

CHAPTER I

INTRODUCTION

1.1 Background of the Study

Globalization, liberalization, privatization, modernization and competition are the pillars for strengthening the financial sectors. These concepts should be adhered to at all the time in developing the strategy for the financial system. These five pillars give opportunities as well as risks to the financial sectors in the country. To minimize the risk of all banking industry is new challenges for bank supervision department. So, supervision department have developed new methods for monitoring and assessing banks on an ongoing basis.

Banking sector plays vital role in the economic development of any country. An effective banking system leads to the effective mobilization of sources like saving and investment which in turn leads to the sound economy health of the country. Banks offers the various types of services to their customers to facilitate the economic transactions. Banks are those financial institution that offers the wider ranges of financial services-especially credit, saving and payments services-and perform the widest range of financial functions of any firm in economy. This multiplicity of bank services and functions has led to banks being labeled “financial department stores.”¹ Bank failures have stronger adverse effects on economic activities than other

¹Peter. S. Rose, *Commercial Bank Management*, 5th ed. (New York: McGraw-Hill Companies Inc., 2002)8.

business failure. So banking is one of the most closely supervised industries.

Commercial banks are major financial institutions which occupy an important place in the economy. It performs various functions such as payments, financial intermediation between depositors and borrowers and other financial services.² In the same way commercial banks operation records the economic pulse reflecting economic situation of the country.³ Commercial Banks, by playing active roles, have changed the economic structure of the world. Thus, they have become the heart of financial system.

The most common supervisory methods used by the regulatory agencies in promoting safety and soundness are on-site supervision and off-site supervision.⁴ On-site examination ratings like CAMELS are useful in the analysis of the bank at the time of the examination. The CAMELS rating ranges from 1 to 5, lower rating representing better and well managed bank. CAMELS framework is a common method for evaluating financial performance. This method is development to assess not only of the financial performance of banks but also risk management. This CAMELS rating of banks is not disclosed to concerned banks and other external parties.

NRB central office prepared a working paper in 2006 about supervisory provision for foreign bank branches in Nepal. NRB supervises joint venture banks of financial information and compliance of applicable rules regulations and legal provisions including NRB directives. Performance of joint venture banks has been better than

² Benten E. Gup and James W. Kolari, *Commercial Banking: The Management of Risk*, 3rd ed. (Singapore: John Wiley and Sons (Asia) Pvt. Ltd., 2005) 8.

³ M.C.Vaish, *Money Banking and International Trade*, 8th ed. (New Delhi: Willey Eastern Limited, 1993) 246.

⁴ John O' Keefe, Verginia Olin, and Christopher A. Richardson, Bank Loan Underwriting Practices: Can Examiners' Risk Assessments Contribution Early-Warning Systems?, **Working Paper 2003-06, March 03, 2007.**

<<http://www.Fidc.gov/bank/analytical/working/wp/2003-6/index.html>>

domestic banks reflected in profitability position, non-performing assets levels and capital adequacy position.⁵

The commercial banks in Nepal can be broadly classified into two categories: public banks and private banks. The banks which are owned by government are called as public banks while the banks owned by the private sector are categorized as private banks. The private banks can be further regrouped into the domestic banks and joint venture banks. Nepal has adopted most liberal economic policies since 1990.⁶ The country is open to foreign investment and a numbers of joint venture banks came into existence. Out of 26 commercial banks six are joint venture.

Joint venture is a contractual business under taking between two or more parties and Joint venture bank is bank own by the joint investment of domestic investors and foreign banks. Joint venture banks have been increasing with an aim to provide modern banking services and facilities more effectives.

1.2 Focus of the Study

NRB as a regulator and supervisor of the banking sector has been effortful to ensure a healthy and efficient financial sector by improving regulation on par with international standard.⁷ Bank supervision department NRB bases its evaluation of financial performance of commercial banks on a CAMELS rating system. An effective performance measurement system presents both financial results and operating data of a responsibility basis. The study focuses

⁵ Nepal Rastra Bank, Nepal Rastra Bank Task Force on Foreign Bank Branches and the Health and Stability of Nepal's Financial System, **Legal, Regulatory and Supervision Provision for Foreign Bank Branch in Nepal 2006**, (Kathmandu : Nepal Rastra Bank) April 9, 2007.

< [http:// 7214.253.104/search?q=cache:5G L 9 LY-aqvsJ: www.nrb.org.np](http://7214.253.104/search?q=cache:5G L 9 LY-aqvsJ: www.nrb.org.np)>

⁶ Saroj Rijal, **Application of Management Control System of Nepalese Commercial Bank**, the Journal of Nepalese Business Studies, Vol. III, No. 1 (April 04, 2007).

< [http:// Journals. Sfu.ca/Nepal/index/php/JNBS/article/viewfile/486/473](http://Journals.Sfu.ca/Nepal/index/php/JNBS/article/viewfile/486/473) >

⁷ Dandapani Paudel , Financial Sector Development, **NRB in Fifty Years**, (Kathmandu: Sajha Prakashan ko Chhapakhana , July 2005)162.

on the financial performance of joint venture commercial banks in Nepal by using descriptive cum analytical research design. Many countries are applying CAMELS monitoring tools, which is designed by UFIRS to supervisory controls in the commercial banks operation and help to find the critical deficiencies faced by such banks. More specifically the study focuses on the trend of capital adequacy ratio and non-performing loan ratio relative to NRB standard and industrial average respectively. The study basically focuses on the past financial performance (from fiscal year 2001/02 through 2006/07) of JVB in the framework of CAMELS.

1.3 Statement of the Problem

Profitability position of all commercial banks is generally known through annual reports. But information given in the annual report is not enough to look into the performance of the commercial banks. Investors should analyze the performance on hand and on the other hand regulatory body should carry out off-site and onsite supervision of commercial banks and keep their sound financial health. The major problem of this study is to check up to the financial health of all joint venture banks of Nepal in the framework of CAMELS. Therefore this study has attempted to solve the following specific research questions:

1. How the JVBs are managing their Capital Adequacy?
2. What is the trend of non-performing assets and loan loss provision in JVBs?
3. How JVBs are managing their expenses with respect to revenues?
4. What is the trend of earning of JVBs?
5. What is the trend of liquidity position of the JVBs?
6. How changes in interest rates affect JVBs earnings?

1.4 Objectives of the Study

The fundamental objective of this study is to analyze the financial performance analysis of all joint venture banks in the framework of CAMELS. The specific objectives of the study are given below:

- 1 To analyze the capital adequacy of JVBs.
- 2 To analyze the trend of non performing assets and loan loss provision in JVBs.
- 3 To analyze operating efficiency of management of JVBs.
- 4 To analyze the trend in earning of JVBs.
- 5 To analyze liquidity position of JVBs.
- 6 To analyze the sensitivity of earnings to interest rates risk of JVBs.

1.5 Significant of the Study

This study is the financial performance of joint venture banks in Nepal in the framework of the CAMELS. It will help to know the existing problem of banks and give recommendation their sound financial health. This research would help to managers to evaluate performance of their banks. CAMELS rating system will crucial and convenient technique to assess the financial performance of any financial institutions and it will provide a framework for the supervisory authority. Other hand, the study is an important for the commercial banks, researchers, scholars, students and many other partners. At last it will add little worth to those who want to conduct a research work in the related topic.

1.6 Delimitation of the Study

Although various methods are use in financial performance of commercial banks, CAMELS Rating System is focused of the study. It will cover only 6 years of period begins from the fiscal year 2001/002 to 2006/007. The analysis of the study is based on its annual reports, NRB publication and work papers.

1.7 Organization of the Study

The whole study is organized into five chapters. The first chapter deals with the *Introduction* including backgrounds, focus of the study, statement of the problem, objectives, significance, delimitations of the study and organization of the study. The second chapter deals with *Literature Review*. It reviews the relevant theories and past empirical studies. It includes conceptual review and research review. Chapter three describes the *Research Methodology* followed in this study. This includes the research design, population and sampled, nature and sources of data, data collection procedures, data processing. The fourth chapter deals with *Data Presentation and Analysis*. Finally, the fifth chapter covers the *Summary, Conclusion and Recommendation*.

CHAPTER II

LITERATURE REVIEW

This chapter is basically concerned with review of literature relevant to the financial performance analysis of commercial banks. Conceptual review and research review is most important part of this chapter. Conceptual review deals with various component of financial performance of commercial bank. Research review presents the dissertation, articles and other related published and unpublished materials.

2.1 Conceptual Review

This section presents the conceptual aspect of the study. It includes the concept of commercial banks, functions of commercial banks, historical development of commercial bank in Nepal, supervision system of NRB, method of financial performance analysis.

2.1.1 Concept of Commercial Bank

The concept of commercial bank evolved from the concept of commerce. The name commercial implies that banks devote most of their resources to meeting the financial needs of business firms.⁸ The commercial sectors development of a country is largely development upon services of commercial banks. The commercial bank is that financial institution which deals in accepting deposits of persons and institution, and giving loans against securities. These bank are also

⁸ Rose, *Money and Capital Markets* , 82.

provides technical and administrative assistance to industries, trades and business as well as a growing list of newer and more innovative services, such as investment advice security underwriting and financial planning. The commercial banks accept the deposit from unproductive sectors and channellize them in the productive sectors. They provide the working capital required by trade and industry in their day to day transactions. Apart from financing they also render services like collection of bills and cheque, safe keeping of valuables, finance advising etc. to their customers. In recent years, however, commercial banks have significantly expanded their offerings of financial services to consumers and units of government. Commercial banks “borrow money” with one hand at a low rate of interest and lend it with the other at a higher rate of interest. The difference between the borrowings and lending rate is the margin of profit of the bank. Although these banks are truly inspired with the objective of gaining profit, these commercial banks are established to accelerate common people’s economic welfare and facility to provide the banking services to the public and the state. The success of such a bank depends of the confidence that it creates in the minds of the public.

In this context, commercial bank is established with a view to provide short-term debt necessary for trade and commerce of the country along with other ordinary banking business such as collecting the surplus in the forms of deposit lending debts by discounting valuable goods in security acting an agent of the client etc⁹. In the same way, principally commercial banks deposits and provide loans primarily to business firm¹⁰.According to the Bank and Financial Institutional Act 2063, under section 47 relating to section 31, Bank and financial institutions is classified under four categories according

⁹G.B Upadhaya and N.R Tiwari , *Principle of Money and Banking in Nepal* (Kathmandu: Ratna Pustak Bhandar, 1980)78.

¹⁰ P.N.Abrol and O.P Gupta, *Commercial Dictionary* (New Delhi:Anmol Punlication,2002)230.

to paid up capital. The “A” classes financial institutions are called bank which should have to hundred cores paid up capital for national level and other “B”, “C” and “D” classes of financial institutions are called non-bank financial institutions such as development banks respectively. They also should maintain the paid up capital by doubling for existing capital provision.¹¹

Commercial banks have played a very significant role in creating banking habit among the people, widening area and business communities and the government in varies ways .These banks are controlled and regulated by central bank of the nation .In Nepal, Nepal Rastra Bank as a central bank, control and regulates all the commercial banks in the country.

2.1.2 Historical Development of Banking Industry in Nepal

The growth of banking in Nepal is not so long. In comparison with other developing or developed country, the institutional development in banking system of Nepal is far behind. Nepal had to wait far a long time to come to this present banking position. Now, the banking system is still in the evolutionary phase. Even though, the specific date of the beginning of money and banking deal in Nepal is not obvious, it is speculated that during the reign of different king, the evidence of minted gold and silver coins. Landlord, merchants and other individual moneylender have acted as lender in the un-organized money market.

At the beginning of 8th century Gunakamadev had borrowed money to rebuild the kathmandu valley and at the end of the same century, a merchant named, Shankhaghar, has started the “New year” Nepal Sambat after freeing all the people of kathmandu from the debt. This record proves the existence of money lender function at that time.

¹¹ Government of Nepal, **Bank and Financial Institution Act 2063**: Nepal Gazette (Kathmandu: Government of Nepal, Kartik 19, 2063)

In 11th century, during Malla regine, there were an evidence of professional money lenders and bankers. In 12th century, Sadashiva

Dev introduced silver coins. However, due to the absences of regulatory bodies, the moneylender to change high rate of interest and other extra dues on loans extended.

During the course of development of borrowing , we further come across the term “Tanka Dhari “at the ends of the 14th century, meaning moneylenders, which is one of the sixty four castes classified in the basis of occupation. In 1877 A.D. “Tejarath Adda” was established by then government. The main purpose of this institution was to provide credit facilities to the general public at minimum interest rate of five percent. The establishment of this institution marked the beginning of organized financial institution in Nepal.

After establishment of NRB, a number of financial institutions were established. In 1957 A.D, Industrial Development Bank was establish to promote the industrialization in Nepal, which was latter converted into Nepal Industrial Development Corporation (NIDC) in 1959 A.D. Rastriya Banijya Bank was established in 1966 A. D. as ‘the second commercial bank of Nepal’ which fully owned by government. As the agriculture is the basic occupation of major Nepalese, the development of this sector plays the prime role in the economy. So, separate Agriculture Development Bank was established in 1968 A.D. This is the first institution in agriculture as financing; it was established with the objectives of providing facilities and financial support to the public by bringing about dynamism in agricultural development of the nation and to provide the capital and loan to the agricultural field. It also gives the technological advice to the formers.

The process of the development of banking system in Nepal was not satisfactory up to 1980s. The country can not change its status by using only its own capital in the country with out importing the new technology from foreign country. So, in mid 1980s, the financial

liberalization policy introduced by the government. After declaring free economy and privatization policy, HMG encouraged the establishment of private banks including the foreign joint ventures. From this the real form to the development of the banking system started in Nepal. The banks began to offer their valuable services to the people through new technologies. This was the great significant event. Thus, Nepal Arab Bank Limited (NABIL) established in 1984 A.D. This is the first modern bank with latest banking technology, and then one after another several joint venture banks were established in the country. Nepal Indosuez Bank Limited (Later has been called Nepal Investment Bank Ltd.), Nepal Grindlays Bank Limited (now became Nepal Standard Chartered Bank Limited) were established under joint venture in 1985, 1986 AD respectively. NRB adopted a more liberal economy policy in establishing the commercial banks, as a result number of commercial banks come into existence like as Himalayan Bank Limited, Nepal SBI Bank Limited, Nepal Bangladesh Bank Limited, Everest Bank Limited, Bank of Kathmandu, and Nepal Bank of Ceylon. Thereafter, local national and regional level banks also came into the country. As a result, twenty six commercial banks are in operation (including the commercial banking wing of the Agriculture Development Bank) out of twenty six commercial banks. Nine banks were established in joint venture, however, at present there are six joint venture banks after withdrawal of foreign investment in three banks. Nepal Investment bank, Bank of Kathmandu, and bank of Ceylon (Later has been called Nepal Credit and Commerce Bank Ltd) have not foreign investment now. It has fully ownership of Nepalese shareholders.

2.1.3 Functions of Commercial Banks

Commercial banks are directly related with the people and institutions. Its functions are very attractive for people. In the past,

banks used to collect deposit from savers and provide loans to the businessmen and others. Now the services provided by bank have been expanded to money areas as human wants and the development of technology. In Nepal, the commercial banks perform the following functions;

Accept Deposits: The primary function of bank is to accept the deposits from savers. Banks accept deposits from those who can save money but cannot utilize them in profitable sectors. The bank allows for opening the three types of accounts to accept deposit for their customers. The first is the “current deposits” on which the bank does not pay interest. Especially, businessmen open the current account whose have to make a number of payment everyday. Money from these accounts can be with drawn as many times as desired by the depositors. There is no limit on the amounts of cheque. This account is a save custody of deposit and unlimited drawing facility to the account holders. Banks have provided saving account facility especially for general public who have some saving out of their income and expenditure. The main objective of this account is to encourage and mobilize small savings of the public. Rate of interest paid on this account is low as compared to that on fixed account. Similarly, with drawl facility is also restricted in some limit as compared to that of current account. When account holders want to deposit their fund for certain time period, they have to open fixed account in banks. The fund deposit in Nepal is three months, six months one year and two years above. The money deposited into fixed account cannot be drawn before the expiring of that period. So the rate of interest on this account is higher than other types of accounts.

Advancing of Loans: Commercial bank is a profit oriented business organization. So banks have to advance loans to public and generate interest from them as profit. After keeping certain cash reserves, banks provide short medium and long term loans to needy borrowers. For

security, banks generally provide loan on mortgage. Now-a-days, banking business is also facing sharp competitions. So, bankers, sometimes, provide loans without mortgage, too. Such loans are advanced on the basis of goodwill and relationship with the party. The loan proposal is very good. The probability of success of proposed business is very high. Then bank may sometimes advance loans for such business without any security, According to the needs of the borrowers, banks provide different types of loan for different time periods as given below:

Cash Credit: Banks advance loan as cash credit to businessman against certain specified securities. The amount of the loan is credited to the current account of the borrower in case of a new customer a loan account for the sum is opened. The borrowers can withdraw money through cheques according to his requirement. Interest is charged only the amount actually withdrawn from the account.

Overdraft: Generally, business and organizations open current account in bank. They deposit all receipts in the account and pay all dues through cheque. Bank provides overdraft facilities to such account holders; overdraft facility allows the customer to withdraw more than their deposit. The account holders have to go in a special contract with bank to get such facility.

Money at Call: It is a very short term loan provided by bank at a very short notice. Generally, loan under money at call has time duration of only one day to fourteen days. After that period, the money should be refunded. Such loan is useful especially for other financial institutions and traders.

Discounting Bills of Exchange: If a creditor holding a bill of exchange wants money immediately the bank provides him money by discounting bills of exchange. It deposits the amount of the bill in the current account of the bill holder after deducting its rate of interest for the periods of loan. The length is generally 90 days. When the bills of

exchange mature the bank gets its payment from the banker of the debtor who accepted the bill.

Credit Creation: Credit creation is one of the most important functions of the commercial banks. By the credit creation commercial banks become able to grant more loan than it has own capacity. Banks accept deposit in the different forms and advance loans on credit to customers. When a bank advances loan, it does not pay the amount in cash. However, it opens a current account in his name and allows him to withdraw by cheques. Thus the granted loan again deposited in the bank. For another customer also it is repeated the similar process in which advance loan on credit to customers however open current account I their name maintaining small cash in reserve and allows him to withdraw the required sum by cheques. This process is continued to other customer also because there are numerous transitions from taken place. Bank is also create credits or deposits by keeping small cash in reserve and lending the remaining amount of deposits. Therefore, the loans make of increase in the total amount of deposits.

Financing Foreign Trade: Commercial bank is finances foreign trade of its customer by accepting foreign bills of exchange and collecting them from foreign banks. It also transacts other foreign exchange business buying and selling of foreign currency.

Agency Services: Bank is an agent of its customers while collecting and paying cheque, bills of exchange, drafts dividends etc, it also buys and sells shares, securities debentures etc. for its customers. Further, it pays subscription, insurance premium customer bills and other similar charges on behalf of its clients. It also acts as a trustee and executer of the property and will of its customers. More ever, the bank acts all consultants to its clients. For these services, the bank charges a normal fee while its renders others free of charges.

Miscellaneous Services: Besides the above noted services, the commercial bank performs a number of other services. It acts as the

custodian of the valuables of its customers by providing these lockers where they can keep their jewelry and valuable documents. It issues various forms of credit instruments such as cheque, drafts and travelers cheque etc which facilitate their transactions. It renders underwriting services to companies and helps in the collection of funds from the public.

2.1.4 Supervisory and Monitoring System of the Nepal Rastra Bank

Central bank is the regulator of banks and financial institutions. Its' liability and obligation is to promote and maintain the safety, soundness and integrity of the financial system. An important function of a central bank is supervision and monitoring of banks and financial company to find out the solvency position and take corrective action in time when needed. Monitoring system is a check and follow-up system. It conform that suggestion and direction given while supervision are properly conducted or not. Central bank monitors commercial banks and financial institutions after supervision and inspection. There is a separate monitoring department in Nepal Rastra Bank. Based on the findings of supervision, the supervisory and inspection department gives advice and instructions to the banks and financial institutions to regulate their performances. In order to see whether these advices and instructors have been properly followed or not, bank monitors them. This is conducted through monitoring departments.

Before the establishment of the Nepal Rastra Bank, the function of the inspection and supervision used to be carried out by the officials by His Majesty government of auditor general office. With liberalization of financial sector in mind 1980s, a number of banks and financial institutions have been increased. These institutions provide services of varied nature by using advance technologies, in this context,

supervisory function of the Nepal Rastra Bank has become more challenging. As a result, supervision of financial institutions was established in 1984 A.D. as a separate department. Legal basis for supervision and monitoring of banks and financial institutions are under the Nepal Rastra Bank Act 2002, Section 29 of the commercial Bank Act 1974 section 34 of the financial company Act 1968. At the present there are separate departments for supervision of commercial banks and financial institutions namely banks supervisions department and financial institutions supervision departments.

Bank supervision department is responsible for executing the supervisory policies to ensure effective supervision of commercial banks of the country. Trained examiners and analysts in the bank supervision department supervise and monitor the activities of commercial banks. In addition to monitoring the financial condition of the banks, examiners also review compliance with applicable laws and regulations and seek corrective measures where necessary. The obvious key objective of supervision thus becomes to ensure the long run safety of the banking industry through promotion and consolidation of the public confidence in the country's banking system. Effective supervision of these institutions is an essential component of a strong economic environment. The task of supervision is to ensure that banks operate in a safe and sound manner and they hold capital and reserves sufficient to support the risk that arise in their business. Strong and effective banking supervision contributes in enhancing effective macro economic policy along with financial stability in any country. A weak regulatory framework and poor supervision provide grants for inefficient and unsafe banking practices which increase the risk of bank failure.

However, the nature of the supervision and its detailed application varies greatly from country to country depending upon principally, the characters of its industry its size and complexity and

the objectives and priorities. General, every central bank has a separate supervision department. Recently, supervision department adopts a modern method of supervision and inspection, newly developed by Bank for International Settlement (BIS). This method is found more effective in comparison to the tradition systems. It is known as “CAMEL Rating” method.

Nepal Rastra Bank (NRB) has adopted two approaches to monitor and supervise the financial health of the financial institution through off-site and on-site supervision.¹² CAMELS ratings of the commercial bank should be done after completion of on-site inspection and same should be used for internal purpose for further monitoring and necessary action in the areas of problems. In the case of Nepal, NRB has also introduced the system for rating all the banks every year on the basis of CAMELS rating system.

2.1.4.1 Need for Supervision and Monitoring

The world of finance has undergone profound changes as evidenced by the rapid technological development for processing and transmitting data, the growing internationalization of financial system, the increasing phenomenon of financial innovations coupled with competition and deregulation. The new financial environment has necessitated the development of new and the adaptations of existing supervisory policies, practices and procedures. The difficult economic environment has reduced earnings capacity of many sectors in the economy, there by affecting the overall performance of commercial banks. These challenges are deals with through effective banking supervision.

