) is the first Development bank of western region of Nepal established formally in the year 2056 which commenced operation on 11th Ashad, 2057. The Bank has been established solely with the aim of getting exclusive confidence of Nepalese market by rendering global standards of services through professional & quality management. SDBL has been promoted as a dedicated bank with a primary focus in the development of industrial trade and commercial in Nepal Besides debt financing, the bank also offers assistance to the clean and renewable energy projects by way of private equity and advisory and consulting services. The Bank which has been in profitable operation from its inception, has managed robust growths in its overall business and profitability during the recent years. The Bank offers a complete suite of banking products and services including transaction banking, business banking, project finance, corporate banking and consumer banking. According to Ashad 2069 (B.S.) the capital structure and shareholding pattern of bank are as follows.

Share Capital as on 2069 Ashad

Share Capial	Amount(Rs)
Authorized 13000000@100	13,000,000,000
Issued 6500000@100	650,000,000
Paid up 6450000@100	645,000,000

Bhrikutee Development Bank

Bhrikutee Development Bank was established in 2060 B.S. as “class B” bank in Butwal.

Its corporate office is at Butwal-8 Rupandehi. It established with the slogan of ‘your own bank’. It is operating its 19 branches all over the lumbini zone.

The bank came into existence with effort of the promoters of Bhrikutee Cooperative Organization which was established 18 years earlier in Shankarnagar VDC, Rupandehi. The initial capital is also borrowed from the same cooperative organization. The bank is founded by people from wide range of professions like farming, agriculture, business, service, industrialist and so on. So, everyone has the equal access to the bank. Similarly the promoters of the bank have the equal financial contribution. Hence it is the model bank of Nepal established in the rural area by the local people".

According to Ashad 2069 (B.S.) The capital structure and shareholding pattern of bank are as follows:

Percent of Capital	Amount
70% From Promoters	Rs. 22,48,93,400
30% From Public Shareholders	Rs. 9,61,98,400
Total	Rs. 32,10,91,800

level Development Bank and the process of Merge is on Progress. According to decisions of 7th AGM the paid up Capital of Bank will be going to increase up to NRs. 64,00,00,000 and establish as National.

Share Capital of BDB as on 2069 ashad

Share Capital	Amount (Rs)
Authorized 15000000@100	1500,000,000
Issued 6422606@100	642,260,600
Paid up 3210918@100	321,091,800

Pashchimanchal Development Bank Limited

Pashchimanchal Development Bank Limited (PDBL) is one of the recognized development bank established in 18th Chaitra 2059 situated in the Rupandehi District at Pushpalal Park - 8, Butwal. Within these years of operation period the bank has already established thirteen branches in different districts. PDBL is established with the aim to promote the development of the industrial sector, business sector and agricultural sector of the country by providing financial assistance as well as other

required assistance in the agricultural, service, business and different prospective sectors. Main vision of the bank is modern, qualitative, fair, competitive and credible banking service .Bank has provide different services to customer i.e. loan, ABBS services, ATM services, remittance, fund transfer, bank guarantee etc. According to Ashad 2069, capital structure of the bank is as follow:

Share Capital as on 2069 Ashad

Share Capial	Amount(Rs)
Authorized 13000000@100	13,000,000,000
Issued 6500000@100	650,000.000
Paid up 3365215@100	336,521,500

Annex-9

Resume

Personal details

Name:	Bhagabati Gyawali
Date of Birth:	22-06-1986
Nationality:	Nepali
Gender:	Female
Marital Status:	Married
Language:	Nepali (mother tongue), English and Hindi
Permanent Address:	Kamahariya-4, Rupandehi, Nepal
Temporary Address:	Kalikanager-13, Butwal, Rupandehi Nepal
Phone:	9841287125
E-mail:	bbhagabatigyawali@gmail.com

Summary of Academic Qualifications

Level	Year	Board/Institution	Grade (division)
Masters Degree in Business Studies (MBS)	2012	Tribhuvan University, Nepal	
Bachelors Degree in Business Studies (BBS)	2008	Tribhuvan University, Nepal	2nd division
10+2	2005	Higher Secondary Education Board, Government of Nepal	1st division
School Leaving Certificate (SLC)	2002	Government Board of Nepal	1st division

Trainings

- One month of Basic Talley Course from Nepal College of Computer studies in 2008.
- Five days of Basic Accountancy training in 2007 organized by the Department of Research and Training, Lumbini Banijya Campus, Butwal, Rupandehi.
- 15 days banking training from Global training institute, Butwal

Computer Skills

MS Word, MS-Excel, Talley

Working Experience

Position	From	To	Employer/Organization
Assistant	June, 2009	April, 2012	Bank of Kathmandu

Reference

Name	Email	Contact no.
Senior Asst. Deepa Bhoara	Deepa.bohara@bok.com.np	9847025725