The banks and financial institutions are established with the permission of the central bank. When the central banks permit to carry

¹² Surendra Man Pradhan," *Supervision Framework*" **Nepal Rastra Bank in Fifty Years**, (Kathmandu: Nepal Rastra Bank, July 2005)138.

out transaction, it fixes various terms and conditions. In addition to it issues necessary directions from time to time about loan, deposits, liquidity, re-finance, capital fund, rate of interest and spread etc. It is very necessary to inspect their activities after investigating whether or not the banks and financial institutionaries have followed the current law and the direction and instruction of the central bank to move them in to the directed track. The common people, the central bank and the government do have deep interest in the well running of them because the banks and the financial institutions collect the amount from the public as deposits. Therefore, to secure the interest of the depositors and the investors to manage the strong and competent financial system regulation, inspection and supervision of the banks and financial institutions is considered compulsory. Although, cost of supervision is high, there are a number of reasons why supervision is important of commercial bank. So, the need for supervision and monitoring can be described as follows;

1. To investigate regulatory whether the banks and financial institutions have performed the functions within the limitation of the present laws and the direction or not.
2. To evaluate whether the present laws and regulation are sufficient or not.
3. To maintain stability and confidence in the financial system resulting into reduced risk of loss to depositors and other stakeholders.
4. To find out the effectiveness of the internal control system and rules.
5. To aware of whether the management information system is certain of not.
6. To ensure that banks have resources appropriate to undertake risks, including adequate capital, sound management

capabilities and effective control systems and accounting records.

7. To ensure that banks operate in a safe and sound manner and they hold capital and reserve sufficient to support the risk that arise in their business.
8. To decide whether the strategy of risk management has been followed or not, to lesson the possible risk in the banking and financial business.
9. To give necessary information to the banks.

There are also the key objectives behind the supervision of banks in Nepal. The basic objectives of supervision of NRB is to conduct a direct assessment of the overall condition of the banking institutions based on off-site and on-site evaluation of the institutions capital, assets, management, earnings, liquidity and a review of their records, systems and internal control and to determine whether the institutions has complied with relevant mandatory and regulatory requirements.

2.1.4.2 Method of Bank Supervision and Monitoring System

The most common supervisory tools used by the regulatory agencies in promoting safety and soundness are on site examination and off site examinations approach. Each serves a unique purpose. The ideal approach could vary for supervisors operating in different environment. However, the optimal approach lies somewhere between the two extremes since neither approach is a substitute for another. A mix of the two approaches would appear to yield the best result. Bank supervision department has been using a combination of these various approaches to supplement its supervision process. Generally, the supervision can be made in the following ways;

On-site Examinations: On-site examination to evaluate effectively the safety and soundness of the commercial banks and the banks are operating in line with prudential banking practice and complying with applicable laws and regulations. It is effective which cannot be covered in off-site supervision. Especially, the documents about loan accounts expenses, letter of credit, bank guarantee, remittance should be checked properly while on-site supervision which made by visit of the place of the bank by the team of inspections of the central bank.

There are four fundamental reasons for on-site examinations¹³. First, to determine the commercial bank, financial position and the quality of it's portfolio and operations so as to ensure that it is not operation against the interest of the depositors. Second, periodic on-site examinations provide the best means of determining banks adherence to laws and regulations. Third, the examinations, process can help prevent problem situations from remaining uncorrected and unhealthy to the point. Finally, examinations supply supervisors with an understanding of the nature relative seriousness and ultimate cause of banks problems and thus provide a sound factual foundation on which to base corrective measures recommendations and instructions.

Although, on-site examination is the most effective tool for sporting safety and soundness problem, it is costly and burdens some. On-site examination is costly to supervisors because of the examiner resources required and burdensome to bankers because of the intrusion into daily operations. In fact, physical inspection of banks books is often the only way to detect irregularities in the operation of the bank that may indicate illegal or ill-advised actions by bank employees.

In sum, on site examinations are the best way to supervisors to track the condition of banks, however, since examinations cannot be

¹³ John O' Keefe, Verginia Olin, and Christopher A. Richardson "Bank Loan Underwriting Practices: Can Examiners' Risk Assessments Contribution Early-Warning Systems?" **working paper 2003-06, 03,(2007)**.
< <http://www.Fidc.gov/bank/analytical/working/wp/2003-06/index.html>.>

continuously on-site, regulators also use off-site supervision to help span the gap between regulatory scheduled on site examinations.

Off-site Supervision: Bank supervisors support on-site examinations with off site supervision. Off-site supervision is performed by studying the documents provided by commercial banks. An inspection carried out without visiting the places of the banks. The function includes the analysis of financial statement other necessary documents, annual report, and information received from the commercial banks. Generally, documents and reports are received on a weekly, monthly, quarterly, annually basis. The off-site supervision is continuous process. From it we can get true picture of the problems of the bank. It makes it easy to devise the way for protection from the possible future crisis. The objective of off-site supervision is to quickly identify negative trends and emerging problems and to resolve the issues before they become so serious that they could negatively effect of commercial banks. Moreover, as the cost and complexity of examine banks have risen it has become increasingly more difficult for the banks regulators to attract and retain quality bank examiners. On the other hand, advances in computer technology give bank regulators the ability to monitor the condition of banks without conducting an on-site examination. Therefore, off-site monitoring of banks has become an important part of the regulatory examination umbrella.¹⁴ Use of off-site supervision, however, is not a substitute for periodic on site examination. Instead, it is a valuable complement to the examination process. Off-site supervision has several advantages. For instance, it is far less intrusive and uses fewer personnel than on-site examinations and since off-site supervision can identify banks that show sign of

¹⁴Gary Whalen and James B. Thomson, “*Using Financial Data to Identify Changes in Bank Condition*” (2005) April 11, 2007.
< <http://www.Clevelandfed.org/research/review/1998/88-q2-whalen.pdf>>

financial distress, it also helps regulators allocate on-site examination resources efficiently.

Off-site supervision can often identify potential problems, particularly in the interval between on-site supervision, thereby providing early detection and prompting corrective action. This supervision also identifies potential problems of the commercial banks and monitoring compliance of various prudential regulations issued by NRB to ensure long term stability of commercial banks.

In the course of supervision when inspectors find minor mistakes they provide suggestions and guidelines for correction. The inspectors should prepare a report containing all the findings after conducting supervision, if a bank is found to have violated or neglected the rules and regulations, the central bank, on the recommendation of supervision departments may be a simple warning to a stiff penalty like inaction license, penalty charges etc.

2.1.5 Financial Performance Analysis Framework (Method)

Financial performance as part of the financial management is the main indicator of the success or failure of the company. Various groups of individuals are particularly interested in evaluating bank performance. Such as managers, stockholders, depositors, regulators and other partners etc use different performance evaluation methods to evaluate banks.¹⁵

Banking business is competitive due to banks and FI's are growing dramatically. Now sharp competition in the banking sector has forced them to turn to the money and capital markets to raise funds by selling stock, bonds etc. At the same time competition for banks' traditional loan and deposit customers has increased dramatically. Credit unions, money markets, mutual funds, insurance companies, brokerage firms and even chain stores are fighting for a slice of nearly

¹⁵ Gup and Kolari, *Commercial banking: The Management of Risk*, 53.

every credit and deposit market traditionally served by banks. In this way banks financial statements are increasingly being examined by investors and by the public. All the trends have placed management under great pressure to set and meet bank performance.

Financial analysis is the process of identifying the financial strength and weakness of the firm. Banking institution to evaluate carefully the risks and returns involved in serving the needs of the public. Banks performance must be directed toward specific objectives. A fair evaluation of any bank's performance should start by evaluating whether it has been able to achieve the objectives its management and stockholders have chosen.

There are different methods to asses the bank performance financial .The most popular methods are Risk-Adjustment Return on Capital (RAROC), Economic Value Added (EVA), Return on Assets (ROE), CAMELS (Capital Adequacy, Assets Quality, Management Quality, Earning, Liquidity, and Sensitivity to market risk) methods and CAMEL plus Corporate Governance can be also evaluation of banks performance.

2.1.5.1 Financial Performance Analysis in the Framework (RAROC)/ROROC.

RAROC is the Risk-adjusted return on capital allocates equity capital depending on risk of loss, calculates a required rate of return and then uses this information in pricing loans to make sure that they are profitability to the bank. It is generally employed for the purpose of internal performance evaluations.¹⁶ RAROC method is developed with the aim in most cases of quantifying the amount of equity capital necessary to support all of their operating activities.

Development of the RAROC methodology began in the late 1970s, initiated by a group at bankers trust. Their original interest was to

¹⁶ Gup and Kolari, *Commercial banking: The Management of Risk*, 521.

measure the risk of the banks' credit portfolio as well as the amount of equity capital necessary to limit the exposure of the banks' depositors and other debt holders to a specified probability of loss. RAROC means that expected returns are subtracted from revenues along with other expenses. RAROC system allocates capital for two basic reasons; I) Risk management ii) performance evaluation. For risk management purpose the overriding goal of allocating capital to individual business units is to determine the bank's optimal capital structure. This process involves estimating how much the risk of each business unit contributes to the total risk of the bank and hence to the bank's overall capital requirements. For performance evaluation purposes, RAROC system assigns capital to business units as part of a process of determining the risk-adjusted rate of return.

RORAC refers to the return on risk-adjusted return on capital which also evaluates banks' profitability and risk. It represents a maximum potential loss based on the profitability of future returns necessary to cover loss associated with the volatility of earnings¹⁷. It is calculated by dividing the income by allocated risk capital. RORAC framework addresses whether specific lines of business generate acceptable risk-adjusted returns on allocated capital.

2.1.5.2 Financial Performance Analysis in the Framework of ROE

Bank's performance can be also evaluated using return on equity (ROE). It measures how much earnings a company can generate from its equity investment.¹⁸ ROE offers a useful signal of financial success since it might indicate whether the company is growing profits without pouring new equity capital into the business. Equity capital as

¹⁷ Timothy W. Koch and S. Scott Macdonald, *Bank Management* 5th ed. (Bangalore: Eastern Press Pvt Ltd, 2004) 175.

¹⁸ Ben McClure, **Keep Your Eyes on The ROE**. (Investopedia Oct. 1, 2003) April 30, 2007. < <http://www.investopedia.com/articles/fundamental/03/100103.asp>>

the sum of common and preferred stock paid in surplus, retained earnings, and reserve for future contingencies¹⁹.

This framework reveals how much profit a company generates with the money shareholders have invested in the company to other firms in the same industry. ROE helps investors determine if a company is profitable or inefficient. It is useful for comparing the profitability of a company to other firms in the same industry. The relationship between the company's profit and investors' return makes ROE a particularly valuable metric to examine. In 1972, David Cole introduced a procedure for evaluating bank performance through ratio analysis.²⁰ Aggregate bank profitability is measured and compared in terms of return on equity. The company's ROE ratio is calculated by dividing the company's net income by its shareholders' equity or book value. The profitability of two banks was analyzed using a return on equity framework. If the ROE is relatively low compared with other banks, it will tend to decrease the bank's access to new capital that may be necessary to expand and maintain a competitive position in the market. ROE, might not necessarily tell the whole story about a company and therefore, must be used carefully, it is a negative part of ROE.

2.1.5.3 Financial Performance Analysis in the Framework of EVA

Economic Value Added (EVA) is an internal bank performance metric computed as adjusted earnings (or net income after taxes) minus the opportunity cost of capital. EVA is useful in evaluating loans and other investments to determine if shareholders' wealth would increase.²¹ It measures corporate performance which reveals whether a company is earning more or less than the amount which its capital is costing. If its value is being added to the enterprises, which is good news for shareholders, if it is not, shareholders have cause for

¹⁹ Gup and Kolari, *Commercial Banking: The Management of Risk*, 522.

²⁰ Koch and Macdonald, *Bank Management*, 110.

²¹ Gup and Kolari, *Commercial Banking: The Management of Risk*, 510.

grievance because their capital would be better employed in a bank account earning interest.

The consulting firm Stern Stewart developed EVA to help managers incorporate two basic principles of finance into their decision making. The first is that the primary financial objective of any company should be to maximize the wealth of its shareholders. The second is that the value of a company depends on the extent to which investors expect future profits to exceed or fall short of the cost of capital.²²

EVA is a measurement tool designed to strengthen companies return on capital investment. A study of best practices in EVA reveals that the metric can help to reduce capital costs and improve gross revenues. Some analysts have called EVA the key to creating corporate wealth. The metric, which measures a company's net operating profit after taxes, focuses organizations on earning a target rate of return over and above the cost of capital. This target is what the business considers the minimum amount of return necessary to generate positive value from a capital investment. So, EVA is the financial performance measure that comes closer than any other to capturing the true economic profit of an enterprise and also measure most directly linked to the creation of shareholders wealth over time.

Although there are various methods of financial performance analysis of commercial bank, CAMELS rating method is more effective for comparison of commercial bank. CAMELS rating method is also conducted by the NRB's Bank supervision department to evaluate commercial bank performance. So it prefers comparison of joint venture bank through CAMELS rating method.

²² Bennett Stewart, "About EVA" (**Wikipediya, The Free Encyclopediya**) April 03, 2007.
< http://www.sternstewart.com/eva/about/what_is.php>

2.1.5.4 Financial Performance Analysis in the Framework of CAMELS Bank Rating System

The CAMEL rating system is an internal supervisory tool for evaluating the safety and soundness of financial institutions using by capital adequacy, assets quality, management quality earnings and liquidity. Infact the rating system initially emerges as CAMEL covering the first five parameters only. The six component sensitivity to market risk(s) has only been used since January 1, 1997.²³ The most notable change to the system is the proposed addition on an “S” to make “CAMELS”.

Federal and state regulations regularly assess the financial condition of each bank and specific risks faced on site examination and periodic report.²⁴ Based on these methodologies the bank’s operations are assessed in respect of the components of CAMELS and the individual ratings of the component and a consolidated. The Uniform Financial Institutions Rating System (UFIRS) was adopted by the Federal Financial Institutions Examination Council (FFIEC) on November 13, 1979. UFIRS is revised in 1997.²⁵ This rating is the UFIRS designed to evaluate banks condition on a uniform basis.

CAMELS rating system is used three federal banking supervisors (Federal Reserve, the FDIC, the office of the comptroller of the currency) and other financial supervisory agencies to supervision and examination time to time of bank. The CAMELS rating range from 1 to 5 CAMELS framework is common method for analyzing the health of financial institutions. All exam materials are highly confidential including the CAMELS. These ratings are not

²³ Koch and Macdonald , *Bank Management* , 140.

²⁴ R.Alton Gilbert , Andrew P.Meyer and Mark D.Vaughan, “The Role of a CAMELS Downgrade Model in Bank Sureillace.” **Working paper 2000-021A**, (The Federal Reserve Bank of St, Louis) 6. April 27, 2007.
< [http:// research. Stlowisfed.org/wp/2000/2000--021.pdf](http://research.Stlowisfed.org/wp/2000/2000--021.pdf)>

²⁵ Anthony Souders and Marcia Million Cornett,“*Financial Markets and Institutions: A Modern Perspective*” (New York: Mc Graw-Hill /Irwin Companies,2001) 366.

release to the public but only to the top management and the appropriate supervisory staff.

This rating system is common method for analyzing the health of financial institution. This system was originally developed by the FDIC. CAMELS are an ideal rating system practiced worldwide by central banks and rating agencies to evaluate and analysis safety and soundness of a bank. Reserve Bank of India has been used CAMELS ratings in its supervisory regulations of the banking system.²⁶ In Nepal CAMELS rating system is still in its initial phase NRB has introduced the system for rating all the banks every year.

Composite Ratings

An international bank rating system with which bank supervisory authorities rate institutions according to six factors.²⁷ The six factors are represented by the acronym ‘CAMELS’. The six key components used to assess an institution’s financial condition and operations are: capital adequacy, asset quality, management capability earnings liquidity and sensitivity to market risk. This rating is based on financial statements of the bank and on-site examination by three federal banking supervisors (the Federal Reserve, the FDIC, and the OCC) and other financial supervisory agencies to provide a convenient summary of bank conditions at the times of exam. The banks for this rating is the uniform financial institutions rating system (UFIRS) designed to evaluated banks condition on a uniform basis and to identify banks requiring special attention or concern. Bank supervisory authorities assign each bank a score on a scale from one to five with 1 being strongest and 5 being weakest. If a bank have an average score

²⁶R Kahnan, “How the Rating System Come into Uses” **Indian Banking in the Millennium CAMELS Rating System**. April 01, 2007.

< [http://www.Geocities.com/kstability/in bank 2/camels.html](http://www.Geocities.com/kstability/in%20bank%20camels.html)>

²⁷ Farlex, “CAMELS Rating System” **The Free Dictionary**. April 13, 2007

< [http://financial-dictionary.the free dictionary.com/camels](http://financial-dictionary.the-free-dictionary.com/camels)>

less than two it is considered to be a high quality institutions while banks with scores greater than 3 are considered to be less than satisfactory establishments. The system helps the supervisory authority identify banks that are in need of attention. Bank with ratings of 1 or 2 are considered to present few if any supervisory concerns while banks with raring of 3,4,5 present moderate to extreme degrees of supervisory concern.

The composite ratings from 1 to 5 are as follows.²⁸

Composite 1: The composite rating one is thought to indicate strong FIs that could weather adverse economic condition. These FIs are highest rating performance and risk management practices and thee least degree of supervisory concern. These FIs are in substantial compliance with laws and regulations.

Composite 2: The composite rating of two means that the FIs could be severely weakened by adverse economic conditions. FIs in the group are fundamentally sound but many reflect modest weakness correctable in the normal courses of business. Over all risk management practices are satisfactory relative to the institutions size, complexity, and risk profit.

Composite 3: The three rated FIs are through to be at risk in unfavorable economic environment. There FIs in this category exhibit financial operational or compliance weaknesses rating from moderately severe to unsatisfactory.

Composite 4: Four rated FIs are considered to be banks that are danger of failing unless corrective actions are taken. These FIs generally exhibit unsafe and unsound practices or condition. These are serious financial or managerial deficiencies that result in unsatisfactory

²⁸ FDIC, “Bank Examinations” **Risk Management Manual of Examination Policies: Basic Examination Concepts and Guidelines** (FIDC: Regulations and Examination, 2005) April 18, 2007 <http://www.fdic.gov/regulations/safety/manual/manual_examinations_full.pdf>

performance. There may be significant non compliances with laws and regulations.

Composite 5: FIs in this category indicates that the bank is likely to fail in the near future. These FIs are lowest rating performance, inadequate risk management precipices and therefore the highest degree of supervisory concern.

2.1.5.4.1 Capital Adequacy (C)

The first component of the CAMELS rating is capital adequacy. A key principle in bank supervision which is regards capital as the cornerstone of a banks' strength.²⁹ Bank capital is a source of financial support to protect an institution losses arising out of the unexpected risks. Strong capital base is the prerequisite for the safety and soundness of any bank. Commercial bank should have adequate capital to support the stability and sustainability of its operation. A financial institution, which has adequate capital can flow more loan and has the capital to bear the possible risk in future. Adequate capital helps to gain faith of the depositors, investors and the loan donors to increase the loan investment capacity to make defective property bearable and to make defective property bearable and to raise the credit of the bank. Bank capital serves three basic roles. The first, and most obvious, is that it is a source of funds. A new bank requires funds to internal investment. Established banks require capital to finance their growth, as well as to maintain and modernize operations. The second function of capital is to serve as a cushion to absorb unexpected operating losses. The third function of bank capital bears on the question of adequate capital bank regulators establishes minimum requirements to promote safety and soundness in banking system.³⁰ The capital component is based on evaluation of and provide for future growth. An

²⁹ "Financial Distionary" **The Language of Money** Edna Carew, April 10, 2007.

<<http://www.anz.com/edna/dictionary.asp?action=content&content=capital-adequacy>>

³⁰ Gup and Kolari, *Commercial Banking: The Management of Risk*, 345.

evaluation of capital relies on many factors such as regulatory capital requirements trends portfolio and institutional risk growth, adequacy of risk funds, management capability and other factors as appropriate.

Nepal Rastra Bank has ultimate power of right to decided how much capital is needed for a bank or non bank financed institutions. Adequacy and inadequacy of bank capital directly affects the banking transactions. The adequacy of bank capital is the most important aspect of a bank. If there is inadequacy of capital, the bank should take step for the adequacy of capital as per legal requirement. The bank should remove the inadequacy of bank capital through the medium of collecting of ownership and borrowed capital. If the bank can not maintain the adequate capital, it may give many defects. The defects caused by the bank capital do not lead the bank forwards. So, special attention should be given to capital adequacy system of the bank capital. The adequacy of the bank capital is necessary for the following functions:

For the Payments of all Types of Deposits: Adequacy of bank capital is necessary for a bank, to give the payment of the amount of all types of deposits to its customers. Hence, the adequacy of bank capital is needed to gain trust from its customers.

To Meet the Demand of All Types of Cash Reserve Funds: A bank should deposit the amount in different types of funds, in the Nepal Rastra Bank and in its own bank. The commercial bank should deposit cash in such funds. This is a legal obligation, which is created in two ways. One obligation occurs by the provision of law and another obligation takes place due to circulars, policy and directives issued by the Nepal Rastra Bank. A bank cannot reject both of these obligations. Therefore, there is a need of an adequate bank capital for the deposit of cash in all funds created.

Investment for Banking Transaction and Business: With the lack of an adequate bank capital, the bank can not meet daily administrative expenditure and the investment in different sectors to earn profit. So, to perform the above given functions the bank needs an adequate bank capital. Directly, the above mentioned functions affect to be adequacy of bank capital.

Directing Relating to Capital Adequacy Norms by NRB

A bank capital is divided into Tier I and Tier II for the purpose of capital adequacy measurement. Tier I capital is primary or core capital and Tier II capital is supplementary capital. The total capital that the bank holds is defined as the sum of Tier I and Tier II capital. In Nepalese context, Tier I capital includes paid up capital, share premium, non-redeemable performance share, general reserve, capital adjustment fund, and other free reserve. Tier II capital includes general loan loss provision, exchange fluctuation reserve, assets revaluation reserve, hybrid capital instruments, unsecured subordinated term debt exchange equalization reserve, excess loan loss provision, and investment adjusted reserve. On the basis of risk-weighted assets the banks should maintain the prescribed proportion of minimum capital funds. In 2058/59 the core capital at the levels of 4.5 percent of the risk weighted adder and total capital are at the levels of 9 percent of risk weighted assets of the commercial banks. For the current FY 2006/07, the mandatory levels of core capital and total capital are 6 percent and 12 percent of risk weighted assets of commercial banks.

According to the bank and financial institutional Act, 2063 under section 47, relating to section 31 for “A”, “B”, “C” and “D” classes of bank and financial institution, they should be maintain the paid up capital by doubling for existing capital provision. For commercial banks have minimum paid up capital requirement for national level. All existing operation commercial bank are required to be raise paid up capital until ending Ashad 2070. From the base year

2064/065, they can raise 80% paid up capital increment every year under going licensing process but not permitted, bank should be raise required paid up capital 2000 million until ending Ashadh 2067.³¹

BASEL II Capital Accord

The Basel Committee on Banking Supervision (BCBS) is a committee of banking supervisory authorities that was established by the central bank governors of Group Ten countries in 1975. It consists of senior representatives of bank supervisory and central banks from Belgium, Canada, France, Germany, Italy, Japan, Luxembourg, the Netherlands, Spain, Sweden, Switzerland, the United Kingdom, and the United States. The committee's secretariat is located at the Bank for International Settlement (BIS) in Basel of Switzerland. Basel II is a capital adequacy related standard framed by BASEL. It aims to replace Basel I, which is issued in 1988 with an amendment in 1996, to make the capital framework more risk sensitive. BCBS revised publication of committee's first round of proposals for revising the capital adequacy framework in June 1999, which is popularly known as Basel II. Since then it is revised in January 2001, April 2003, November 2005, and July 2006, new elements have been introduced in this competent only issued comprehensive version of Basel II framework.³² In this accord, it consists of three reinforcing pillars (minimum capital requirement supervisory review process and market discipline), which together are supposed to contribute to safety and soundness in the financial system. The first pillar is more closely with banks actual underlying risks. Like credit risk, operational risk and market risk. In concept, the first pillar is similar to the existing capital framework, in that, it provides a measure of capital relative to risk. The second pillar allows supervisors

³¹NRB, **Circular No. 25/063/64**. (Kathmandu: Banks and Financial Institutions Regulation Department, NRB 2064).

³² **Basel II: Revised International Capital Framework** (Three Free Dictisnory 2006) April 26, 2007.

< <http://www.bis.org/publ/bcbsca.htm> >

to evaluate a banks assessment of its own risks and determine whether that assessment seems reasonable. Supervisors need to ensure that the regulators are adhered to and the internal measurement systems are standardized and validated. The pillar third provides a comprehensive menu of public and regulatory disclosures which ensures safe and sound banking practice.

Basel II implementation originally planned for the end of 2006 is now likely to take place towards the end of 2007. The accord implementation group consists of officers from bank and financial supervision department. AIG has prepared a draft capital adequacy framework with detailed guidelines on each of the three pillars, based on the proposed approach which has been circulated for suggestion and recommendations by the stakeholders. The Basel II framework describes a more comprehensive measure and minimum standard for capital adequacy that national supervisory authorities implemented by 2007. It is probably greatest challenging task as well as opportunity for FIs. It is expected that this capital framework will come into effect by 2007/08.

2.1.5.4.2 Assets Quality (A)

This is one of the most critical factors in determining overall condition of any bank. Primary factors that can be considered are the quality of loan portfolio, mix of risk assets and credit administration system. The assets quality means the capacity of assets to generate income as well as the recover ability of the principal amount.

This component is based on an assessment of both the quality of the current portfolio and the quality of the associated management process that substantially impact the quality of assets. An assessment of assets relies on many factors such as loan portfolio management, investment portfolio trends, risk identification process, and other factors that affect the quality performance, income producing capacity

and stability of assets. Examiner judgment is to the quality of each borrowers and his ability to repay the loan. It is necessary to study the quality of assets to maintain the sound economic condition of the financial institutions. For this purpose, it should be checked up whatever the risk found, which is fixed by the NRB is maintained or not by the commercial banks and FIs. For this provision it helps the FIs to save for losing thee various types of financial risk with the provision of keeping the risk fund according to the quality of the assets as per the rules regulation and policy of the central bank. Loans are usually the largest of the assets items and can also carry the greatest amount of potential risk to the bank's capital account.

Non-Performing Assets / Loan (NPA)

Non-performing loan means an outstanding loan not repaid, i.e. neither payment on interest or principle are made. In case of the banks the loans and advances are the assets as the banks flow loans for the funds generated through shareholders equity ,money deposited by the people and fund having through the borrows . Hence the term NPA means the loans and advances that are not performing well. Thus all the irregular loans can be terms as NPA. Generally, non-performing loans/assets include all loans in the portfolio more than 90 days overdue on interest or principle payments. The definition of NPA differs with countries of the Asia pacific economic cooperation (APEC) forum: loan is classified as non-performing only after it has been in arrear for at least six months. In India, after three months from the date of deemed commercial production to release interest income, any default or reschedule was considered as an NPA on the book of accounts.

Directives Relating to Assets Quality by NRB

NRB classified of loan and advances and provision for loan losses on the basis of its time period.³³

classification of loan	fiscal year 2062/063	loan loss provisions
pass	Loans and advances whose principal amounts are not past due or past due for maximum 3 months only.	1%
sub standard	Loans and advances that are past due for a period of months to 6 months.	25%
doubtful	Loans and advances which are past due for a period of 6 months to 1 year.	50%
loss	All loan and advances which are past due more than 1 year.	100%

Loans are classified as performing and non performing loans. According to NRB directives, performing loan means pass loan, remaining sub standard, doubtful and loss loan is non performing loan. The provision of allowance issued by NRB is 1%, 25%, 50% and 100% for pass sub-standard, doubtful and loss respectively.

2.1.5.4.3 Management Quality (M)

The quality of management is probably the single most important element in the successful operation of a bank. For purpose of this section, management includes both the board of directors and executive officers. Board of director is elected by the shareholders and executive officers who are appointed to their position by the board. It is evaluated by checking the effectiveness of the board of directors, the

³³NRB, Unified Directive Number E.Pra Ni. No. 2/061/62.

quality of the qualification, the manpower and official management operating expenditure customer relationship between the official and institution, management information system, organization and working method, control system, power decision process, policy, rules etc. Sound management is the key to bank performance but is difficult to measure. It is primarily a qualitative factor applicable to individual institutions. As management quality is subjective measure, it is very difficult to prescribe any specific ratings method for this parameter, leaving this parameter open to subjective judgments. The management rating is based on the examiner's perception of the quality of the bank's officers and the efficiency of the management structure. Management is responsible to mobilize the securities of the bank and to create a sound control environment of and risk management practice. Thus this review is focused on appraising the competence. Involvement and integrating of the management in day to day administration of the bank's involvement in formulating, implementation control policies, and insuring the banks compliance with applicable laws and regulations.

2.1.5.4.4 Earnings Quality (E)

This parameter lays importance on how a bank earns its profit. This also explains the sustainability and growth in earnings in the future. Earnings are rated on both recent performance and the historical stability of the earnings stream. The earnings of the banks should able to absent normal and expected losses in given period. It also provides a source of financial support by contributing to the intuition's internal generation of capital.

Earning quality is the ability of a bank to continue to realize strong earnings performance. It is based on an evaluation of the quantity, quality and sustainability of the banks earning performance. An evaluation of earning considers factors, composition and quality of

net income, stability of earnings performance, relationship to portfolio risk and quality of earning management etc.

Earning quality is quite possible for a bank to register impressive profitability ratio and assuming unacceptable degree of risk. Return on assets return on equity, interest spread ratio, gross margin operating profit margin and net profit margin are commonly used profitability indicators.

2.1.5.4.5 Liquidity (L)

Liquidity management is a critical factor influencing the financial health of the banks. It is the extent to which the bank has funds available to meet cash demands for loans and deposit withdrawals. This is an important area of risk facing banks because a liquidity crisis many result in the failure of a solvent bank. Examiners look at the banks funding sources as well as the liquidity of assets in determining the rating.

Banks must be able to manage demand and supply of funds. Cash balance bank, bank balance and investment in government bonds are the most liquid form assets. Optimum liquidity is achieved by balancing risks and returns. In banks liquidity needs to be high enough to meet even unexpected changes in liquidity needs and sources. On other hands, liquidity should not be too high because there is an opportunity cost in the sense of excessive near cash assets that could be earning higher rates of return if funds were invested in other assets. Thus, the bank must trade off the cost of maintaining excessive liquidity and the cost of insufficient liquidity.³⁴

Banks are also concerned about the danger of not having sufficient cash and borrowing capacity to meet deposit withdrawals loan demand and other cash need. Liquidity risk is danger of having insufficient cash to meet a bank's obligation when due. It affect the

³⁴ Gup and Kolari, *Commercial Banking: The Management of Risk*, 329.

health of commercial bank adversely affects the profitability of financial institutions. NRB directive (2062B.S) number E.Pra.Ni. 05/061/062 requires the banks to classify the assets and liquidity on the basis of maturity period classification different time interval for liquidity risk minimize.

NRB Directives Related to Liquidity

According to NRB, every commercial bank has maintained minimum balance of cash reserve ratio 5% of their total deposit liabilities compulsory.³⁵ Under sub-section (1) they should be bears the following penalty for not sufficient of minimum requirement balance.

- a) First time insufficient balance is exiting interest rate
- b) For second times of under balance is double interest rate
- c) For third times of under balance is triple interest rate

2.1.5.4.6 Sensitivity to Market Risk (S)

Market risk is the current and potential risk to earnings and stockholders equity resulting form adverse movements in market rates or prices. The three areas of market risk are interest rate risk, foreign exchange risk and commodity or equity price risk. For most FIs, market risk primarily reflects exposing to changes in interest rates. The sensitivity to market risk components focuses on an institution's ability to identify, monitor, manage and control its market risk and provides FIs management with a clear and focused indication of supervisory concerns in this area.

Market risk is the current and potential risk to earnings and stockholders equity resulting form adverse movements in market rates or price. The sensitivity to market risk is assessed to determine the bank's ability to monitor and manage its exposure to market risk; it reflects the degree to which changes in the interest rates, foreign

³⁵ NRB, Unified Directive Number E.Pra Ni. No. 13/061/62 .

exchange rates and equity prices can adversely affect a bank's earnings and capital. For most FIs market risk primarily reflects exposing to changes in interest rates. The sensitivity to market risk components focuses on an institution's ability to identify, monitor, manage and controls market risk and provides FIs management with a clear and focused indication of supervisory concern in this area.

Equity prices risk examines how changes in market prices, interest rates and foreign exchange rates affect the market values of any equities, fixed income securities, foreign exchange currency holdings, and associated derivative and other off-balance sheet contracts. Foreign exchange risk arises from changes in foreign exchange rates that affect the values of assets liabilities and off-balance sheet activities denominated in currencies different from the banks domestic currency.

Interest rate risk analysis compares the sensitivity of interest income to change in assets yields with the sensitivity of interest expense to changes in the interest cost of liabilities.

Dollar gap, duration gap and simulation are three techniques of measuring interest rate risk.³⁶ The dollar gap is the oldest technique. The most commonly used measure of the interest sensitivity position of a financial institution is duration gap analysis. Duration is defined as the elasticity measure that indicates the relative price sensitivity of different securities.³⁷ The duration gap is the difference between the duration of a banks assets and liabilities. It helps to explain how changed in interest rates affect the market value of a bank assets and liabilities. Thus, the focus of gap analysis is on net interest income or net worth the number of years of the duration of assets and liabilities. Net worth = assets-liabilities.

³⁶ Gup and Kolari, *Commercial Banking: The Management of Risk*, 322.

³⁷ Koch and Macdonald, *Bank Management*, 124.

If duration gap is positive lie, the duration of assets exceeds the duration of liabilities then increases in interest rates will reduce the value of net worth and decrease in interest rates will increase the value of net worth. Conversely the duration gap is negative with the duration of asset less than the duration of liabilities, raising interest rate will increase the value of net worth, whereas falling interest rates will lead to a reduction in it.

An aggressive interest rate risk management strategy would alter the duration gap in anticipation of changes in interest rates. If interest rates were expected to increase management would want to shift from positive to a negative gap position. It could do this by reducing the duration of asses or increasing the duration of liabilities.

Simulation analysis determines the effect of interest rate changes on short-term net interest income net income. It also measure risk presented by non-parallel yield curve shift. Simulation models are often not “user friendly” and may require more data and expertise than other interest rate risk measurement system.

According to NRB directive every commercial bank should classified of risk and provision for minimizes the risk.³⁸ There are liquidity, interest rate, foreign exchange, loan and investment risk to monitoring on related of banking and financial institutional risk.

2.1.5.5. CAMEL plus Corporate Governance

After following economic liberalization policy since mid 1980s, the establishment of joint stock Company in Nepal has been speed up. Competition in the banking sector is being more intense. Banks are required to compare in the domestic market as also in the international market in the context of liberalization and globalization. Adoption of

³⁸ NRB, Unified Directive Number E.Pra Ni. No. 13/061/62 .

corporate governance practices assumes greater importance in this context. A corporate governance system is expected to provide protection to shareholders and creditors and to assure them of getting return on their investment.

Corporate governance is defined as a set of rules and the relationships between a company's management and its board of director's shareholders and other stakeholders.

These rules help setup mechanisms of attaining good governance.³⁹ Globalization and liberalization policies also play a decisive role increasing the demand for good governance. Effective corporate governance may be described as reconciliation between the power and obligations of the board of directors to ensure good performance awareness of the rights and duties of stakeholders and the expectation of the society. Good corporate governance feature such as transparency, accountability, information disclosures, and stringent ethics. It helps ensure the business corporations undertake their operations to maximize shareholders value, which will eventually bring benefits to other stakeholders from a long term perspective. The poor governance practices including inadequate disclosures, lack of independent over right directors and weak minority shareholders tend to discourage investment and weaken incentives for efficient management. Good corporate governance will enhance the companies image .It helps to introduced good practice in corporate behavior with a view to rebuilding and maintaining public trust in company.

In Nepalese banking industry, lack of proper corporate governance, we had also faced lots of problem and loss of public faith on banking system in past days. But we can see a ray of hope with the

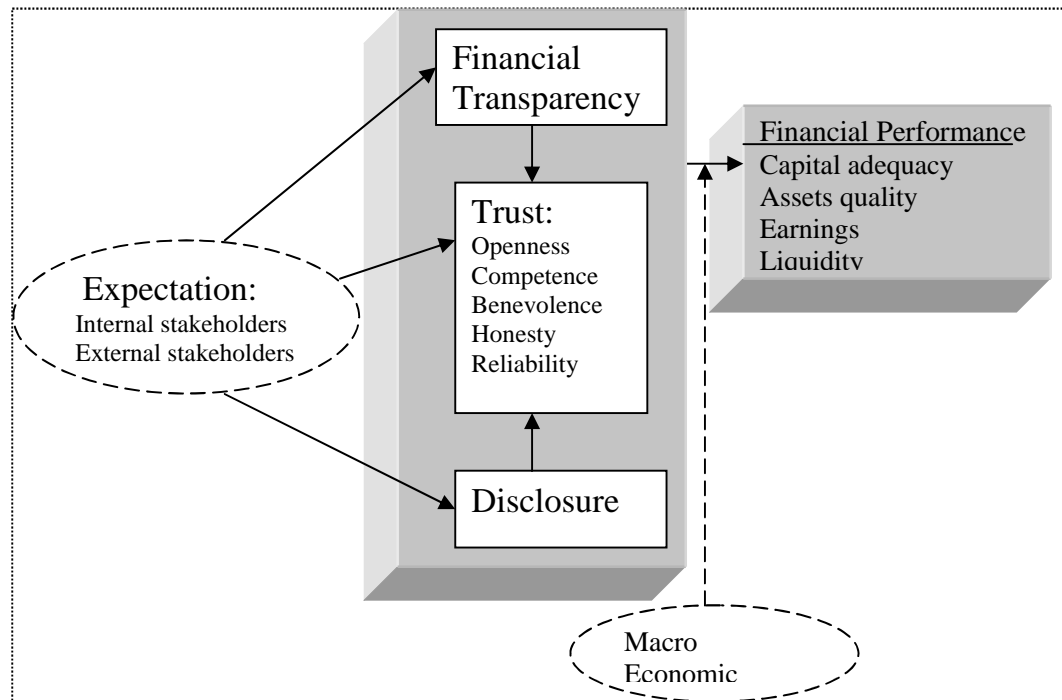
³⁹ Bishwa Keshar Maskey , **DOES CORPORATE GOVERNANCE AFFECT PRODUCTIVITY ? EVIDEBCE FROM NEPAL** (Center for Development and Governance Nepal) April 20, 2007.
<<http://72.14.253.104/search?q=cache:OZeJ1cNAJ:www.apo-tokyo.org/00e-books/IS-05corp.GovAsia/o8+Nepal.CorpGov.Asia.pdf+corporate+governance+in+Nepal&hl=en&ct=Clnk&cd=1&gl=np&client=firefor-a>>

stringent supervision system adoption by NRB on banking supervision with the implementation of Basel II framework recommended by Basel Committee of Banking Supervision (BCBS). Basel II framework has recommended various suggestions policies to address corporate governance in banking institution would be the great help for the commercial banks operation in Nepal. Effective corporate governance practices are essential to achieving and maintaining public truth and confidence in the banking system. Poor corporate governance can lead market to loose confidence in the ability of a bank to properly manage its assets and liability, including deposits with could in turn liquidity crises.

To understand corporate governance and financial Performance variables in relation to commercial banks, the major corporate governance pillars i.e. financial transparency, discloser and trust are dissected.⁴⁰ Financial performance especially relating to commercial banks is also reviewed based in the performance dimensions comprising capital adequacy, assets quality, earnings and liquidity. The significance of stakeholders in commercial banks is also highlighter.

⁴⁰ Matana Rogers, "Corporate Governance and Financial Performance of Selected Commercial Banks in Uganda" **Introduction to Financial Accounting 2005**, July 20, 2007.
< <http://www.crrconference.org/downloads/2006rogers.pdf> >

Corporate Governance and financial performance conceptual Framework



Numerous stakeholders (internal and external) exist in any business enterprises some of these include; customers, stakeholders, government among others. Internal stakeholders such as the employees and external stakeholders like stakeholders, customers, tax authorities and bank supervisors. Transparency, disclosure and trust, which constitute the integral part of corporate governance, can provide pressure for improved financial performance. Macro economic variables through factors such as inflation and changes in interest rates may either enhance or distress commercial banks financial performance. Awareness of the importance of corporate governance is growing. The NRB has introduced higher corporate governance standards for banks and other financial companies as part of a wider program of financial sector reform. Effective control system and strong corporate governance are the basic foundation of a sound and stable bank. Realizing the importance of this facet NRB has issued a directive on corporate of director and employees.

Basic Principle of Corporate Governance in Banking Organization

There are major 8 principles formulated and evolved by BCBS for enhancing corporate governance of banking institutions. These principles if practiced honestly, banking institution could be run very efficiently and effectively with controlled management resulting good financial health of the organization practicing of these principles is very much essential for the banking industry of the developing countries like Nepal. These principles have briefly discussed below in the Nepalese perspectives.

Principle1: Board members should be qualified of their positions, have a clear understanding of their positions.

In most of the banking and financial institutions of Nepal it has been observed that the board of directors have been nominated according to their share investment in the banks where their qualification and understanding capabilities about the core functions of the bank have been almost neglected. The minimum qualification for being member of the board of directors has been raise as one of the important principles requirement for a bank and financial institution.

Principle 2: The board of directors should approve and oversee the banks strategic objectives and corporate values that are communicated throughout the banking organization.

Generally, board of directors without mark accepts the policies and strategic objectives of the bank recommended by the employees or the consultant. But formulation of the strategic objectives and the corporate values of a bank is the main task of the board of directors. Where ensuring full implementation of such formulated policies is another must important to oversee by the board of directors.

Principle 3: The board of directors should set and enforce clear lines of responsibility and accountability through the organization.

It is third principle the board of directors must set and enforce the lines of responsibility and accountability of the each part of the

banking organization including individual element of the functioning team and departments. Performance of the task according to the set responsibility has to be measured and accountably rewarded and punished for the good and bad doings respectively. So, that a clear understanding of the responsibility and their accountability is communicated throughout the banking organization.

Principle 4: The board should ensure that there is appropriate oversight by senior management consistent with board police.

It is another principle of corporate governance that the board of directors must have proper and effective review process and controlling mechanism that the senior management is working according to the policy set by the board all the time.

Principle 5: The board and senior management should effectively utilize the work conducted by the internal audit function, external auditors and internal control functions.

The board of directors and the senior management of bank should study deeply the report submitted by the internal auditors, external auditor's regulators instructions and utilize their recommendations and should be committed to follow.

Principle 6: The bank should be governed in a transparent manner.

Transparency is the most important principle of the corporate governance that all the discloser of a bank is published transparently and operation of the bank is conducted in transparent manner. It is different for shareholders, other stakeholders and the market participates to effectively monitor and properly hold accountable the board of directors and the senior management when there is lack of transparency.

Principle 7: The board should ensure that compensation policies and practices are consistent with the bank's corporate culture, Long term objectives and strategy and control environment.

Compensation and remuneration to the board of directors and the senior management of the bank should be controlled and regulated by the appropriate policy and accordingly practiced throughout the banking organization. Executive or non executive board of directors should not take any compensation of remuneration deviating to the norms of the policy set out and they should very much conscious for such compensation to be taken by other senior managers. This commitment and compliance is must important for the enhancement of the better corporate governance of a banking organization.

Principle 8: The board and senior management should understand the bank's operational structure including where the bank operates in jurisdictions.

Banks may choose to operate in a particulars jurisdiction or may establish complex structures often for legitimate and appropriate business purpose. However, operating in such jurisdiction may pose financial, legal and reputation risks to the banking organization. Clear understanding of such possible risk by the board of directors and the senior management is very much important for the effective corporate governance in a banking institution.

Hence, for enhancement of the corporate governance in banking organization above 8 basic principles formulated and recommended by the Basel committee for banking supervision could be a great help especially in the context of Nepalese culture of managing banking organization.

2.2 Research Review

This section contains the review of different research works are carried out by different scholars within the different countries including dissertations by Nepalese scholars, which is related with financial performance analysis of commercial bank.

2.2.1 Review of Articles

This section deals with the review of relevant studies and research articles. To review the previous studies and articles are available in internet. It has become to the most easily accessible medium to gain information in subject matter. The review of relevant articles publishes in different journals which are available in concerned web sites.

Several academic studies have examined whether and to what extent private supervisory information is useful in the supervisory monitoring of banks. Earlier studies such as sinkey, altman, Martin, Avery and Hanweek and Barthetal respectively 1975, 1977, 1997, 1984, and 1985 analyzed the financial characteristics of banks and of savings and loans associations.

Accordingly, these studies adopt more or less the same variables, based on the five categories of capital adequacy, asset quality, management, earnings quality (CAMEL) that are used by the regulators for the evaluation Process.

Hirtle and Lopez have conducted a research on supervisory information and the frequency of bank examinations at Federal Reserve Bank of Newyork in 1991.⁴¹ They examined the usefulness of past CAMEL ratings in assessing banks current conditions. They find that conditional on current public information, the private supervisory

⁴¹ B.J Hirtle and J.A. Lopez., **Supervisory Information and the Frequency of Bank Examination.** (Federal Reserve Bank of New York, Economic Review 5, pp.1-)-20 April , 2007.
< <http://www.frbsf.org/econsrch/wklyltr/wklyltr99/e199-19.html> >

information contained in past CAMEL ratings provide further insight into bank current conditions as summarized by current CAMEL ratings. They also find that over the period from 1989 to 1995, the private supervisory information gathered during the last on-site exam remains useful with respect to the current condition of a bank for up to 6 to 12 quarters (or 1.5 to 3 years). The overall conclusion drawn from academic studies is that private supervisory information as summarized by CAMEL ratings, is clearly useful in the supervisory monitoring of bank conditions.

Kolari, Glennon, Shin and Caputo have presented their work paper to the predicting large U.S. Commercial bank failure in January 2000.⁴² They apply empirical method to the problem of predicting bank. Because of the sampling limitations scant research has examined the feasibility of using computer based early warning system (EWSs) to make such predictions. In the late 1980s and early 1990s numerous large banks failed in the United States, enabling us to collect a sample of 50 failed banks with more than \$250 million in assets as well as a matched sampled of 50 non-failed large banks. These samples were split into original and holdout samples of different sizes. Both the parametric method of logit analysis and the non parametric approach of trait recognition are employed to i) develop classification EWS models based on the original samples and ii) test the predictive ability of these models using the holdout samples. Both logit and trait recognition out performed logit in a variety of test. However, over the holdout samples, trait recognition performed logit in a variety of test, including overall accuracy, large bank failure accuracy, weighted

⁴² James Kolari, Dennis Glennon, Hwan Shin and Michel Coputo, "Predicting Large US Commercial Bank Failures" **Economic and Policy Analysis** (Working Paper 2000-1) May 1, 2007. < <http://www.octreas.gov/ftp/workpaper/wp2000-1.pdf>. >

efficiency scores and stability using data from one year before as well as two years before failures. Other results from the trait recognition models reveal that complex two and three variable interactions between financial and accounting variables contain additional information about bank risk not found in the individual variables themselves. They conclude that non parametric EWSs can provide information about the future viability of large banks.

Sahajwala and Vanden Berch based their work paper on Basel Committee on Banking Supervision in 2000.⁴³ They study a number of new banks monitoring systems currently in use or under development in various G10 countries such systems are collectively termed “supervisory risk assessment and warning systems”. The objective of the paper was to provide an overview of the different approaches taken by bank supervision and to make a preliminary general assessment of the methods that are being used or developed. The study reveals that supervisory authorities are now clearly moving towards putting in place more formed structured and risk focused procedures. For ongoing banking supervision individual approaches and systems have been developed and adopted typically in the 1990s, with a greater focus on risk profiles and risk management capabilities of individual banking institutions and on the generation of timely warning of potential changes to a banks’ financial position. These new and modified systems have contributed positively to the supervisory process, and supervisors are working towards refining the systems further in order to improve the system accuracy and predictive power.

Gilbert Neyer and Vaughan prepared working paper to the role of a CAMEL downgrade model in bank surveillance at Federal

⁴³ Sajana Sahajwala and Poul Vanden Berch , “Supervisory Risk Assessment and Early Warning Systems.” **Basel Committee on Banking Supervision** ,(Working Paper)May 1, 2007.
< <http://www.bis.org/publ/bcbs-wp4.pdf> >

Reserve Bank of St. Louis in 2000.⁴⁴ This article examines the potential contribution to bank supervision of a model designed to predict which banks will have their supervisory ratings downgraded in future periods. Bank supervision relies on various tools of off-site surveillance to track the condition of banks under their jurisdiction between on-site examination including econometric models one of the models that the federal reserve system uses for surveillance was estimated to predict bank failures. Because bank failures have been so rare during the last decade, the coefficients on this model have been “frozen” since 1991. Each quarter the surveillance staff at the board of governors provides the supervision staff in the Reserve Banks the probabilities of failure by the banks subject to fed supervision, based on the coefficient of this bank failure model and the latest call report data for each bank. The number of banks downgraded to problem status in recent years has been substantially larger than the number of bank failures. During a period of few bank failures, the relevance of this bank failure model for surveillance depends to some extent on the accuracy of the model in predicting which banks will have their supervisory ratings downgraded to problem status in future periods. This paper compares the ability of two models to predict downgraded of supervisory ratings problem status the board staff model, which was estimated to predict bank failures, and a model estimated to predict downgrades of supervisory ratings. They find that both models do about as well in predicting downgrades of supervisory ratings for the early 1990s. They empirically compare the predictive ability of the Federal Reserve board’s system to estimate examination rating (SEER). Failure prediction model with a model they develop to predict downgrades in bank condition from CAMELS ratings 1 or 2 to ratings

⁴⁴ R. Alton Gilbert, Andrew p. Meyer and Mark D. Vaughan, **The Role of a CAMELS Downgrade Model in Bank Sureillance**. April, 04, 2007.
< [http:// research. Stlowisfed.org/wp/2000-021.pdf](http://research.stlouisfed.org/wp/2000-021.pdf)>

3, 4, or 5. They conclude that the downgrade model may prove to be a useful supplement to the board model for estimating failures during periods when most banks are healthy but that the downgrade model should not be considered a replacement for the current surveillance framework.

Dziobek, Hobbs and Marston develop a framework for assessing the adequacy of managements for market liquidity in 2000⁴⁵. The components of a balanced liquidity infrastructure are largely institutional in nature including the existence of legal contract rights and information disclosure. Prevailing monetary arrangements, design aspects of central bank instruments and arrangements, for payments and money market operations also bear directly on banks ability to manage short term liquidity. For instance, high transactions costs resulting from rigid instrument design and trading rules can discourage trades and contribute to price volatility. Foreign exchange regulations such as capital controls and prudential controls on open foreign currency positions can effects access to foreign currency, liquidity. For example, overly tight limits on net positions in foreign exchange can constrain banks ability to manage liquidity through currency conversion. Restriction on the use of currency derivatives also limits the incentive for developing hedging mechanisms that can improve management of liquidity and other types of risks.

A. Cole and W. Gunther have prepared paper on predicting bank failure through comparison of on and off-site monitoring system in 2004.⁴⁶ They find on site examination re regulators primary tools for

⁴⁵ Dziobek Claudia, J. Kim Hobbs and David Marston, 2000, **Toward a Framework for Systematic Liquidity Policy** (IMF Working Paper 00/34/Washington: International Monetary Fund). July 1, 2007.

< <http://72.14.253.104/search?q=cache:qusOrO2if8J:www.internationalmonetaryfund.com/external/np/mae/fsi/2001/eng/bkg.pdf+Dziobek,Hobbs,+and+Marston&hl=en&ct=clnk&cd=5&gl=np&client=firefox-a> >

⁴⁶ Rebel A Cole and Jeffery w. Gunther, **A Comparison of on and Off Site Monitoring System**. (Volume 13) July, 04, 2007.

< <http://www.springerlink.com/content/?Mode=allwords&k=CAMELS+analysis+of+bank&sortorder=asc&p=720d3859c5064b5> >

monitoring the financial condition of federally insured depository institutions. In this paper they assess the speed with which the information content of the supervisory rating assigned during bank exams the CAMEL Rating-decays. This is an important issue because cost and regulatory burden considerations often cause CAMEL rating to be assigned relatively infrequently. As a benchmark for information content they use econometric forecasts of bank failures generated by applying a probit model to publicly available accounting data. When compared with all CAMEL ratings available at a given point in time, the econometric forecast provide a more accurate indication of failure. Further analysis reveals that this overall finding reflects the tendency for a CAMEL ratings information content of deteriorate noticeable beginning in the second and third quarter after the rating initially was assigned.

Gordon-Hart has conducted a research work on Basel II, the risk to the global consensus in 2004.⁴⁷ Basel II has been the subject of intense debate amongst bankers around the world, it will replace the original Basel accord of 1988, but unlike the latter it looks as if the new accord will undermine the global consensus. It is a costly exercise and the heightened risk of regulatory arbitrage may yet distort the competitive landscape. In particular, the completely different ways in which Basel II will be implementing in the USA and EU post a change for institutions that operate on a global scale. This article is a brief examination of the key difference and challenges posed by the draft accord the prospects for a final draft being truly final seems remote and Basel III may well have to be on the agenda before the ink is dry on Basel II.

⁴⁷ Shreenagh Gordon-Hart, **Basel 2: The Risk to the Global Consensus** (Volume 12 pp 22-26) July 4, 2007.
< http://www.emeraldinsight.com/Insight/view_content_servlent?file_name=published/Emerald_Full_Text_Article/Articles/2650120104.html>

Derviz and Podpiera prepared paper on predicting Bank CAMEL and S&P Ratings at Czech Republic in 2005.⁴⁸ They investigate the determinants of the movements in the long term standards and poor and CAMELS bank ratings in the Czech Republic during the period when the three biggest banks representing approximately 60% of the Czech banking sectors total asserts. Were privatized (i.e. the time span 1998-2001). The same list of explanatory variables corresponding to the CAMELS rating inputs employed by the Czech National banks, banking sector regulators was examined for both ratings in order to select significant predictors among them. They employed an ordered response logit model to analyze the monthly long run S&P ratings and panel data framework for the analysis of the quarterly CAMEL rating. The predictors for which they found significant explanatory power are capital adequacy, credit spread, the ratio of total loans to total assets and the total value at risk. Models based on these predictors exhibited a predictive accuracy of 70%. Additionally, we found that the verified variables satisfactory predict the S&P rating on month ahead.

Baral has conducted a research on health check-up of commercial banks in the framework of CAMEL at joint venture banks in Nepal in December 2005.⁴⁹ He used the annual reports data set of joint venture banks and NRB supervision reports published his paper abstract in the journal of Nepalese business studies. The paper examined the financial health of joint venture banks in the CAMEL framework for a period ranging from 2001 to fiscal year 2002. The

⁴⁸ Alexis. Darviz and Ziri Podpiera, **Predicting Bank CAMELS and S&P Ratings: The Case of the Czech Republic** May 10, 2007.

< <http://lists.repec.org/pipermail/nep-dcm/2005-April/000219.html> >

⁴⁹ Keshar J. Baral, "Health Check-up Commercial Banks in the Framework of CAMEL: A Case Study of Joint Venture Banks in Nepal." **Journal of Nepalese Business Studies**, Vol 2. No.1 (Dec, 2005).

basis of publicly available financing health of joint venture banks is better than that the other commercial banks.

Rijal has conducted a paper to examine the application of management control system in Nepalese commercial banks in 2006.⁵⁰ The Nepalese commercial banking sector is very competitive. The commercial banks are competing mainly in service and may of them adapting differentiation of commercial bank is customer retention. Commercial banks are encouraging employees to upgrade their knowledge and skill. The working environment is also congenial in Nepalese commercial banks and the informal organization and communication system also gradually exist in some of the commercial banks of Nepal. However, the future research needs to examine the relationship between management control system and effectiveness of the commercial banks of Nepal.

2.2.2 Review of Dissertation

Previous several dissertation works have been conducted by various researchers regarding different aspects of commercial banks such as financial performance, capital structure, investment policy, non-interest.

Some of them has presented as follows:

Bohara has done a study on financial performance of Nepal Arab Bank Ltd. (NABIL) in 1992.⁵¹ The basic objectives of the study were to highlight on the functions and policies of joint ventures banks and to evaluate the comparatives financial performance of NABIL, and NIBL. The study has covered five fiscal years 1986/87 through 1990/91. In this study financial tools along with statistical tools have

⁵⁰ Saroj Rijal, "Application of Management Control System of Nepalese Commercial Bank" **The Journal of Nepalese Business Studies**, Vol. III, No. 1 (Jan ,2005) April 10,2009. < <http://Journals.Sfu.ca/Nepal/index/php/JNBS/article/viewfile/486/473> >

⁵¹ Bhoj Raj Bohora, "A Comparative Study of the Financial Performance of Nepal Arab Bank Ltd. and Indusuz Bank Ltd." (Master diss., Tribhuwan University, 1992).

been used. Different ratio liquidity activity, coverage, leverage, profitability and other indicators like earnings per share, dividend per share, market value to book value ratio, has been used to evaluate the performance of NABIL and NIBL. The study has covered the five fiscal years 1986/87 through 1990/91. In this study financial tolls have been used different ratio liquidity activity, coverage leverage profitability and other indicators like earnings per share, dividend per share, market value to book value ratio has been used to evaluate the performance of NABIL and NIBL. In statistical tools the least square method has been employed. The researcher has on the basis of different financial indicators, concluded that performance of NABIL is better than of NIBL. The researcher further concluded that bank performance can not be judged solely in tem of profit as it may have earned profit by maintaining adequate liquidity and safety position. The researcher has recommended to NIBL to extend their banking facilities even in the rural areas by opening up branches besides the improvement in maintaining the adequate capital structure by increasing equity base.

Gurung conducted a researcher on a financial study of joint venture banks in Nepal in 1995.⁵² The objective of this study was to examine the financial strengths and weaknesses of Nepal Grindlays Bank Ltd. (NGBL) and Nepal Indosuez Bank Ltd. (NIBL). The study has covered the period of seven fiscal years i.e. 1986/87 through 1992/93. In this study, he has used financial ratios viz. current, activity, profitability, capital structure and statistical tool viz. Karl Pearson's coefficient. The researchers have on the basis of different financial indicators; found that that performance of NGBL is better than that of NLBL.

Regmi conducted on a study of comparative evaluation on the financial performance of joint venture bank s in Nepal in 1997. The

⁵² Vikram C. Gurung, "A Financial Study of Joint Venture Banks in Nepal." (Master diss., Tribhuwan University, 1995).

main objective of this study is to examine and evaluate the financial performance of Nepal Arab Bank Ltd (NABL), Nepal Indosuez Bank Ltd (NIBL) and Nepal Grindlays Bank Ltd (NGBL). The study which is descriptive is conducted using each of the last seven years. In this study is using ratio to help summarize a large quantity of financial data. It was seen that the joint venture banks are able to maintain a positive return throughout these seven years. Performance of NIBL is better in terms of return on deposits, return on net worth, and return on assets. The liquidity position of NGBL is very low as compared to the other two banks. It requires using more of loans and advances from customers' deposits. The capital structures of three joint venture banks are highly leveraged, indicating an extensive use of debt financing.⁵³

Thapa has conducted her study on a comparative study on investment policy of Nepal Bangladesh Bank Ltd. and other joint venture banks in 2001.⁵⁴ The researcher's main objectives of study was to evaluate liquidity, assets management efficiency, profitability and risk position of NBBL in comparisons NABIL and NGBL and to examine the fund mobilization and investment policy of NBBL through off-balance sheet and on-balance sheet activities in comparison to other two banks. Through research the researcher found that the liquidity position of NBBL is comparatively not better than of NABIL and NGBL. The liquidity ratios are moderately fluctuating which means the bank has not properly formulated stable policy. As per the study NBBL is not in better position regarding its on-balance sheet as well as off-balance sheet activities in compare to NABIL and NGBL and it does not seem to follow any definite policy regarding the management of its assets. The researcher at the last suggested

⁵³ Shreedhar Raj Regmi, "Joint Venture Banks in Nepal: Comparative Evaluation of the Financial Performance of NABIL, NIBL and NGBL." (Master diss, Assumption University, Bangkok, 1997).
< <http://www.Journal.au.edu/au-thesis/thesis-bus2.html> >

⁵⁴ Shamiksha Thapa, "A Comparative Study on the Financial Performance of Nepal Arab Bank Ltd." (Master diss. Tribhuwan University, 2000).

following a specific policy in investment and she further recommended to maintain the optimum level of relationship among deposit and loan and advances, outside assets and net profit and to maintain the adequate recovery rate.

Deoja has conducted study entities on a comparative study of the financial performance between state bank of India limited and Nepal Bank Ltd in 2001.⁵⁵ The researcher's main objective of the study was to evaluate the trend of deposits and loan and advances of NSBIL and NBBL and to evaluate the liquidity, profitability, capital structure, turnover and capital adequacy position of NSBIL and NBBL. Through research found that the cash and bank balance to current assets, saving deposit to total deposit etc. of NSBIL are higher while fixed deposit to total deposits, loans and advances to current assets of NBBL are higher and NBBL has better turnover than NSBIL in terms of loan and advances to total deposits ratio and loan and advances to fixed deposit ratio. Through the study of the different ratio has concluded that both banks are highly leveraged.

Bhandari used descriptive analysis in his research work of evaluating financial performance of Himalayan bank in the framework of CAMEL during 1999 to year 2004 A.D.⁵⁶ This analysis revealed adequate capital of the bank. The non performing loan though in decreasing trend is still a matter of concern. The bank is still with better ROE however it is in decreasing trend. The decreasing trend of net interest margin shows management slack monitoring over the bank's earning assets. The liquid funds to total deposits ratio is above the industrial average ratio. NRB balance and cash in vault to total deposit ratios are below the industrial average ratio during the study period.

⁵⁵ S. Deoja, "A Comparative Study of the Financial Performance Between Nepal State Bank of India Ltd. and Nepal Bangladesh Bank Ltd. (Master diss., Tribhuvan University, 2001).

⁵⁶ Krishna Ram Bhandari, "Financial Performance of Himalayan Bank Ltd in the Framework of CAMEL" (Master diss., Tribhuvan University, 2006).

Chand has attempts to evaluate financial performance analysis of CAMELS framework at NABIL bank Ltd in 2006.⁵⁷ This study has covered the period of several fiscal years i.e. 2000/001 through 2004/05 A.D using descriptive cum analytical research approach.. The researcher has found that the bank is running with adequate capital and the capital fund of the bank is sound and sufficient to meet the bank operation as per NRB standard. The decreasing trend of non-performing loans and advances ratio helps to conclude that the bank is aware of non-performing loans. Bank is managed and operating efficiently. The bank's ROE, ROA is in continuous increasing trend. The net interest margin is tin also increasing trend. He also finds that the liquid assets to total deposits ratio is above the industrial average ratio except in the initial period. NRB balance and cash in vault is to deposit ratios are below the industrial average ratio during the study period. Interest rate change has no effect on them because the bank has able to match the risk sensitive assets for risk sensitive liabilities in long term maturity bucket.

Sharma conducted a research on financial performance Analysis of Nepal SBI Ltd in the framework CAMEL in during 2001 to 2006A.D.⁵⁸ The basic objective of the study was to analyze the financial performance of Nepal SBI banks Ltd through CAMEL framework. The major findings of this study are; the risk based capital adequacy ratio maintained the adequate fund except in the 2001 and 2005 of the study period. It was found that the core capital ratio of the bank is above the NRB standard during the period of past six years. The supplementary capital ratio of the bank showed that NSBL has met the requirement as provision for substandard loan as prescribed by NRB. The NSBL has decreasing expenses employee of NSBL is quite

⁵⁷ Digendra Chanda, , "Financial Performance of NABIL Bank Ltd in the Framework of CAMELS" (Master diss. Tribhuwan University, 2006).

⁵⁸ Sontosh Raj Shrama , " Financial Performance Analysis of Nepal SBI Bank Ltd . in the Framework of CAMEL" (Master diss. Tribhuwan University, 2007).

high through the number of staffs is relatively less. NRB balance and cash in vault to total deposit ratio maintained of bank revealed that the bank has maintained an optimum level of NRB balance.

Gurung carried out the research study entitled financial performance analysis of Annapurna Finance Company Ltd (AFCL) in the framework of CAMEL.⁵⁹ This study was based on secondary data covering the period five years from FY 2058/059 to FY2062/063 B.S. The researcher concluded that AFCL was well capitalized and complying with the directives to NRB. The finance company has maintained satisfactory level of past due loan to total loan. Earning per employees of the bank was found quite high, NIM is also increasing trend. Further more, the liquidity position of the finance company was also sound.

Koirala performed a study on diagnosis of financial health of Nepal Investment bank ltd in the framework of CAMELS.⁶⁰ She has used secondary data for the period of six years from 2001 to 2006. The study revealed that adequate capital of the bank. The non-performing loan ratio decreasing trend it can conclude that bank is aware of quality of assets. The management proxy ratios the expenses to total revenue and earning per employees were favorable to the bank. The ROE, ROE and EPE ratio is increasing trend. The liquid funds to total deposit ratio is above the industry average but NRB balance to total deposit ratio and cash in vault to total deposit were below the industry average during the study period .The sensitive of net financial assets is a short term maturity bucket is highly sensitive to interest change risk and long term maturity bucket vice-versa.

Although, previous researchers have been carried out regarding financial performance analysis of commercial banks in the CAMEL

⁵⁹ SamJhana Gurung, , “ Financial Performance Analysis of Annapurna Finance Ltd . in the Framework of CAMEL” (Master diss. Tribhuwan University, 2007).

⁶⁰ Srijana Koirala , “Diagnosis of Financial Health of Nepal Investment Bank Ltd in the Framework of CAMEL” (Master diss. Tribhuwan University, 2007).

and CAMELS framework, no body researchers do not have try to attempt to conduct on financial performance of all joint venture commercial banks in Nepal framework of CAMELS ratings on comparative analysis. This study is first to reflect to analyze the financial performance of all joint venture banks in the framework of CAMELS ratings.

CHAPTER III

RESEARCH METHODOLOGY

This chapter is concerned with the procedures and techniques used in the objectives of the study. It includes research design, population and sample, nature and sources of data, methods of data collection, data analysis, tools and limitations of methodology.

3.1 Research Design

This study is based on descriptive cum analytical research approach to achieve the desired objectives. This study examines and evaluates of performance of joint venture banks in the framework of CAMELS. Financial ratios are applied to examine facts and descriptive techniques are adopted to evaluate financial performance of joint venture banks.

3.2 Population and Sample

There are 26 commercial banks in operation by the end of Ashadh 2066. Out of this 3 are public and 23 are private banks. Among these private bank, 6 are joint venture banks. For the purpose of this study, those joint venture banks are taken as the population which has completed their six years operation by the end of fiscal year 2006/07. From the population 4 commercial banks were sampled randomly. This represents 66.67% of the population. Simple random sampling method was used to select sample banks. The sampling frame is closely related to population. It is given in Appendix 1.

3.3 Nature and Sources of Data

This study is fully based on the secondary data. Therefore, the main sources of data are historical data disclosed by published reports of commercial bank especially annual report of sample banks. The regulatory data were collected form NRB directives and reports. The basic conceptual information was collected through BASEL, FDIC and NRB publications and working papers which are available in website. The major sources of data used in this study are:

- NRB Reports and Bulletins, and its' website.
- Various articles published in journals and financial magazine;
- Basel committee publications through its official website;
- Nepal Stock Exchange Reports;
- Research paper and dissertations of website of the sample bank in addition supportive qualitative information was collected by formal and informal discussions with the senior staff of the banks.

3.4 Data Collection Procedure

The required data of this study is entirely based on the historical data disclosed in annual reports. NRB publications were downloaded the website of NRB. Relevant information and annual report of respective commercial banks have been obtained from the Pokhara branch and website of the bank. Conceptual review and research review has been through related text books. Reviews of working paper written by various international scholars were downloaded from the related websites respectively. Related text books are available in Regional Library Pokhara, Central Library P.U., Public Library Pokhara, NRB publication, different Journals, Magazines and other published and unpublished reports help to research more convenient.

3.5 Data Processing

At first relevant data were extracted from above mentioned sources and recorded in the master sheet. The data were then entered into the spreadsheet to work out. The financial ratios were worked out with the help of applicable software such as Microsoft Word, Microsoft Excel. In addition tables were generated with the help of Microsoft Excel.

3.6 Data Analysis Tools

Financial ratios in the framework of CAMELS have been used to analyze the financial performance of joint venture banks. The relevant ratios used in this study are given in ensuring part of this section.

3.6.1. Capital Adequacy

Total Capital Ratio (TCR): Total capital is the sum of Tier I core capital and Tier II supplementary capital. Capital ratio used to measure of capital in the banks. It is determined by the following model.

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

Where,

$$\text{Total Capital Fund} = \text{Core Capital} + \text{Supplementary Capital}$$

$$\text{Total Risk weighted Assets} = \text{On-Balance Sheet Risk Assets} \\ + \text{Off-Balance Sheet Risk Adjusted Assets}$$

Core Capital Adequacy Ratio: Core ratio shows the relationship between the total core capital or internal sources and total risk adjusted assets. It is calculated by using the following model;

$$\text{Core Adequacy Capital Ratio} = \frac{\text{Core Capital}}{\text{Total Risk Adjustment Assets}} \times 100$$

Supplementary Capital Adequacy Ratio: Tier I capital ratio is the expression of numerical relationship between Tier I capital and total risk adjusted assets. It shows the absolute contribution of supplementary capital in capital adequacy. It is calculated by using the following model;

$$\text{Supplementary Capital Adequacy Ratio} = \frac{\text{Supplementary Capital}}{\text{Total Risk Adequacy Ratio}} \times 100$$

3.6.2. Assets Quality

Non-Performing Loan to Total Loan (NPL): It measures the proportion of Non Performing loan in total loan and advance. The ratio is used to analyze the assets quality of the bank and determine by using the given model.

$$\text{Non Performing Loan to Total Loan Ratio} = \frac{\text{Non Performing Loan}}{\text{Total Loans and Advance}} \times 100\%$$

Where, **Non-performing loan:** These loans which is not recovered with in the given the time frame either in the form of interest or principle repayment.

Loan Loss Ratio (LLR): A loan loss ratio indicates the valuable allowance offset against total loans which represents the amount considered by management to be adequate to absorb unexpected losses inherent in the loan portfolio. For the purpose of this study following model is used to determine the loan loss ratio.

$$\text{Loan Loss Ratio} = \frac{\text{Loan Loss Provision}}{\text{Total Loan and Advances}} \times 100\%$$

3.6.3. Management Efficiency

Operating Expenses Ratio (OER): Operating Expenses Ratio is the expression of numerical relationship between total operating expenses and total operating revenue of the bank. The objective of bank is reducing operating of expenses and increased in the total operating

revenue. Higher operating expenses ratio indicates that financial institutions may not be operating efficiently, following model can be used calculation of operating expenses ratio.

$$\text{Operating Expenses Ratio} = \frac{\text{Total Operating expenses}}{\text{Total Operating Revenue}} \times 100\%$$

Where,

Total Operating Expenses = Interest expenses+ employees expenses+ office operating expenses+ exchange fluctuation loss+ provision for possible loss.

Total Operating Revenues= Interest Income +Commission and Discount + other operating income +Exchange Income.

Earning Per Employees (EPE): EPE is numerical relationship between net operating incomes and total numbers of employees. Low or decrease earning per employees can reflect in efficiencies as a result of overstaffing, with similar repercussions in terms of profitability. It is calculated by uses of the following models;

$$\text{Earning Per Employees} = \frac{\text{Net Operating Income}}{\text{Number of Employees}} \times 100\%$$

3.6.4. Earning Performance

Return on Equity (ROE): Return on Equity is a measure of the return on money provided by the firm's owners on equity, higher the investment which the shareholders will undertake. It also measures a firm's efficiency at generating profits from every dollar of net assets. And shows how well a company uses investment dollars to generate earnings growth. For the purpose of the study following model is used to determine the return on equity ratio.

$$\text{Return on Equity} = \frac{\text{Net Income After Tax}}{\text{Total Equity Capital}} \times 100\%$$

Total Equity Capital= Paid up Capital + Reserve Funds and Surplus

Return on Assets (ROA): Return on Assets is a measure of the return on money provided by both owners and creditors and is a measure of how efficiently all resources are managed. It indicates how capably the management of the bank has been converting the institutions assets into net earnings.⁶¹ It is calculated by using the following modes

$$\text{Return on Assets} = \frac{\text{Net Income After Tax}}{\text{Total Assets}} \times 100\%$$

Net Interest Margin (NIM): It refers to the income generated by banks via their operations. It is the difference between the average interests generate by the bank on loans advances, and toe average interest paid by the bank deposits.⁶²

Net interest margins of banks may vary depending upon market conditions. For the purpose of the study following model issued to determine net interest margin

$$\text{Net Interest Margin} = \frac{\text{Net Interest Income}}{\text{Earning Assets}} \%$$

Where, Net Interest Income= Interest Income-Interest Expenses

Earning Assets = Loan and Advances+ Investment on securities

Earning Per Share (EPS): EPS are the earnings returned on the initial investment amount. It provides a direct measure of the returns flowing to the bank's owners-it's stockholder-measured relative to the numbers of share to the public. It gives the strength of the share in the market; following is the expression of earning per share.

$$\text{Earning Per Share} = \frac{\text{Net Income After Tax}}{\text{No of Share of Common stock}} \times 100 \%$$

No of Share of Common Stock= Paid up Capital/Rs. 100

⁶¹ "Return on Assets", Wikipedia, The Free Encyclopedia 10 May 2007,20:01Wikimedia Foundation, Inc. 23 May 2007 <[http://en.wikipedia.org/wiki/Return on Assets](http://en.wikipedia.org/wiki/Return_on_Assets)>

⁶² "Net Interest Margin" Wikipedia, The Free Encyclopedia , 24 May, 2007, <[http://en.wikipedia.org/wiki/Net Interest Margin](http://en.wikipedia.org/wiki/Net_Interest_Margin)>

3.6.5. Liquidity Position

Liquid Assets to Total Deposits Ratio: It measures the proportion of total liquid assets in total deposits. For more it shows the overall short term liquidity position. The higher liquidity position and lower ratio shows the en efficient liquidity position of the bank. It is calculated by the using following model;

$$\text{Total Liquid Assets to Total Deposits Ratio} = \frac{\text{Total Liquid Assets}}{\text{Total Deposits}} \times 100\%$$

Where,

Total liquid Assets = Cash in hand + NRB Balance+ Domestic Bank Balance + Foreign Currency Bank Balance + Placement+ Investment in Government Securities

NRB Balance to Total Deposits Ratio: It measures the proportion of NRB balance in total deposits. For the purpose of this study following model is used to determine the NRB balance to total deposits ratio

$$\text{NRB Balance to Total Deposits Ratio} = \frac{\text{NRB balance}}{\text{Total Deposits}} \times 100\%$$

NRB Balance = Balance with Nepal Rastra Bank

Cash in Vault to Total Deposit Ratio: It shows the percentage of total deposit maintained as vault. It is worked out by using the following model;

$$\text{Cash in Vault to Deposits Ratio} = \frac{\text{Cash in Vault}}{\text{Total Deposit}}$$

Where,

Cash in Vault = Cash in hand+ Foreign currency in hand

3.6.6. Interest Rate Sensitivity:

The interest rate sensitivity position of a financial institution is estimated by gap analysis. A gap exists between these interest sensitive

assets and interest sensitive liabilities.⁶³ If interest sensitive assets in a each planning period i.e. day, week, month etc which is exceed the volume of interest sensitive liabilities subject to re pricing the bank is said to have a positive gap and to be assets sensitive. If R_i is the average interest rate change affecting assets and liabilities that can be re priced within i th maturity bucket, the effect on the Bank's Net Interest Income (NII) in the i th maturity bucket is calculated by ;

$$\Delta NII_i = \left(\sum_{i=1}^{i=1th \text{ Maturity Bucket}} RSA_i - \sum_{i=1}^{i=1th \text{ Maturity Bucket}} RSL_i \right) X \Delta R_i$$

$$= GAP_i X \Delta R_i$$

Where,

NII_i = Change in interest income in the i th maturity bucket

GAP_i = Rupee size of gap between book value of Rate Sensitive Assets (RSA) and Rate Sensitive Liabilities (RLA) in maturity bucket i

N = Number of pairs of observation.

Limitation of the Methodology

The major portion of analysis has been done on the basis of the available secondary data and information. So the consistency of finding and analysis depend upon the reliability of secondary data and information. Simple random sampling method has been drawing the sample which method itself is not free from bias. This study is focused on the financial analysis of joint venture banks in the framework of CAMELS system and is based on the audited financial annual reports of sampled joint venture banks during the study period from the 2001/02 through 2006/07. NRB had adopted CAMELS rating system to evaluate bank performance in recent year. So, the research work on all six components are little been done in Nepalese economy. The

⁶³ Ross, *Commercial Bank Management*, 212

effective of CAMELS ratings assessment requires quarterly financial reports. This study is based on annual report. So the conclusion drawn on the basis of analysis of data published annually may not be accurate as the conclusion draw on the basis of the analysis of quarterly published data.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

This chapter includes presentation and analysis of data collected from different sources. As stated in the theoretical prescription, the financial performance analysis of joint venture commercial banks in Nepal is concentrated in the six components: capital Adequacy, Assets Quality, Management Quality, Earning Quality, Earning Quality, Liquidity and Sensitivity to Market Risk. The final portion of this chapter presents the major findings of the study.

4.1 Presentation and Analysis of Data

The data are collected from different sources of four commercial joint venture banks. They are EBL, HBL, NABIL, and SCBL. Time series data have been used to analysis the financial performance of joint venture banks in the framework of CAMELS.

4.1.1 Capital Adequacy

Capital Adequacy is a measure of a commercial bank's capital as a percentage of its risk weighted assets, such as the loans it has provided and the securities it holds. The capital requirement is a bank regulation, which sets a framework on how commercial banks must handle their capital. The categorization of assets and capital is highly standardized so that it can be risk weighted. Total risk weighted assets comprise the sum of on-balance sheet assets and off-balance sheet items. Capital adequacy component analysis of sampled joint venture banks is used to find out whether banks are maintaining capital adequacy ratio as directed by NRB. Capital adequacy ratio, core

capital ratio and supplementary ratio are used to analyze the of capital adequacy of banks.

4.1.1.1 Capital Adequacy Ratio

Capital adequacy ratio measures the adequacy of capital for smooth operation of a bank. This ratio is used to protect depositors and promote the stability and efficiency of financial system around the world. A bank should maintain the adequate capital ratio as directed by NRB. Capital adequacy ratio below the NRB standard indicates lower internal sources, lower security to depositors and comparatively weak financial position. So it is required to maintain depositors' confidence and preventing the bank from going bankrupt. Capital adequacy ratio of sampled banks for the observed fiscal years is given in Table 4.1.

As shown in Table 4.1, in the case of EBL, the maximum capital adequacy ratio is 13.50% in FY2004/05 and minimum of 11.07% in FY 2003/04. The total capital fund and risk weighted assets are in increasing trend over the study period .The ratio was compared with NRB standard, which shows all ratio above the NRB standard with maximum variance of 3.9% and minimum variance of 0.07% in FY2001/02 and 2003/04 respectively. In the case of HBL, the total capital fund and risk weighted assets are also in increasing trend, whereas the capital adequacy ratio is maximum of 11.56% in FY2001/02 and minimum of 10.65% in FY2003/04. The ratio is positive variance in all years except in FY 2003/04 compared with NRB standard which was shortfall by 0.35% in FY 2003/04. In the case of NABIL, the capital adequacy ratio is maximum of 13.86% in FY2001/02 and minimum of 12.04% in FY2006/07. The capital fund is in fluctuating trend but risk weighted asset is in increasing trend. The ratio was found above the NRB standard in all the study period with maximum positive variance of 4.86% in FY2001/02 and minimum of 1.04% in FY2006/07. In the case of SCBL the capital

fund is in increasing trend but the risk weighted assets are in fluctuating trend, where as the capital adequacy ratio is maximum of 17.39% in FY2001/02 and minimum of 14.21% in FY2002/03. The ratio was found above the NRB standard in all the study period with maximum positive variance is 8.39% in FY2001/02 and minimum positive is 3.91% in FY2005/06.

Table 4.1: Total Capital Adequacy Ratio

Fiscal Years	Bank	Total Capital Fund(million)	Total Risk Weighted Assets (million)	Total Capital Ratio (%)	NRB Standard (%)	Variance (%)
2001/02	EBL	587.1	4566.91	12.9	9	3.9
	HBL	1472.97	12746.17	11.56	9	2.56
	NABIL	1464.45	10563.62	13.86	9	4.86
	SCBL	1435.34	8256.12	17.39	9	8.39
2002/03	EBL	684.16	5707.03	11.99	10	1.99
	HBL	1604.21	14681.45	10.93	10	0.93
	NABIL	1455.1	11145.73	13.05	10	3.05
	SCBL	1464.85	10307.53	14.21	10	4.21
2003/04	EBL	766.88	6924.81	11.07	11	0.07
	HBL	1796.22	16860.64	10.65	11	-0.35
	NABIL	1609.42	11872.01	13.56	11	2.56
	SCBL	1560.16	10023.09	15.57	11	4.57
2004/05	EBL	1247.56	9195.59	13.5	11	2.5
	HBL	2017.06	18321.72	11.01	11	0.01
	NABIL	1766.07	14193.07	12.44	11	1.44
	SCBL	1664.36	10497.53	15.85	11	4.85
2005/06	EBL	1391.34	11291.14	12.32	11	1.32
	HBL	2242.84	19918.33	11.26	11	0.26
	NABIL	2089.32	16976.37	12.31	11	1.31
	SCBL	1844.24	12369.49	14.91	11	3.91
2006/07	EBL	1676.12	14976.74	11.19	11	1.32
	HBL	2651.37	21889.71	12.11	11	0.26
	NABIL	2307.63	19166.77	12.04	11	1.31
	SCBL	2225.28	14168.42	15.71	11	3.91

Source: - Annual Reports of Sampled Joint Venture Banks.

Among these sampled joint venture commercial banks the capital adequacy ratio is maximum of 17.39% (in SCBL) and minimum of 10.65 % (in HBL). Capital adequacy ratio having 12% or more shows that the bank has strong capital adequacy. So capital adequacy of joint venture banks is strong during the study period only

EBL in FY2002/03, 2003/04 and HBL all FYs is satisfactory level due to capital adequacy less than 12% to more than 9% can be considered as satisfactory capital base. In general, all banks under study period met the capital adequacy ratio as directed by NRB. Only HBL has not met the minimum capital requirement as directed by NRB in the FY 2003/04.

4.1.1.2 Core Capital Adequacy Ratio

Core capital is primary capital, which can absorb losses without a bank being required to cease trading. It includes paid-up capital, share premium, non-redeemable preference share, general reserve, accumulated profit and loss amount and goodwill detectible if any. In this way, the core capital consists primarily of stockholder's equity.

Table 4.2 presents the observed core capital ratio and its comparison with minimum core capital standard set by NRB during the study period.

In the case of EBL, the core capital adequacy ratio is maximum (11.30%) in FY2001/02 and minimum (7.82%) in 2006/07. The total core capital and risk based assets are in increasing trend over the study period. The ratio is above the standard set by NRB observed years. In the case of HBL, percentage of core capital ratio is increasing year by year during the study period, where as maximum core capital adequacy is 9.61% in FY 2006/07 and minimum of 6.55% in FY 2001/02. The core capital and total risk weighted assets also in increasing trend. In the case of NABIL the core capital adequacy ratio is maximum of 12.12% in FY 2003/04 and minimum of 10.40% in FY 2006/07. The ratio is in fluctuating trend. In the case of SCBN, the core capital adequacy ratio is maximum of 13.92% in FY2001/02 and minimum of 12.31% in FY 2002/03. The total core capital is in increasing trend but risk weighted assets is in fluctuating trend, where as ratio is also in fluctuating trend.

Among these sampled joint venture commercial banks the core capital ratio is maximum of 13.92% (in SCBL) and minimum of 6.55% (in HBL). All banks have met capital adequacy ratio as directed by NRB. In general total core capital fund is in increasing trend and risk based core capital also in increasing trend except to the ratio of SCBL.

Table 4.2: Core Capital Adequacy Ratio

Fiscal Year	Bank	Total Core Capital(million)	Total Risk Weighted Assets(Million)	Risk Based Core Capital (%)	NRB Standard (%)	Variance (%)
2001/02	EBL	516.64	4566.91	11.3	4.5	6.8
	HBL	834.55	12746.17	6.55	4.5	2.05
	NABIL	1111.84	10563.62	10.53	4.5	6.03
	SCBL	1149.51	8256.12	13.92	4.5	9.42
2002/03	EBL	598.24	5707.03	10.48	5	5.48
	HBL	1038.62	14681.45	7.07	5	2.07
	NABIL	1038.62	11145.73	7.07	5	6.45
	SCBL	1268.59	10307.53	12.31	5	7.31
2003/04	EBL	663.27	6924.81	9.58	5.5	4.08
	HBL	1297.38	16860.64	7.69	5.5	2.19
	NABIL	1439.45	11872.01	12.12	5.5	6.62
	SCBL	1378.97	10023.09	13.76	5.5	8.26
2004/05	EBL	815.57	9195.59	8.9	5.5	3.4
	HBL	1525.77	18321.72	8.33	5.5	2.83
	NABIL	1610.51	14193.07	11.35	5.5	5.85
	SCBL	1450.19	10497.53	13.81	5.5	8.31
2005/06	EBL	927.55	11291.14	8.21	5.5	2.71
	HBL	1721.94	19918.33	8.65	5.5	3.15
	NABIL	1830.79	16976.37	10.78	5.5	5.28
	SCBL	1606.9	12369.49	12.99	5.5	7.49
2006/07	EBL	1171.13	14976.74	7.82	5.5	2.32
	HBL	2104.6	21889.71	9.61	5.5	4.11
	NABIL	1992.85	19166.77	10.4	5.5	4.9
	SCBL	1951.12	14168.42	13.77	5.5	8.27

Source:-Annual Reports in Sampled Joint Venture Banks.

4.1.1.3 Supplementary Capital Adequacy Ratio

Supplementary capital is a broad array of secondary capital resource. It is collected using the hybrid capital instruments, which can absorb losses in the event of a winding-up and so provides a lesser degree of protection to depositors. It includes loan loss provision,

exchange equalization resources, assets revaluation reserve, hybrid capital instruments, unsecured sub-ordinate term debt, interest rate fluctuation fund and other free reserves. NRB has set a standard of supplementary capital is not more than the core capital ratio of the bank.

Table 4.3 presents the supplementary adequacy ratio of sampled commercial banks over the study period.

Table 4.3: Supplementary Capital Adequacy Ratio

Fiscal Year	Bank	Total Supplementary Capital (million)	Total Risk Weighted Assets (Million)	Supplementary Capital Ratio (%)	NRB Standard (%) (Not more than Core Capital Ratio)	Variance (%)
2001/02	EBL	71.36	4566.91	1.6	11.3	-9.7
	HBL	638.42	12746.17	5.01	6.55	-1.54
	NABIL	352.62	10563.62	3.34	10.53	-7.19
	SCBL	285.81	8256.12	3.46	13.92	-10.46
2002/03	EBL	85.93	5707.03	1.51	10.48	-8.98
	HBL	565.59	14681.45	3.85	7.07	-3.22
	NABIL	1276.85	11145.73	11.45	11.45	-9.85
	SCBL	196.26	10307.53	1.9	12.31	-10.41
2003/04	EBL	104	6924.81	1.49	9.58	-8.09
	HBL	498.83	16860.64	2.96	7.69	-4.73
	NABIL	169.96	11872.01	1.43	12.12	-10.69
	SCBL	181.18	10023.09	1.81	13.76	-11.95
2004/05	EBL	432	9195.59	4.7	8.9	-4.2
	HBL	491.29	18321.72	2.68	8.33	-5.65
	NABIL	155.56	14193.07	1.1	11.35	-10.25
	SCBL	214.18	10497.53	2.04	13.81	-11.77
2005/06	EBL	493.79	11291.14	4.12	8.21	-4.09
	HBL	520.9	19918.33	2.62	8.65	-6.03
	NABIL	258.53	16976.37	1.52	10.78	-9.26
	SCBL	237.34	12369.49	1.92	12.99	-11.07
2006/07	EBL	504.98	14976.74	3.37	10.40	-8.76
	HBL	546.77	21889.71	2.5	7.82	-4.45
	NABIL	314.78	19166.77	1.64	9.61	-7.11
	SCBL	274.17	14168.42	1.97	13.77	-11.83

Source: Annual Reports of Sampled Joint Venture Banks.

As presented in Table 4.3 in the case of EBL, the supplementary capital and risk weighted assets are in increasing trend where as

maximum supplementary adequacy ratio is 4.70 % in F/Y 2004/05 and minimum is 1.49% in F/Y 2003/04. The supplementary capital ratio is not more than core capital ratio which is set by NRB standard, so that the ratio of EBL is within the boundary of NRB standard in over the study period. In the case of HBL, percentage of supplementary adequacy ratio is in fluctuating trend due to total supplementary capital is also in fluctuating trend. The maximum supplementary capital ratio is 5.10% in FY 2001/02 and minimum ratio of 2.50 % in FY 2006/07. The supplementary ratio is limit of NRB standard over the study period. In the case of NABIL the total supplementary capital is in fluctuating trend but risk weighted assets is in increasing trends where as maximum supplementary ratio as 3.34% in FY 2001/02 and minimum ratio is 1.10% in FY 2004/05. In the case of SCBL, the total supplementary trend where as maximum supplementary adequacy ratio is 3.46% in FY 2001/02 and minimum of 1.81% in FY 2003/04.

Among these sample joint venture commercial banks, the supplementary adequacy ratio is maximum of 5.01% in FY 2001/02 (in HBL) minimum of 1.10%(in NABIL). The supplementary capital ratio of all banks is within the limit of NRB standard throughout the study period.

4.1.2 Assets Quality

Assets a quality ratio is one of the most critical factors in determine overall condition of any commercial banks. Primary factors that can be considered are the quality of loan portfolio, mix of risk assets and credit administration system. Assets of the banks comprises of cash and bank balance, call money and short notice , investment , loans and advances and fixed assets. However investments and loans and advances play a major role in determine the quality of assets. These ratios look at the amount of different types of assets and attempt to determine if there are too high or too low with regard to current

operating levels. The prime reason behind meaning the assets quality is to ascertain the component of non performing assts as a percentage of total assets/loan and ascertain the components of non performing assets as a percentage of total assets/loan and advances. In addition, we have analyzed the ratio of loan loss reserve ratio and nonperforming loan. It reflects the safety margin for the bank against NPL. These ratios used to evaluate managerial efficiency proper utilization of assets and it also measures the degree of effectiveness in use of resources of funds by commercial banks.

1.1.2.1 Ratio of Non-Performing Loan to Total Loan and Advances

Loan and advances are the most profitable of all the assets of a commercial bank. This is the primary source of income and the most profitable of all the assets of the bank. But bank need to be careful about the safety of such loan and advances because bank may be influences by bad debts. When the borrower fail to pay the interest or even principal within the timeframe the performing loan begins to start in non performing loan.

As per the NRB unified directives 2062 all loans and advances must classify into four-pass, sub-standard, doubtful and loss. As a result, it has classified the pass loan as performing loans and other three types of loans are non- performing loans or past due loan. The ratio of non-performing loan total loan and advances measures the proportion of non-performing loan on the total volume of loans and advances. Lower ratio shows the better performance of the bank in mobilization of loans and advance and vice versa. The ratio is less than 5% shows that the bank has strong level of non-performing loan to total loan. The ratio having 10% to 20% can be fair level of non-performing loan on total loan.

Table 4.5: Ratio of Non-Performing Loan to Total Loan

Fiscal Year	Bank	Total Non-Performing Loan (million)	Total Loan (million)	Ratio of Non-Performing to Total Loan (%)	IAR
2001/02	EB L	42.31	4044.23	1.04	30.41
	HBL	1156.04	9557.14	12.1	30.41
	NABIL	556.88	7801.85	7.14	30.41
	SCBN	275.93	5696.18	4.84	30.41
2002/03	EB L	111.16	5049.58	2.2	28.68
	HBL	1092.84	10844.6	10.08	28.68
	Nabil	449.63	8113.68	5.54	28.68
	SCBN	247.95	6000.16	4.13	28.68
2003/04	EB L	104.76	6095.84	1.7	22.77
	HBL	1145.46	12919.63	8.88	22.77
	NABIL	286.68	8548.66	3.35	22.77
	SCBN	252.2	6693.86	3.77	22.77
2004/05	EB L	128.81	7900.09	1.6	18.94
	HBL	1001.35	13451.17	7.44	18.94
	NABIL	144.51	10946.74	1.32	18.94
	SCBN	226.31	8420.89	2.69	18.94
2005/06	EB L	129.24	10136.25	1.27	14.22
	HBL	1040.76	15761.98	6.6	14.22
	NABIL	182.62	13278.78	1.38	14.22
	SCBN	195.93	9206.28	2.13	14.22
2006/07	EB L	113.18	14082.69	0.8	14.08
	HBL	641.62	17793.72	3.61	14.08
	NABIL	178.29	15903.02	1.12	14.08
	SCBN	197.02	10790.15	1.83	14.08

Source: Annual Reports of Sampled Joint Venture Banks.

Table 4.5 presents the observed non-performing loan to total loan and comparison with industry average during the study period. In the case of EBL, the ratio of non-performing loan is fluctuating trend where as minimum ratio of is 1.04% in FY2001/02 to maximum ratio is 2.2% in FY 2002/03. All ratio shows strong level of past due loan. In the case of HBL, the ratio of non-performing to total is in decreasing trend. The range of ratio is from 6.6 % in FY 2005/06 to 12.10% in FY2001/02. In FY2001/02 and 2002/03 the ratio is more than 10%, which is the evidence of far level of past due loan to total loan. The ratio of non-performing loan to total loan of NABIL is

7.14% in FY2001/02, which is maximum and minimum is 1.32% in FY 2004/05. In the same way maximum non-performing ratio of SCBN has 4.84% in FY2001/02 and minimum ratio is 2.13% in FY 2005/06.

Generally, percent of non-performing loan on total loan of sampled joint venture banks is in decreasing trend over the study period. All the ratios are below the industry average. Despite the international benchmark appropriately justification due to high proportion of non-performing loan of two biggest government banks, the well non-performing loan is an international standard of below 5% in general. So that past due loan of joint venture banks on the average is at satisfactory level. Banking Industry is seriously affected by the non-performing loan. If non-performing loan increasing, the overall banking business will be affected. So provision amount will increase and profit will decrease. Although all banks perform satisfactory level it is suggest that, to be sincere while granting loan and to do effective follow up for recovery of non-perform loan.

4.1.2.2 Loan Loss Reserve Ratio

The loan loss provision ratio shows how efficiently the company manages its loan and advances and makes effort for the loan recovery. Loan loss provisions an arrangement made in order to safe guard from bankruptcy if loan amount is not recovered or if the debtors default on repayment of loan. The provision for loan loss provision for loan loss reflects the increasing probability of non-performing loan. Increasing loan loss provision decreased in profit result to decease in dividends. But its positive impact is that strengthens the financial condition of banks by controlling the credit risks related to deposits. The low ratio indicates the good quality of assets in total volume of loan and advance. The higher ratio indicates the relatively more risky assets in the volume of loans and advances and indicates poor credit management.

Table 4.6: Loan Loss Provision Ratio

Fiscal Year	Bank	Loan Loss Provision	Total Loan (million)	Loan Loss Reserve Ratio (%)
2001/02	EB L	95.75	4044.23	2.36
	HBL	643.41	9557.14	6.73
	NABIL	363.95	7801.85	4.66
	SCBN	332.18	5696.18	5.83
2002/03	EB L	149.62	5049.58	2.96
	HBL	842.75	10844.6	7.77
	NABIL	357.73	8113.68	4.41
	SCBN	304.34	6000.16	5.07
2003/04	EB L	291.72	6095.84	4.79
	HBL	967.76	12919.63	7.49
	NABIL	358.66	8548.66	4.2
	SCBN	283.62	6693.86	4.24
2004/05	EB L	281.42	7900.09	3.56
	HBL	1026.65	13451.17	7.63
	NABIL	360.57	10946.74	3.29
	SCBN	277.66	8420.89	3.3
2005/06	EB L	334.95	10136.25	3.3
	HBL	1119.42	15761.98	7.1
	NABIL	356.24	13278.78	2.68
	SCBN	270.86	9206.28	2.94
2006/07	EB L	418.6	14082.69	2.97
	HBL	795.73	17793.72	4.47
	NABIL	357.25	15903.02	2.25
	SCBN	287.51	10790.15	2.66

Source: Annual Reports of Sampled Joint Venture Banks.

Table 4.6 shows the loan loss reserve ratio of sampled JVBs over the six years. The ratio of EBL is in increasing in initial year of the study till 2003/04 then after in decreasing in final three year. The ratio of HBL shows the up and down trend .In case of NABIL and SCBL the ratio is in decreasing trend over the study period.

Among, the sampled JVBs the NABIL and SCBL have better performance than that of other two banks due to decrease in loan loss reserve ratio. Here HBL and EBL should follow up for recovery of loan.

4.1.3 Management Quality

Sound management is important key to bank performance. Every bank has find out actual management performance involves two analysis, which is subjective analysis and objective analysis.

Mainly subjective analysis for measuring the efficiency of the management, but it is difficult to measure. There is no particular facture can be used measure for assessing management quality. Involvement of board of directors, success of top management, quality of manpower, customer relationship, management information system, internal control decision process, operating and lending decisions and technical factor etc are qualitative aspects of assessment of management. In measure the efficiency of the management in an objective way, we have used only two parameters: total operating revenue to total operating expanses and earning per employee of the bank are being used. Other parameters are not used in research due to information constant.

4.1.3.1 Earning per Employee

The earning per employee ratio is measure the overall efficiency of the bank's staff. It is calculated dividing net profit after tax by number of employee. Higher the earning per employee reflects the higher the efficiency of the staff. Lower earning per employee reflects inefficiencies as a result of overstaffing which is directly effect on the profitability of the company.

Earning per employee of sampled JVBs over the study Period has been presented in Table 4.6. In the case of EBL, EPE in Rupees is in increasing trend except in final year where as EPE of HBL is in fluctuated trend only in the first year of the review period there after it increased continuously till the final year of the review period. As shown in Table EPE in case of NABIL the ratio at first has decreased in FY 2001/02 and thereafter abruptly increased in 2002/03. Following

two years shows continuously decrease and last two years again increase, where as incase of SCBL is in fluctuating trend.

On the whole, the maximum EPE was Rs.2044867.39 (in SCBL) and minimum is Rs.393306.20 (in EBL). Although, EPE is the least among other banks, its ratio is in increasing trend over the study period. It indicates symbol of good management. Overall EPE of JVBs is relatively at satisfactory level.

Table 4.6: Earning Per Employee

FY	Bank	Net Profit (million)	Number of Employee	Earning per Employee
2001/02	EBN	85.35	217	393306.2
	HBN	235.02	357	658329.16
	Nabil	271.64	382	711095.84
	SCBN	479.21	243	1972043.49
2002/03	EBN	94.18	239	394060.37
	HBN	212.13	385	550983.08
	Nabil	416.24	326	1276796.97
	SCBN	506.93	275	1843389.41
2003/04	EBN	143.57	250	574266.73
	HBN	263.05	455	578139.55
	Nabil	455.31	372	1223954.9
	SCBN	537.8	263	2044867.39
2004/05	EBN	170.81	257	664621.78
	HBN	308.28	501	615319.7
	Nabil	518.64	426	1217454.81
	SCBN	539.2	302	1785443.33
2005/06	EBN	237.29	306	775460.58
	HBN	457.46	561	815432.62
	Nabil	635.26	441	1440504.193
	SCBN	658.76	345	1906828.64
2006/07	EBN	296.41	393	754222.09
	HBN	491.82	584	842162.51
	Nabil	673.96	427	1578359.95
	SCBN	691.67	351	1970564.29

Source: Annual Reports of Sampled Joint Venture Banks.

4.1.3.2 Total Operating Income (TOI) to Total Operating Expenses (TOE)

In this study, total operating expenses to total operating revenues ratio is used as a proxy of management quality. It indicates profitability of a company. It is determined by the gap of total operating revenue and total operating expenses which is direct control and monitoring of the management. A high or increasing ratio of expenses to total incomes indicates inefficient operation of the company which may negative affect productivity of the company.

Commercial banks mainly earns income from interest on loans and advances, commissions, fees, and discounts, foreign exchange rate gains, and other miscellaneous income. And, the main components of expenses of commercial banks are interest on deposits, staff salary, provident fund write-off of bad debt loan and other operating expenses like rent, water supply and electricity, fuel expenses, audit fee expenses, management expenses, depreciation, miscellaneous expenses, direct related to the operating of company.

Table 4.7 shows the total operating expenses to total revenue ratio of JVBs during the study period the last six fiscal years. In case of EBL the ratio is in fluctuating trend, which was maximum ratio 76.38% in FY2002/03 and minimum is 64.08% in FY2006/07. In case of HBL, ratio is also in fluctuating trend, minimum was 66.28% in FY2004/05 to maximum 73.03% in FY 2002/03. Where as, the ratio of TOE to TOR of NABIL was maximum in FY 72.32% in FY 2001/02 and minimum in FY 2005/06 with 44.47%. In the same way, the ratio of TOE to TOR in SCBL is minimum of 43.00% in FY 2005/06 to maximum was 47.89% in FY2001/02.

Among these sampled joint venture banks the maximum ratio of TOE to TOR was 76.38% in FY2002/03 (in EBL) and minimum is 43.00% in 2005/06 (in SCBL). All ratios show the decreasing trend except EBL and HBL. The overall ratio implies that all JVBs in

decreasing expenses with respect to income which is symbol of good management quality

Table 4.7: Total Operating Income to Total Operating Expenses

FY	Bank	TOI	TOE	TOI to TOE
2001/02	EBL	399.39	539.79	73.99
	HBL	1001.96	1387.34	72.22
	NABIL	1185.36	1639.12	72.32
	SCBN	692.87	1446.81	47.89
2002/03	EBL	484.34	634.08	76.38
	HBL	1054.28	1443.55	73.03
	NABIL	745.71	1340.5	55.63
	SCBN	696.83	1503.6	46.34
2003/04	EBL	550.48	783.19	70.29
	HBL	1041.32	1516.32	68.67
	Nabil	697.42	1333.65	52.29
	SCBN	713.7	1584.01	45.06
2004/05	EBL	578.16	855.98	67.54
	HBL	1165.07	1757.89	66.28
	Nabil	668.7	1438.44	46.49
	SCBN	689.44	1573.32	43.82
2005/06	EBL	686.35	1063.55	64.53
	HBL	1358.28	2042.38	66.51
	Nabil	763.41	1716.67	44.47
	SCBN	740.25	1721.45	43.00
2006/07	EBL	870.51	1358.5	64.08
	HBL	1471.89	2160.77	68.07
	Nabil	998.26	2035.87	49.03
	SCBN	878.1	1971.06	44.55

Source: Annual Reports of Sampled Joint Venture Banks.

4.1.4 Earning

The main objective of bank is to earn profit by providing different types of banking services to its customer. A required level of profit is necessary for the firm's growth and survival in the competitive environment. The success of the bank heavily relies upon the efficiency of management to drive the bank to earn good profits. Most of the commercial banks have been able to grow their net profits while some of the banks, resulting from high non-performing loan and operating inefficiencies are struggling with either very low net profit or

negative profits. Analysis of the earnings helps the management, shareholders and depositors to know about the performance of the bank, sustainability of earnings and to forecast growth of the bank. Therefore following ratios have been analyzed to test earning capacity of sampled JVBs.

4.1.4.1 Return on Equity (ROE)

ROE is the most vital tool to judge whether a bank has earned a satisfactory return to its equity shareholders or not. It is important measurement from the owner's point of view. It measures the return in the owner's fund. The ratio indicates how well the bank as used the resources of owners. This ratio measures the percentage of net profit to shareholders funds. Higher ratio of ROE ensures to owners that their investment is safe and they can get return regular. Generally, the ROE ratio should be 15% and higher as desired for banking industry.

Table 4.8 presents the ROE of sampled JVBs for the period between FY 2001/02 to FY 2006/07. The maximum ratio of ROE of EBL is 24.67% in final year and minimum of 10.36% in first year. The ratio is in increasing trend except FY 2004/05. The ratio of HBL is in decreasing up to FY 2003/04 and thereafter it is in increasing trend of up to FY 2005/06 and again decreases in final year. The ratio ranges from a minimum of 19.87% in FY 2003/04 to maximum of 27.39% in FY 2001/02. Where as the ratio of NABIL being up and down except FY 2005/06 of study period. The ROE of 23.69% is the maximum in FY 2001/02 and maximum of 33.88% in FY 2005/06. Finally, the ROE of SCBL has continually decreasing except FY 2005/06 over the study period.

The observed value of ROE ratio is above the 15% benchmark except EBL in FY 2001/02 of all selected JVBs. Hence the HBL, NABIL and SCBL of ROE ratio is sound then EBL.

Table 4.8: Return on Equity (ROE)

FY	Bank	Net profit After Tax	Shareholder's Equity	ROE
2001/02	EBL	85.35	824.23	10.36
	HBL	235.02	858.11	27.39
	NABIL	271.64	1146.43	23.69
	SCBN	479.21	1235.48	38.79
2002/03	EBL	94.18	530.91	17.74
	HBL	212.13	1063.13	19.95
	NABIL	416.24	1314.19	31.67
	SCBN	506.93	1368.91	37.03
2003/04	EBL	143.57	631.8	22.72
	HBL	263.05	1324.17	19.87
	NABIL	455.31	1481.68	30.73
	SCBN	537.81	1495.74	35.96
2004/05	EBL	170.81	769.62	22.19
	HBL	308.28	1541.75	20
	NABIL	518.64	1657.64	31.38
	SCBN	539.2	1582.42	34.07
2005/06	EBL	237.29	962.81	24.65
	HBL	457.46	1766.18	25.9
	NABIL	635.26	1874.99	33.88
	SCBN	658.76	1754.14	37.55
2006/07	EBL	296.41	1201.52	24.67
	HBL	491.82	2146.5	22.91
	NABIL	673.96	2057.05	32.76
	SCBN	691.67	2116.35	32.68

Source: Annual Reports of Sampled Joint Venture Banks.

4.1.4.2 Return on Assets (ROA)

ROA measures the banks ability to earn rate of return on the total assets invested. It is most important measurement of bank, which is measure the effectiveness of the banks in generating profits through the usage of available resources i.e. total assets. The higher the ratio of ROE indicates the higher efficiency in utilizing bank resources and generating profit. The ROA ratio should be 1.5% or more shows the bank has strong earning capacity. Table 4.9 exhibits the ROA ratio of JVBs during the study period.

Table 4.9: Return on Equity

FY	Bank	Net Profit After Tax	TA	ROA
2001/02	EBL	85.35	5139.78	1.7
	HBL	235.02	20672.43	1.14
	NABIL	271.64	17629.25	1.54
	SCBN	479.21	18443.11	2.6
2002/03	EBL	94.18	8052.21	1.2
	HBL	212.13	23355.22	0.91
	NABIL	416.24	16562.62	2.51
	SCBN	506.93	20910.97	2.42
2003/04	EBL	143.57	9608.57	1.5
	HBL	263.05	24762.02	1.06
	NABIL	455.31	16745.49	2.72
	SCBN	537.81	23642.06	2.27
2004/05	EBL	170.81	11792.13	1.4
	HBL	308.28	27844.69	1.11
	NABIL	518.64	17064.08	3.05
	SCBN	539.2	21893.58	2.46
2005/06	EBL	237.29	15959.28	1.5
	HBL	457.46	29460.39	1.55
	NABIL	635.26	22329.97	2.84
	SCBN	658.76	25776.33	2.56
2006/07	EBL	296.41	21432.57	1.38
	HBL	491.82	33519.14	1.47
	NABIL	673.96	27253.39	2.47
	SCBN	691.67	28596.69	2.42

Source: Annual Reports of Sampled Joint Venture Banks.

As exhibits in Table 4.9 ROA ratio of EBL is being up and down review the study period. It ranges from a minimum of 1.2% in the second period to maximum of 1.7% in the first year of study. So on, the ratio of HBL decreased in FY 2002/03 and then continuously in increasing FY 2005/06 and again decrease in FY 2002/03. The maximum ratio is 1.55% FY2005/06 and minimum of 0.91% in second year. Likewise the ROA of NABIL has in increasing trend except in final two years. The ratio of ROA varies from the minimum of 1.54% in FY 2001/02 to maximum of 3.05% in FY 2004/05. At the end, the ROA ratio of SCBL is in fluctuating trend with the highest ratio 2.60% in first year and the lowest 2.27% in third year review the study period.

NABIL bank and SCBL have maintained strong position regarding the ROE. But EBL and HBL have less than 1.5% FY 2001/02 to FY2003/04 except in the final three years of study period. In general most of the banks are in increasing trend of ROA, which shows the banks are utilizing assets to generating profit.

4.1.4.3 Earning Per Share (EPS)

EPS measures the profit available to the equity shareholders as per share i.e. the amount they get from every share. It does not reflect how much is paid as dividend and how much is retained in the business. A bank can decide whether to increase or reduce of shares on issue. This decision will automatically affect the earning per share. It reflects the earning power of the bank. Higher EPS ratio shows the sound profitability position of the bank and vice versa. Table 4.10 exhibits the EPS of sampled JVBs during the study period.

As exhibits in Table 4.10 EPS of EBL is maximum of 78.42% in the final year and minimum of 29.90% in the second year of study. It is in increasing trend except in the second year of study. Where as, the EPS of HBL has continuously decline from the initial FY 2001/02 to FY 2004/05 and slightly increase in last final two years. The EPS ranges from a minimum of 49.05% in FY 2003/04 to maximum of 66.66% in FY 2006/07. Likewise, the EPS of NABIL is continually increasing during the study period. So on, the EPS of SCBL increased in FY 2002/03 then FY 2001/02 and it is decreased in the FY 2003/04 again slightly increased in two years. In final year ratio of EPS is decrease in study period. The EPS calculated in the Table shows the minimum ratio of 114.13% in initial year and maximum of 175.84% in FY 2005/06.

EPS of most of the sampled banks is in increasing trend, which shows that the profitability position of these banks is improving. EPS ratios of sampled JVBs shows all banks able to maximize the shareholders wealth.

Table 4.10: Earning Per Share

FY	Bank	Net Profit (million)	No of Share (million)	EPS(Rs)
2001/02	EBL	85.35	2.59	32.91
	HBL	235.02	3.9	60.26
	NABIL	271.64	4.92	55.25
	SCBN	479.21	3.4	141.13
2002/03	EBL	94.18	3.15	29.9
	HBL	212.13	4.19	49.45
	NABIL	416.24	4.92	84.66
	SCBN	506.93	3.4	149.3
2003/04	EBL	143.57	3.15	45.58
	HBL	263.05	5.36	49.05
	NABIL	455.31	4.92	92.61
	SCBN	537.81	3.75	143.55
2004/05	EBL	170.81	3.15	54.22
	HBL	308.28	6.44	47.91
	NABIL	518.64	4.92	105.79
	SCBN	539.2	3.75	143.93
2005/06	EBL	237.29	3.78	62.78
	HBL	457.46	7.72	59.24
	NABIL	635.26	4.92	129.21
	SCBN	658.76	3.75	175.84
2006/07	EBL	296.41	3.78	78.42
	HBL	491.82	8.11	66.66
	NABIL	673.96	4.92	137.08
	SCBN	691.67	4.13	167.37

Source: Annual Reports of Sampled Joint Venture Banks.

4.1.4.4 Net Interest Margin

The net interest margin measures the banks ability in mobilizing lower cost funds and investing them at reasonably higher interest by borrowing short and lending long. Net interest income is different between interest income and interest expenses. Earning assets includes investment, loan and advances and bills purchased and money at call and short notice. The net interest margin means net interest income as percentage of net earning assets. The positive or increasing ratio indicates better efficiency of interest generating by utilizing the earning assets and vice versa. The net interest margin ratio between 3

to 4 percent and higher is better in banking industry. Net interest margin of sampled JVBs are presented in Table 4.11.

Table 4.11: Net Interest Margin

FY	Bank	Net Interest Income Net Interest Margin	Earning Assets	Net Interest Margin
2001/02	EBL	186.77	4086.39	4.57
	HBL	570.87	18423.18	3.10
	NABIL	658.11	15668.78	4.20
	SCBL	713.78	16701.85	4.27
2002/03	EBL	212.53	7727.64	2.75
	HBL	647.11	20327.38	3.18
	NABIL	700.52	14457.33	4.85
	SCBL	746.21	17569.93	4.25
2003/04	EBL	340.88	8607.23	3.96
	HBL	754.35	21612.87	3.49
	NABIL	718.67	14941.77	5.05
	SCBL	766.37	19989.17	3.83
2004/05	EBL	419.73	10317.60	4.07
	HBL	884.50	24557.94	3.60
	NABIL	815.20	15721.83	5.19
	SCBL	804.55	20105.45	4.00
2005/06	EBL	502.01	14068.78	3.57
	HBL	977.63	26536.87	3.68
	NABIL	952.84	20835.98	4.57
	SCBL	886.40	23560.22	3.76
2006/07	EBL	627.24	18648.4	3.36
	HBL	1008.17	30531.01	3.30
	NABIL	1032.05	25054.62	4.12
	SCBL	998.93	25817.02	3.87

Source: Annual Reports of Sampled Joint Venture Banks.

The data presented in Table 4.11 exhibits the NIM of EBL is in fluctuating trend where as maximum ratio was 4.57% in the first year of study and minimum of 2.75% in the second year of study. In case of HBL the net interest margin ratio is in continually increasing trend except final years of study period, where as the NIM ratio of NABIL is also in increasing trend except the final two years of study period. The NIM ranges from minimum of 4.12% in FY 2006/07 to maximum of 5.19% in FY 2004/05. At end the NIM ratio of SCBL varies from the minimum of 3.76% of FY2005/06 to maximum of 4.27% in FY

2001/02, where as NIM is in continually decreasing trend in first three years and slightly increased in FY2004/05, again decrease in FY 2005/06. In final year slightly increase in study period.

The net interest margin ratio between 3 to 4 percent and higher is better in banking industry. The observed ratio of net interest margin in sampled banks are above the benchmark 3 to 4% except EBL in FY 2002/03 i.e. 2.75% of all study period. So EBL is bad performance then other three banks. It concluded that the net interest margin ratio is better.

4.1.5 Liquidity

The main objective behind this parameter is to assess the ability of a bank to meet the demand from the deposit holders in a particular time. Liquidity risk arises when liquidity deficit and much more liquidity surplus which indicates the problem in the financial health of a commercial bank. Day to day withdraws by liability holders are generally predictable but large FIs can borrow additional funds or demand large amount then usual that makes sudden shortfalls of cash in bank. So every commercial bank should manage the liquidity risk using various methods. Liquidity has been compared based on the following parameters.

4.1.5.1 Total Loan to Total Deposit Ratio (LDR)

The LDR reveals the efficiency with which the commercial banks and collect so many from the available sources and channeling these to a various productive activities in the economy. Commercial banks collect deposits from the individual and institutional deposits in from of different accounts offered. These funds are further extended in the form of loan and advances to different borrowers consider various aspects like risk analysis, diversification bank's policy, NRB rules and regulations, customer behavior etc.

The ratio tries to find out which banks is successful to utilize the depositor's funds to earn profit by computed by dividing the total amount of loans and advances by total deposit. Higher ratio indicates proper utilization of funds that the bank has more funds than it needs for investment.

Table 4.12: Total Loan to Total Deposit Ratio

Fiscal Years	Bank	Total Loan and Advance	Total Deposit	Loan Deposit Ratio	Industry Average
2001/02	EBL	4044.23	4574.51	88.41	61.1
	HBL	9557.14	18619.38	51.30	61.1
	NABIL	7801.85	15506.43	50.31	61.1
	SCBL	5696.18	15835.75	35.97	61.1
2002/03	EBL	5049.58	5466.61	92.37	61.1
	HBL	10844.66	21007.40	51.62	61.1
	NABIL	8113.68	13447.66	60.34	61.1
	SCBL	6000.16	18755.63	31.99	61.1
2003/04	EBL	6095.84	8063.9	75.89	59.9
	HBL	12919.63	22010.33	58.70	59.9
	NABIL	8548.66	14119.03	60.55	59.9
	SCBL	6693.86	21161.44	31.63	59.9
2004/05	EBL	7900.09	10097.69	78.24	64.9
	HBL	13451.17	24814.01	54.21	64.9
	NABIL	10946.74	14586.61	75.05	64.9
	SCBL	8420.87	19335.09	43.55	64.9
2005/06	EBL	10136.25	13802.44	73.44	60.7
	HBL	15761.98	26490.85	59.50	60.7
	NABIL	13278.78	19347.40	68.63	60.7
	SCBL	9206.28	23061.03	39.92	60.7
2006/07	EBL	14082.69	18186.25	77.44	68.7
	HBL	17793.72	30048.42	59.22	68.7
	NABIL	15903.02	23342.29	68.13	68.7
	SCBL	10790.19	24647.02	43.78	68.7

Source: Annual Reports of Sampled Joint Venture Banks.

Table 4.12 shows that the total loan and advances to total deposit ratio of sampled JVBs from FY 2001/02 to FY 2006/07.

Ratio of EBL ranges highest of 92.37% in FY 2002/03 and lowest 73.44% in FY 2005/06 shows fluctuating trend in the review period likewise the ratio of HBL ranges highest of 59.30% in FY 2005/06 and lowest of 51.30% in FY 2001/02. The ratio shows in increasing trend all the study period except FY 2004/05. So on the

ratio of NABIL bank has increased for in the first four years and decrease in the final two year of the study period. The highest ratio is 75.05% in FY 2004/05 and the lowest ratio of 50.31% in FY 2001/02. SCBL has in fluctuating trend ratio, the highest ratio 43.78% in FY 2006/07 and lowest ratio was 31.63% in FY 2003/04.

Among sampled JVBs shows highest ratio total loan and advance to total deposit was 92.37% in FY 2002/03 (in EBL) and lowest ratio 31.63% in FY 2003/04 (in SCBL). In conclusion the ratios are in increasing trend except SCBL. It reveals that they will not face the liquidity problems in future. In SCBL liquidity is slightly up and down but in the 2006/07, it has maintained higher liquidity than in fiscal year 2001/02.

4.1.5.2 NRB Balance to Total Deposit Ratio

This ratio measures the proportion of NRB balance in total deposits. It shows whether the commercial bank is holding the balance as required by NRB or not. According to NRB directives, every commercial bank should maintain certain percent of total deposit in NRB, to ensure adequate liquidity in the commercial banks, to meet the depositor's demand for cash at any time, to inject the confidence in depositors regarding the safety of their deposited funds. The bank should strictly comply with the directives. Total deposit means current saving and fixed deposit an account as well as call account deposit and certificates of deposits.

Table 4.13: NRB Balance to Total Deposit Ratio

Fiscal Years	Bank	NRB Balance	Total Deposit	NRB DR	Industry Average
2001/02	EBL	357.70	4574.51	7.82	13.4
	HBL	695.38	18619.38	3.73	13.4
	NABIL	506.67	15506.43	3.27	13.4
	SCBL	376.22	15835.75	2.38	13.4
2002/03	EBL	730.33	5466.61	13.36	8.9
	HBL	1153.14	21007.40	5.49	8.9
	NABIL	892.75	13447.66	6.64	8.9
	SCBL	1141.10	18755.63	6.08	8.9
2003/04	EBL	442.24	8063.9	5.48	9.7
	HBL	1625.98	22010.33	7.39	9.7
	NABIL	606.69	14119.03	4.30	9.7
	SCBL	1534.17	21161.44	7.25	9.7
2004/05	EBL	779.67	10097.69	7.72	7.1
	HBL	1604.15	24814.01	6.46	7.1
	NABIL	389.71	14586.61	2.67	7.1
	SCBL	692.19	19335.09	3.58	7.1
2005/06	EBL	1139.51	13802.44	8.26	7.2
	HBL	1096.25	26490.85	4.14	7.2
	NABIL	318.36	19347.40	1.65	7.2
	SCBL	749.74	23061.03	3.25	7.2
2006/07	EBL	1178.2	18186.25	6.48	6.9
	HBL	1272.54	30048.42	4.23	6.9
	NABIL	1113.42	23342.29	4.77	6.9
	SCBL	1613.76	24647.02	6.55	6.9

Source: Annual Reports of Sampled Joint Venture Banks.

Table shows the ratio of NRB balance to total deposit ratio of last six fiscal years. As exhibits in Table 4.13 the ratio of EBL is in fluctuating during the study period and it is distributed from minimum of 5.48% in FY 2003/04 to maximum of 13.26% in FY 2002/03, where as ratio of HBL, is in increasing trend during the first three years and slightly decreasing in last three years. The ratios were less than industry average ratio in all observed years. So on the ratio of NABIL bank is being up and down over the period of the study period except FY 2004/05. It ranges from a minimum of 1.65% in FY 2005/06 to maximum of 6.64% in FY 2002/03. At the end, the ratio of SCBL is in fluctuating trend. It has minimum of 2.38% in the first fiscal year to maximum of 7.25% in the third fiscal year.

The ratio of NRB balance to total deposit ratio of all sampled JVBs was less than industry average. It shows balance with NRB is less than that of average which indicates that they are less experience towards balance with NRB.

4.1.5.3 Cash in Vault to Total Deposits Ratio

This ratio shows the percentage of total deposit maintained in vault. The term cash in vault represent the ratio measures the percentage of most liquid fund with the bank to make immediate payment or the depositors. Cash in hand and foreign currencies in hand are included as cash in vault. So, sufficient and appropriate cash reserve in the vault should be maintained. Table 4.14 presents the observed cash in vault to total deposit ratio comparison with industry average of sampled JVBs during the study period.

Table 4.14: Cash in Vault to Total Deposits Ratio

Fiscal Years	Bank	Cash in Vault	Total Deposit	CDR	Industry Average
2001/02	EBL	108.10	4574.51	2.36	3.2
	HBL	462.78	18619.38	2.43	3.2
	NABIL	318.16	15506.43	2.05	3.2
	SCBL	257.84	15835.75	1.63	3.2
2002/03	EBL	136.66	5466.61	2.50	2.90
	HBL	397.19	21007.40	1.89	2.90
	NABIL	187.76	13447.66	1.40	2.90
	SCBL	198.76	18755.63	1.06	2.90
2003/04	EBL	128.76	8063.9	1.60	1.80
	HBL		22010.33		1.80
	NABIL	286.89	14119.03	2.03	1.80
	SCBL	187.70	21161.44	0.89	1.80
2004/05	EBL	192.59	10097.69	1.91	1.9
	HBL	286.53	24814.01	1.15	1.9
	NABIL	146.35	14586.61	1.00	1.9
	SCBL	195.45	19335.09	1.01	1.9
2005/06	EBL	259.35	13802.44	1.88	2.2
	HBL	305.43	26490.85	1.15	2.2
	NABIL	237.82	19347.40	1.23	2.2
	SCBL	279.51	23061.03	1.21	2.2
2006/07	EBL	534.1	18186.25	2.94	2.3
	HBL	177.24	30048.42	0.59	2.3
	NABIL	270.41	23342.29	1.16	2.3
	SCBL	378.42	24647.02	1.54	2.3

Source: Annual Reports of Sampled Joint Venture Banks.

Cash in vault to total deposit ratio of EBL is being up and down over the study period. It ranges found minimum of 1.88% in FY 2005/06 and maximum of 2.94% in FY 2006/07 of study period. So on, the ratio of HBL has maximum of 2.49% in first fiscal year and minimum of 0.59% in final fiscal year. It is declining year by year from the beginning fiscal year to at the end of fiscal year of study. Like ratio of NABIL bank is also being up and down over the study period. It ranges from a minimum of 1% in FY 2004/05 and maximum of 2.05% in FY 2001/02. At the end ratio of SCBL is in fluctuating trend whereas maximum of 1.63% in FY 2001/02 and minimum of 0.89% in FY 2003/04.

Cash in Vault to total deposit ratio of sampled JVBs compared with industrial average shows below the industry average through the study period. It concluded that bank have inadequate cash in vault as liquidity over the study period.

4.1.6 Sensitivity to Market Risks

These parameters refers to the risk conditions in the market such as exchange risk, interest rate risk e.t.c, which could adversely affect earnings/or capital of the bank. Banking business is open to risks from movements in competitors prices, competitors cost of fund, foreign exchange rates and interest rates all of which need to be managed . Although Nepalese banking sector is exposed to interest rate risk and the exchange rate risk, interest rate is the focus of this study. It is primary risk in most of the commercial banks in Nepal.

This study is worked with duration gap model, which is simple method then other dollar gap and simulation analysis. Duration gap model simply measures the net quality of assets or liabilities re-pricing with in a given period to estimate the likely impact changes in interest rates will have in earnings. According to NRB, duration gap analysis model adapted for minimization of liquidity risks shall also be adapted

in respect of minimization of IRR. Banks shall classify the time interval of the assets and liabilities on the basis of maturity period of 0-90 days, 91-180 days, 181-270 days, 271-365 day, over the 365 days. For changing probability of estimate interest rate is normally one percent can be determined .The effect on the percent change in NII is calculated by multiplying the change in interest rate ΔR_i in the i th maturity bucket annualized with cumulative Gap.

If the interest rates rise on RSAs and RSAs, the positive CGAP (RSA>RSL) would project increase in the expected annual NII .However if interest rate fall when CGAP is positive, NII will fall. In General, when the CGAP or the GAP ratio is positive (RSA>RSL), the change in NII is positively related to the change in interest rates. Thus banks would want to keep CGAP positively when interest rates expected to rise. Conversely, when CGAP is negative the change in NII is negatively related to the change in interest rates. Thus banks are expected to keep CGAP negative when interest rates are expected to fall.

Gap analysis of RSAs and RSLs of sampled JVBs for the period FY 2001/02 to 2006/07 is made as shown in table 4.17 (a, b, c, d), 4.18 (a, b, c, d), 4.19 (a, b, c, d) and 4.20(a, b, c, d) in respectively EBL, SCBL, HBL and NABIL based on the different maturity time bucket.

In the case of EBL from FY 2001/02 to 2006/07, net financial assets (RSA-RSL) reprising in the short term maturity bucket ranging from 0-90days to 271-365 days was found positive except FY2001/02 which was shortfall by Rs 305.50 million reprised in 91-180 days time bucket . In the long-term maturity bucket (>365 days) the gap was negative in all the years .The CGAP ratio in the short term horizon was highest with 51.18% in FY2002/03 &the lowest with 8.29%in FY2006/07 .In long term horizon the highest CGAP ratio was 15.52%in FY 2002/03 and lowest with in 10.59% in FY 2004/05. It indicates RSA and RSL in reprising in short term maturity bucket are

highly sensitive to interest rate, even though it is in decreasing trend. In long term horizon is comparatively low sensitive to interest rate, when interest rate changes by 1% its impact on annual NII. In a rising interest environment the bank would profit over the 1 year time horizon as it has maintained CGAP >0 (Positive) and vice-versa.

Table 4.15: Sensitivity of market risk of EBL

		RSA(m)	RSL(m)	GAPi	CGAPi	RSA/RSL	CGAPiRatio	R%	NII(m)=	%change
				(RSA-RSL) m	(RSA-RSL) m		(CGAP/ TotalRS Asm(%))		CGAPXR	in NII
2001/02	Jan-90	3651.50	1183.50	2468.00	2468.00	3.09	39.10			
	91-180	516.60	822.10	-305.50	2162.50	0.63	34.26			
	180-270	310.40	254.0	56.40	2218.90	1.22	35.15			
	271-365	713.20	647.60	65.60	2284.50	1.10	36.19	1%	22.85	0.36%
	>365	1121.00	2641.20	-1520.20	764.30	0.42	12.11	1%	7.64	0.12%
	Total	6312.70	5548.40	764.30	764.30	1.14	12.11			
2002/03	Jan-90	3651.50	1183.50	2468.00	2468.00	3.09	39.10			
	91-180	516.60	822.10	-305.50	2162.50	0.63	34.26			
	180-270	310.40	254.0	56.40	2218.90	1.22	35.15			
	271-365	713.20	647.60	65.60	2284.50	1.10	36.19	1%	22.85	0.36%
	>365	1121.00	2641.20	-1520.20	764.30	0.42	12.11	1%	7.64	0.12%
	Total	6312.70	5548.40	764.30	764.30	1.14	12.11			
2003/04	Jan-90	3651.50	1183.50	2468.00	2468.00	3.09	39.10			
	91-180	516.60	822.10	-305.50	2162.50	0.63	34.26			
	180-270	310.40	254.0	56.40	2218.90	1.22	35.15			
	271-365	713.20	647.60	65.60	2284.50	1.10	36.19	1%	22.85	0.36
	>365	1121.00	2641.20	-1520.20	764.30	0.42	12.11	1%	7.64	0.12%
	Total	6312.70	5548.40	764.30	764.30	1.14	12.11			
2004/05	Jan-90	3651.50	1183.50	2468.00	2468.00	3.09	39.10			
	91-180	516.60	822.10	-305.50	2162.50	0.63	34.26			
	180-270	310.40	254.0	56.40	2218.90	1.22	35.15			
	271-365	713.20	647.60	65.60	2284.50	1.10	36.19	1%	22.85	0.36
	>365	1121.00	2641.20	-1520.20	764.30	0.42	12.11	1%	7.64	0.12%
	Total	6312.70	5548.40	764.30	764.30	1.14	12.11			
2005/06	Jan-90	3651.50	1183.50	2468.00	2468.00	3.09	39.10			
	91-180	516.60	822.10	-305.50	2162.50	0.63	34.26			
	180-270	310.40	254.0	56.40	2218.90	1.22	35.15			
	271-365	713.20	647.60	65.60	2284.50	1.10	36.19	1%	22.85	0.36
	>365	1121.00	2641.20	-1520.20	764.30	0.42	12.11	1%	7.64	0.12%
	Total	6312.70	5548.40	764.30	764.30	1.14	12.11			
2006/07	Jan-90	6816.20	5038.90	1777.30	1777.30	1.35	8.29			
	91-180	2344.00	410.60	1933.40	3710.70	5.71	17.31			
	181-270	1684.90	505.80	1179.10	4889.80	3.33	22.81			
	271-365	3381.70	1408.90	1972.80	6862.60	2.40	32.01	1%	68.63	0.32
	>365	7212.50	11122.10	-3909.60	5953.00	0.65	13.77	1%	29.53	0.14
	Total	21439.30	18486.30	2953.00	23193.40	1.16	-			

Source: Annual Reports of Sampled Joint Venture Banks.

Here in the case of NABIL the period from 2001/02 to 2006/07 is taken for review of the sensitivity of market risk. Net financial assets (RSA-RSL) reprising in the short term maturity bucket ranging from 0-90days to 270-365 days was found positive expect in 2001/02 and 2005/06. In FY 2001/02, it was short fall RS 265.20 million reprised in 0-90days time bucket and Rs147.80 million reprised in 181-270 days time bucket in FY 2005/06. In the long term maturity bucket (>365 days) the GAP was negative in all the years by Rs 6759.40 million, Rs. 5326.60 million respectively. The CGAP or the interest rate sensitivity ratio to the total earning assets in the short term horizon was highest with 48.33% in FY 2001/02 and the 26.06% in the lowest with 26.06% in FY 2004/05. The CGAP ratio to the earning assets over the long term horizon was highest with 9.58% in FY 2002/03 and lowest with 0% in FY 2003/04 to 2006/07. It indicates the RSAs and RSLs reprising in short term maturity bucket are highly sensitive to interest rate, even though it is in decreasing trend. Comparatively the RSAs and RSLs of the bank reprising in long term horizon is low sensitive to interest rate. When interest rate changes by 1%, it impact on annual NII. In a raising interest environment the bank would profit over the 1year time horizon as it has maintained $CGAP > 0$ (positive) and vice-versa.

Table 4.16: Sensitivity of market risk of NABIL

		RSA(m)	RSL(m)	GAPi	CGAPi	RSA/RSL	CGAPiRatio	R(%)	NII(m)=	%change
				(RSA-RSL)m	(RSA-RSL)m		(CGAP/TotalRSAm(%))		CGAPXR	in NII
2003/04	Jan-90	5418.00	2715.00	2703.00	2703.00	1.10	11.05			
	91-180	5942.00	2917.00	3025.00	5728.00	2.04	23.42			
	181-270	3028.00	955.00	20736.00	7801.00	3.17	31.90			
	271-365	5553.00	470.00	5083.00	12884.00	11.81	52.68	1%	1128.84	0.53%
	>365	4515.00	15706.00	-11191.00	1693.00	0.29	6.92	1%	16.93	0.67%
	Total	24456.00	22763.00	1693.00	1693.00	1.07	6.92			
2004/05	Jan-90	6947.00	7045.00	-98.00	-98.00	0.99	-0.36			
	91-180	5972.00	2916.00	3056.00	2958.00	2.05	10.83			
	181-270	2199.00	916.00	1283.00	4241.00	2.40	15.53			
	271-365	7218.00	392.00	6826.00	11067.00	18.41	40.52	1%	110.67	0.41%
	>365	4974.00	13360.00	-8386.00	2681.00	0.37	9.82	1%	26.81	0.10%
	Total	27310.00	24629.00	2681.00	2681.00	1.11	9.82			
2005/06	Jan-90	10342.00	8076.00	2266.00	2266.00	1.28	7.69			
	91-180	6362.00	1294.00	5068.00	7334.00	4.92	24.90			
	181-270	3587.00	811.00	2776.00	10110.00	4.42	34.32			
	271-365	3494.00	852.00	2642.00	12752.00	4.10	43.29	1%	127.25	0.43%
	>365	5673.00	18425.00	-12752.00	-	0.31	0.00	1%	-	0.00%
	Total	29458.00	29458.00	-	-	1.00	0.00			
2006/07	Jan-90	12119.28	5486.81	6632.47	6632.47	2.21	19.33			
	91-180	7690.58	5843.49	1847.09	8479.56	1.32	24.71			
	181-270	3913.09	4516.29	-603.20	7876.36	0.87	22.95			
	271-365	3276.95	7323.85	-4046.90	3829.46	0.45	11.66	1%	38.29	0.11%
	>365	7314.97	11144.43	-3829.46	0.00	0.66	0.00	1%	0.00	0.00%
	Total	34314.87	34314.87	0.00	-	1.00	0.00			

Source: Annual Reports of Sampled Joint Venture Banks.

In the case of HBL FY2001/02 and 2002/03 is not available in data for the purpose of analysis of the sensitivity of Market risk. So the period from 2003/04 to 2006/07 is taken for review of the study. In this period net financial assets reprising in the short term maturity bucket was found positive except FY 2004/05 and FY 2006/07, which is shortfall by Rs 98 million reprising in 1-90 days time bucket and Rs 603.20m reprising in 181-270 days, Rs 4046.90 m reprising in 270-365 days respectively. In long term maturity bucket the gap was negative all years. The CGAP ratio or the interest rate sensitive to total earning assets of the short term horizon was highest worth 52.88% in FY 2003/04 and lowest with in (0.36%) in FY 2004/05. In long term horizon the highest CGap ratio is 9.82% in 2004/05 and lowest with in 0.0% in FY 2005/06 and FY 2006/07. In indicates the RSAs and RSLs reprising in short term maturity bucket and highly sensitive to interest rate comparative in the long term horizon.

Table 4.17: Sensitivity of market risk of HBL

		RSA(m)	RSL(m)	GAPi	CGAPi	RSA/RSL	CGAPiRatio	R(%)	NII(m)=	%change
				(RSA-RSL)m	(RSA-RSL)m		(CGAP/TotalRSAsm(%))		CGAPXR	in NII
2003/04	Jan-90	5418.00	2715.00	2703.00	2703.00	1.10	11.05			
	91-180	5942.00	2917.00	3025.00	5728.00	2.04	23.42			
	181-270	3028.00	955.00	20736.00	7801.00	3.17	31.90			
	271-365	5553.00	470.00	5083.00	12884.00	11.81	52.68	1%	1128.84	0.53%
	>365	4515.00	15706.00	-11191.00	1693.00	0.29	6.92	1%	16.93	0.67%
	Total	24456.00	22763.00	1693.00	1693.00	1.07	6.92			
2004/05	Jan-90	6947.00	7045.00	-98.00	-98.00	0.99	-0.36			
	91-180	5972.00	2916.00	3056.00	2958.00	2.05	10.83			
	181-270	2199.00	916.00	1283.00	4241.00	2.40	15.53			
	271-365	7218.00	392.00	6826.00	11067.00	18.41	40.52	1%	110.67	0.41%
	>365	4974.00	13360.00	-8386.00	2681.00	0.37	9.82	1%	26.81	0.10%
	Total	27310.00	24629.00	2681.00	2681.00	1.11	9.82			
2005/06	Jan-90	10342.00	8076.00	2266.00	2266.00	1.28	7.69			
	91-180	6362.00	1294.00	5068.00	7334.00	4.92	24.90			
	181-270	3587.00	811.00	2776.00	10110.00	4.42	34.32			
	271-365	3494.00	852.00	2642.00	12752.00	4.10	43.29	1%	127.25	0.43%
	>365	5673.00	18425.00	-12752.00	-	0.31	0.00	1%	-	0.00%
	Total	29458.00	29458.00	-	-	1.00	0.00			
2006/07	Jan-90	12119.28	5486.81	6632.47	6632.47	2.21	19.33			
	91-180	7690.58	5843.49	1847.09	8479.56	1.32	24.71			
	181-270	3913.09	4516.29	-603.20	7876.36	0.87	22.95			
	271-365	3276.95	7323.85	-4046.90	3829.46	0.45	11.66	1%	38.29	0.11%
	>365	7314.97	11144.43	-3829.46	0.00	0.66	0.00	1%	0.00	0.00%
	Total	34314.87	34314.87	0.00	-	1.00	0.00			

Source: Annual Reports of Sampled Joint Venture Banks.

In the case of SCBL, the period from 2001/02 to 2006/07 is taken for review of the sensitivity of market risk. In this period net financial asset (RSA-RSL) reprising in the short term maturity bucket was found positive except FY 2005/06, which is shortfall by Rs 11802 million reprises in 1-90 days time bucket. In the long-term maturity bucket (>365 days) the gap was negative except FY 2005/06 which is positive by Rs 3249 million. The CGAP ratio or the interest rate sensitive ratio to the total earning assets of the short term horizon was highest with 66.53% in FY 2003/04 and with in (45.79)% in FY 2005/06. In long term horizon, the CGAP ratio was 0% in all year, which shows the RSA and RSL of the bank reprising in the long term is low sensitive to interest rate.

Table 4.18: Sensitivity of market risk of SCBL

		RSA(m)	RSL(m)	GAPi (RSA-RSL)m	CGAPi (RSA-RSL)m	RSA/RSL	CGAPiRatio (CGAP/TotalRSAsm(%))	R(%)	NII(m)= CGAPXR	%change in NII
2001/02	Jan-90	9549.00	3602.00	5947.00	5947.00	2.65	32.24			
	91-180	2002.00	232.00	1770.00	7717.00	8.63	41.84			
	181-270	2104.00	157.0	1947.00	9664.00	13.40	52.40			
	271-365	1579.00	310.00	1269.00	10933.00	5.09	59.28	1%	109.33	0.59%
	>365	3210.00	14143.00	-10933.00	-	0.23	0.00	1%	-	0.00%
	Total	18444.00	18444.00	0.00	-	1.00	0.00			
2002/03	Jan-90	10188.00	1860.00	8327.00	8327.00	5.48	39.65			
	91-180	1995.00	380.00	1616.00	9943.00	5.25	47.35			
	181-270	3489.00	579.0	2911.00	12854.00	6.03	61.21			
	271-365	1999.00	347.00	1652.00	14506.00	5.76	69.07	1%	145.06	0.69%
	>365	3330.00	17835.00	-14506.00	-	0.19	0.00	1%	0.00	0.00%
	Total	21001.00	21001.00	-	-	1	0.00			
2003/04	Jan-90	11677.00	2348.00	9329.00	9329.00	4.97	39.46			
	91-180	3416.00	401.00	3015.00	12344.00	8.52	52.21			
	181-270	1604.00	636.00	968.00	13312.00	2.52	56.31			
	271-365	2586.00	170.00	2416.00	15729.00	15.21	66.53	1%	157.29	0.67%
	>365	4359.00	20088.00	-15729.00	-	0.22	0.00	1%	-	-
	Total	23642.00	23642.00	764.30	764.30	1.14	12.11			
2004/05	Jan-90	8871.00	4943.00	3928.00	3928.00	1.79	17.94			
	91-180	2250.00	137.00	2113.00	6041.00	16.42	27.59			
	181-270	3163.00	-	3163.00	9204.00	-	42.04			
	271-365	3449.00	790.00	2659.00	11863.00	4.37	54.18	1%	118.63	0.54%
	>365	4162.00	16024.00	-11862.00	0.00	0.26	-	1%	0.00	0.00%
	Total	21895.00	21894.00	1.00	1.00	1.14	0.00			
2005/06	Jan-90	10930.00	22732.00	-11802.00	-11802.00	0.48	45.79			
	91-180	2517.00	186.00	2331.00	-9471.00	13.53	-36.74			
	181-270	2896.00	152.0	2744.00	-6727.00	19.05	-26.10			
	271-365	4281.00	803.00	3478.00	-3249.00	5.33	-12.60	1%	-32.49	0.13%
	>365	5152.00	1903.00	3249.00	-	2.71	0.00	1%	0.00	0.00%
	Total	25776.00	25776.00	-	-	1.00				
2006/07	Jan-90	8686.00	7532.00	1154.00	1154.00	1.15	4.04			
	91-180	3456.00	539.00	2917.00	4071.00	6.41	14.24			
	181-270	4714.00	845.0	3869.00	7940.00	5.58	27.77			
	271-365	5687.00	552.00	5135.00	13075.00	10.30	45.72	1%	130.75	0.48
	>365	6054.00	19129.00	-13075.00	-	0.32	-	1%	0.00	0.00
	Total	28597.00	28597.00	-	-	1.00	-			

Source: Annual Reports of Sampled Joint Venture Banks.

Among the sampled JVBs the CGAP ratio or the interest rate sensitively ratio to the total earning assets in short horizon was highest with 69.07% in FY 2002/03 and lowest with 45.79% in FY 2005/06 of SCBL CGAP ratio in short term horizon is in decreasing trend except 2005/06. In case of EBL the ratio in short term horizon is in decreasing trend except FY 2004/05. In case of HBL also is in increasing trend except 2004/05.

In short term horizon, the CGAP trend of NABIL and SCBL is in decreasing trend except FY 2005/06 and FY 2002/03 respectively. In EBL had also, decreasing trend except FY 2004/05. Among the sampled JVBs, the CGAP trend in the short run is in decreasing trend. Hence it can be concluded the bank less asset sensitive in future. Since the CGAP trend in long term horizon is zero in case of SCBL and NABIL bank also zero concluding 4 years, In case of HBL, had also zero concluding 3years. Hence it can be concluded the bank is low sensitive to interest rate in the long horizon.

4.2. Major Finding

The major findings of the study of financial performance analysis of sampled joint venture banks in the framework of CAMELS are as follows.

4.2.1 Among the sampled Joint ventures banks, the capital adequacy ratio is maximum of 17.39% (in SCBL) and minimum of 10.65% (in HBL). Throughout the study period all banks met the capital adequacy ratio as directed by NRB only HBL has not met the minimum capital requirement as directed by NRB in the FY 2003/04.

4.2.2. The core capital adequacy ratio of sampled joint venture banks is maximum of 13.92% (in SCBL) and minimum of 6.55% (in HBL). In all the six years of the review period, the core capital adequacy ratio is above the NRB standard. Thus it is found that

the core capital adequacy of joint venture banks is adequacy and sufficient. It shows the protection and security to creditors and depositors and financial soundness of the joint venture banks.

4.2.3 Over the six studies year period, EBL, HBL, NABIL and SCBL have with the boundary of NRB standard (not more than core capital of banks). Among the sampled joint venture banks the supplementary adequacy ratio is maximum of 5.01% in FY2001/02(in HBL) and minimum of 1.10% (in NABIL). It shows that joint venture banks were running with adequate capital.

4.2.4 The past due loan to total loan of sampled joint venture banks decreasing trend over the study period. All the ratios are below the industry average. Industrial benchmark is not appropriate justifiable due to high proportion of NPL of two biggest highest government banks. It is found that the past due loan to total loan ratio of the joint venture banks have below 5% except HBL and NABIL But they have decreasing ratio of past due loan to total loan every year. It improving the nonperforming loan ratio year by year .It shows the non performing assets of joint venture banks on the average is at satisfactory level, but they are far below the aggregate percentage of non performing assets of commercial banks

4.2.5. The ratio loan loss reserve ratio of NABIL and SCBL shows decreasing trend over the study period. The maximum ratio of 7.77% in HBL (in FY 2002/03) and minimum of 2.36% if EBL (FY 2001/02). Through out the study period the ratio of EBL and HBL is fluctuating trend.

4.2.6 The earning per employee ratio of joint venture banks have maximum ratio of in rupees was 2044867.39(in SCBL) and minimum of Rs 393306.20 (in EBL). EPS ratio is in fluctuating

trend over the study period except EBL. Although EBL has EPE ratio is least among others banks, its ratio is increasing trend over the study period. That indicates symbol of good Management. Overall EPS ratio of JVBs shows relatively satisfactory level.

4.2.7 The total operating expenses to total operating revenues of sampled joint venture banks the maximum ratio of 76.38% in FY 2002/03(in EBL) and minimum is 43% in 2005/06 (in SCBL). SCBL and NABIL banks have TOE to TOR ratio were in decreasing trend except final year but EBL and HBL have in fluctuating trend. The overall ratio implies that all JVBs in decreasing expenses with respect to income with symbol of good management quality.

4.2.8 The ROE ratio of HBL and NABIL are in fluctuating trend during the study period. Like wise EBL has the ROE ratio is in increasing trend except FY 2004/05. But ROE of SCBL has controlling in decreasing except FY 2005/06 over the study period .Above mentioned Banks the maximum of ROE is 38.79% in FY 2001/02 (in SCBL) and minimum of 10.36% in FY 2001/02 (in EBL) The observed value of ROE ratio is above the 15% benchmark except in FY 2001/02 all over the study period. ROE ratio of EBL is in increasing trend which indicates that the earning return satisfactory for its equity shareholders than other banks.

4.2.9. The ROA ratio of HBL and SCBL are in fluctuating during the study period. Likewise the ratio of EBL is up and down. Where as it is in increasing trend except in final two years of NABIL. The maximum ratio is 3.05% in FY2004/05 (in NABIL) and minimum of 0.91% in FY 2002/03(in HBL). NABIL bank and SCBL have maintained strong position regarding the ROE. But EBL and HBL have less than 1.5% FY2001/02 to FY2003/04

except final three years of study period. In general most of the banks are in increasing trend of ROA, which shows the banks are utilizing assets to generating profit.

4.2.10 The EPS ratio of NABIL bank is in continuously increasing trend and EBL has also in increasing trend except second year of over the study period. Whereas the EPS of HBL has in continuously decline from the initial FY 2001/02 to FY 2004/05 and slightly increase in last final two years. SCBL has in fluctuating trend of EPS ratio. Among the JVBs the maximum ratio of EPS is 175.84% in FY 2005/06 (in SCBL) and minimum ratio is 29.90% in FY 2002/03 (in EBL) in over the study period .The EPS ratio of HBL and NABIL and EBL is in increasing trend which shows the profitability position of these banks but SCBL has declining in last year due to financial crises in word.

4.2.11 The Net Interest Margin rate of sampled JVBs have maximum was 5.19% in FY 2004/05 (in NABIL) and minimum of 2.75% in FY 200/03 (in EBL). SCBL and EBL have in fluctuating trend but HBL and NABIL bank have in increasing trend except final year and final two years respectively. The observed ratio of NIM in sampled JVBs is above the benchmark of except EBL in FY 2002/03 i.e. 2.75% in over the study period. It includes that banks good manage assets and liabilities of except EBL in FY 2002/03. In aggregate the NIM ratio is better.

4.2.12. The total loan to deposit ratio of the HBL is in increasing trend but other banks EBL, SCBL, NABIL have been fluctuating trend in the review period. From the analysis of data the loan to deposit of EBL has above the industry average and NABIL bank has also above the industry average except first two years and final year. Others two banks have below the industry average. It implies that NABIL and EBL have proper utilization of fund

where as other two banks have more fund it needs to investment. They will not face the liquidity problem in future.

4.2.13 NRB balance to total deposit ratio of JVBs have been fluctuating trend over the study period .The maximum ratio of NRB balance to total deposit ratio of 13.36 in FY 2002/03 (in EBL) and minimum of 1.65% in FY2005/06 (in NABIL). Thus it is found from the analysis of data that the NRB balance to total deposit ratio of sampled JVBs have less than industry average except EBL in FY 2002/03, FY 2004/05 and FY 2005/06. This implies that EBL has strictly following the NRB directives in respect to balance must held in NRB that other banks.

4.2.14 Cash in vault to total deposit ratio of EBL and HBL have up and down over the study period, where as SCBL has also in fluctuating trend .In the case of HBL, the ratio of Cash in Vault to total deposit ratio is declining year by year from the beginning fiscal year to at the end of fiscal year of study period. Cash in Vault to total deposit ratio of sampled JVBs compared with industry average shows below the industry average except NABIL in FY 2003/04. It indicates that bank is running with the inadequate liquidity to meet its short term obligation. Despite Banks were maintained only the adequate level of cash in vault to minimize the risk.

4.2.15 Among the sampled JVBs the CGAP ratio or the interest rate or the interest rate sensitivity ratio to the total earning assets in short horizon was highest with 69.07% in FY 2002/03 and lowest with 45.79% in FY 2005/06 of SCBL. In NABIL bank CGAP ratio in short term horizon was decreasing trend except 2005/06. In case o EBL, the ratio in short term horizon was in decreasing trend except FY 2004/05. HBL is also in increasing

trend except FY 2005/06 and FY 2002/03 respectively. In short term horizon, the CGAP trend of NABIL and SCBL was in decreasing trend except FY 2005/06 and FY 2002/03 respectively. In EBL had also in decreasing trend except FY 2004/05. Among the sampled JVBs, the CGAP trend in the short run is in decreasing trend. Hence it can be concluded the bank less asset sensitive in future. Since the CGAP trend in long term horizon is zero in case of SCBL and NABIL bank also zero concluding 4 years. In case of HBL, had also zero concluding 3 years. Hence it can be concluded the bank is low sensitive to interest rate in the long horizon.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

This Chapter is divided into three sections-Summary, Conclusions and Recommendations. The first section summarizes the whole study, the second draws the conclusion and the last one forwards the recommendations.

5.1 Summary

For the objective of the study is to analyze the financial performance of joint venture banks in Nepal in CAMELS framework. This study covered six years data following a descriptive and analytical research design. EBL, HBL, NABIL and SCBL were sampled as a study unit with using convenience sampling method. This study is based on the secondary data. Annual report and financial statements of the respective banks are major sources of data of study. CAMELS is a common technique of evaluating the financial performance of commercial banks. In this technique consists of six factors-Capitals Adequacy, Assets Quality, Management Quality, Earning Quality, Liquidity Position, and Sensitivity to market risk. These six individual factors are typically evaluated on a ration scale. The CAMELS rating ranges from 1 to 5, lower rating representing a better and well managed firm. It was originally used by the Federal Reserve Bank, the Federal Deposit Insurance Corporation (FDIC) and the comptroller of the Currency (OCC) and other financial agencies to provide a convenient summary of bank condition at the time of an

exam. In Nepalese context, supervision department of NRB is using CAMELS rating to find out financial health of commercial banks.

The specific objectives of the study were to analyze the capital adequacy, non-performing assets, loan loss reserve ratio, management quality, earning quality, liquidity position and sensitivity to market risk of sampled JVBs during six years period from FY 2001/02 to FY 2006/07. Various theories relating to the performance evaluation of commercial banks were reviewed in order to build up the conceptual foundation and reach to the clear destination of research. During the research the areas that formed part of the research review were, historical development of banking industry in Nepal, Concept of commercial banks, function of commercial banks, supervisory and monitoring system of the NRB methods of Banking supervision, financial performance analysis framework, components of CAMELS, with NRB directives according to bank and financial institution Act 2063, New Basel Capital Accord. Besides these review of journals, articles and review of dissertations were carried out under research review.

In analysis the ratio is comparison with NRB standard, industrial average. The capital adequacy ratio of all sampled JVBs were generally above the NRB standard during the study period .which shows the banks were running with adequacy capital. The core capital adequacy ratio above the NRB standard of JVBs indicates the protection and security of stakeholders and financial soundness of the banks. Whereas supplementary capital adequacy ratio was as per NRB standard in all the study period which leads to conclude that the sampled JVBs were running with adequate capital. The non-performing to total loan ratios are below the industry average and international standard of 5%, which shows strong position of asset quality. The management quality ratio: the earning per employee was fluctuating trend. Although EBL has EPE ratio is the least among other

banks, its ratio is increasing trend over the study period. It indicates good management. Overall EPE ratio of JVBs shows relatively satisfactory level. Whereas the total operating expenses to total operating revenue of JVBs ratios were decreasing expenses with respect to income which indicate good symbol of good management quality. The earning ratios like ROE, ROA and EPS show the profitability of JVBs and they are not so weak during the study period. Profitability of NABL, SCBL is above the industry average but the EBL and HBL have below the industry average. In general EPS ratio is in increasing trend. The NIM ratio was above the bench mark except EBL. It indicates that banks manager done a good job of assets and liabilities except EBL. The liquidity position of SCBL and HBL is better than other two banks. The LDR position of JVBs shows that they have stored high level of liquidity. Their high liquidity is affecting financial health adversely by deteriorating their profitability. Thus, with a view point of liquidity problems the health of JVB is looked like a little bit unhealthy. JVBs were low sensitive to interest rate in long horizon but high sensitive to interest rate in short term horizon due to CGAP ratio to earning assets is high.

5.2 CONCLUSIONS

Based on the findings following conclusions have been drawn:

- 5.2.1. The total capital adequacy ratio of JVBs have maintained NRB standard over the study period only HBL has not maintained the ratio in FY 2003/04. It can be concluded that the capital fund of joint ventures banks are sound and sufficient to meet the banking operation as per NRB Standard except HBL. This shows that HBL do not strictly follow the NRB standard in that year.
- 5.2.2. Core capital adequacy ratio of joint venture banks were above the NRB standards in the review period. It reveals that the joint

ventures banks have adequate amount of internal sources or core capital in the past six years and they are strictly followed by NRB standard. In this point of view the banks is financially sound and strong.

5.2.3. Supplementary capital ratio of joint venture banks were with in the boundary of NRB standard over the study period. Which supports to draw the conclusion of the supplementary capital of the JVBs were running with adequate capital and have strictly followed the NRB directives. In the point of view of JVBs were sounds in Nepal.

5.2.4. The non-performing loan to total loan of JVBs is below the industry average. The non-performing loan ratio was decreasing over the study period. Industrial bench mark is not appropriate of NPL of two biggest government banks. The ratio of non-performing loan to total loan of JVBs has below 5% except HBL and NABIL. But they are improving the recovers the international standard i.e. 5% final years. It can be concluded that non performing loan ratio of JVBs on the average is at satisfactory level but they are far below the aggregate percentage of non performing assets of commercial banks. The loan loss reserve ratio of SCBL and NABIL has decreasing trend where as other two banks ratio have fluctuating trend.

5.2.5. Among the JVBs EPE ratio the maximum in SCBL and minimum of EBL. The EPE ratio is fluctuating trend except EBL. Although EBL has EPS ratio is least among other banks, its ratio is increasing trend over study period. That indicates symbol of good management. Overall ratio of JVBs shows relatively satisfactory level.

5.2.6. The decreasing trend of total operating expenses to total operating revenue ratio shows that the bank operate efficiency.

In any case, the decreasing trend will positively affect the profitability in future.

5.2.7. The decrease trend of ROE shows that the return per unit of equity invested by the shareholders is in decreasing year by year. Among the sampled JVBs have ROE ratio is satisfactory level.

5.2.8. The increasing trend of ROE ratio concludes that the quality of assets and their efficiency to generate return is increasing. In general, ratio of ROE is in increasing all over the study. This shows that the ability of the management to utilize banks assets to generate profits is in increasing.

5.2.9. The increasing trend of EPS indicates that the returns flowing to the banks owner in increasing. It means the market value of the share is in increasing.

5.2.10. The increasing trend of Net interest margin shows that the banks have raised funds with liabilities that have low interest costs and acquired assets with high interest income. It can be concluded that the bank manager has done a good job of assets and liabilities management during the study period.

5.1.11. The loan to total deposit ratio were below the industry average except EBL and NABIL. It can be concluded that NABIL and EBL have proper utilization of fund. Whereas other two banks have more fund it needs to investment. They will not face the liquidity problem in future.

4.1.12 The NRB balance to total deposit ratio is below the industry average except EBL in FY 2002/03, FY 2004/05 and FY 2005/06. It can be concluded that HBL, NABIL and SCBL have not maintained sufficient amount of balance much held in NRB except EBL.

5.2.13 Cash in vault to total deposit ratio was fluctuating trend and below the industry average ratio. This indicates that the banks

were running with the inadequate liquidity to meet its short term obligation. Higher the cash in vault will be in risk so sample JVBs maintain adequate level of cash in vault to minimize the risk.

5.2.14. Among the sampled JVBs the CGAP trend in the short run in decreasing trend. The banks in later years were keeping the mismatch (RSA-RSL) lower in the short run. This would make the banks were less sensitive in future. Since the CGAP trend in long term horizon is zero all banks. Hence it can be concluded the banks were low sensitive to interest rate in the long horizon but highly sensitive to interest rate in short term horizon due to CGAP ratio to earning assets is high.

5.3. RECOMMENDATIONS

Based on the conclusion drawn earlier, the following recommendations have been forwarded to improve the financial performance of JVBs in Nepal.

5.3.1. The total capital adequacy ratio of JVBs has sufficient as per the NRB Standard except HBL. It has not met the minimum capital requirement as directed by NRB in the FY 2003/04. So the recommendation is provided to strictly follow the NRB directives.

5.3.2. The non-performing loan to total loan of JVBs is in decreasing trend over the study period it signals good improving the quality of assets years by years. Although JVBs perform satisfactory level. It suggests that to be sincere while disburse loan and to do effective follow up for recovery of non-performing loan. But the ratio is far below the industry average in all the over the study period. It suggest that banks are recommended to maintain the below international standards. The loan loss reserve ratio of the

EBL and HBL need to maintain lower the proportion of loan loss provision.

- 5.3.3. Total operating expenses to total operating revenues ratio of JVBs have decreasing trend but EBL and HBL has in fluctuating trend during the study period. So it is recommended to those banks try to reduce the operating expenses.
- 5.3.4. The earning ratios of the JVBs like Return on Assets, Earning per Share, Net Interest margin are increasing trend but Return on Equity is in fluctuates trend. During the study period the earning quality ratio of JVBs is not so weak. Thus it is recommended that it need to maintain this level. Every bank maintains their position in competitive environment to need increase profitability.
- 5.3.5. The total loan to deposit ratio of SCBL and HBL have store high level of liquidity than other two banks. It need to investment for proper utilization of ideal fund.
- 5.3.6. The cash in vault to total deposit ratio of JVBs shows below the industry average which need to be monitored and complied in accordance with the NRB requirements.
- 5.3.7. JVBs are highly sensitive to interest rate in short term horizon due to CGAP ratio to interest rate is high. But CGAP ratio on long to horizon is zero. So low sensitive to interest rate. Since positive CGAP is beneficial when interest rate expected to rise and conversely negative CGAP is beneficial when interest rates are expected to fall, the bank should minimize the mismatch of short term risk sensitive assets in order to minimize sensitivity to prevailing falling interest rates scenario.

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Appendix 1: List of Commercial Banks in Nepal

S.N.	Names	Operation Date in A.D
1	Nepal Bank Ltd.	1937-11-15
2	Rastriya Banijya Bank	1966-01-23
3	NABIL Bank Ltd. # *	1984-07-16
4	Nepal Investment Bank Ltd.	1986-02-27
5	Standard Chartered Bank Nepal Ltd. # *	1987-01-30
6	Himalayan Bank Ltd. # *	1993-01-18
7	Nepal SBI Bank Ltd. #	1993-07-07
8	Nepal Bangladesh Bank ltd. #	1993-06-05
9	Everest Bank Ltd. # *	1994-10-18
10	Bank of Kathmandu Ltd.	1995-03-12
11	Nepal Credit and Commerce Bank Ltd.	1996-10-14
12	Lumbini Bank Ltd.	1998-07-17
13	Nepal Industrial and Commercial Bank Ltd.	1998-07-21
14	Machhapuchchhre Bank Ltd.	2000-10-03
15	Kumari Bank Ltd.	2001-04-03
16	Laxmi Bank Ltd.	2002-04-03
17	Siddhartha Bank Ltd.	2002-12-24
18	Agriculture Development Bank Ltd.	2006-03-16
19	Global Bank Ltd.	2007-01-02
20	Citizen International Bank Ltd.	2007-06-21
21	Prime Commercial Bank Ltd.	2007-09-24
22	Sunrise Bank Ltd	2007-10-12
23	Bank of Asia Nepal ltd.	2007-10-12
24	Development Credit Bank Ltd.	2001-01-23
25	NMB Bank Ltd.	1996-11-26
26	Kist Bank Ltd.	2003-02-21

Sources: <http://www.nrb.org.np>
 # Population of the Study
 * Sample of the Study