

# **CHAPTER-I**

## **INTRODUCTION**

### **1.1 General Background**

One of the most important factors that show the overall condition of a country is the economic factor. The countries with well economic condition are supposed to be developed, much more civilized with high literacy rate and have their say in the world affairs. America, England, Germany, Canada, and Japan etc are the obvious examples. On the other hand, the countries with deplorable economic condition have their own problems of feeding their nationals, providing education, uplifting the people above the poverty line, maintaining the deficit budget, develop the economic growth together with banking sector etc.

Though the process of economic development depends on various factors, economists have almost one opinion that capital formation and its proper utilization plays a vital role in economic development. "The increase in capital has always been a sort of prime mover in the process of material growth and the rate of capital formulation has been the principal variable in setting the overall pace of economic development." In this regard the network of well-organized financial system of the country has a great importance. Financial institutions collect the scattered idle money from door to door and purse to purse and use in commercial and economic activities to develop the various sectors and contribute to the economic development of the country.

Nepalese financial sector is comprised of both organized and unorganized sectors. The Nepalese organized financial sector is comprised banking and non-banking sectors. The banking sector includes the commercial banks, the development banks, finance companies, micro-credit development banks, cooperatives. NGOs and postal saving offices also undertake limited banking

and financial services. Non banking financial sector comprises funds and trusts such as Provident Fund, Mutual Fund and Citizen Investment Trust.

Among these organized financial intuitions, the banks are the prime ones. A banker or bank is a financial institution that acts as a payment agent for customer and borrows and lends money .The functions of banks are also increasing day by day in the globalized situation. And the banks are being more competent with their new services. They are established focusing on particular sector.

The commercial banks are established to support the country's commercial sector. The commercial banks collect savings and provide loans to the productive sectors. Commercial banks also provide overdraft facilities to the interested clients, exchange the foreign currency, transfer the money from one part to other, provide security to invaluable and also play the role of the trustee.

Now there is mushrooming of commercial and development banks together with other financial institutions that play a vital role to strengthen the country's economy.

## **1.2 History of Banking in Nepal**

The history of banking in Nepal is relatively short. Actually the establishment of Tejarath Adda in 1933A.D. was the formal beginning of banking in Nepal. It was established in Kathmandu and used to provide facilities of banking especially on the collateral of gold and silver. It can be regarded as the foundation of the development of modern banking in Nepal.

Banking in true sense of term started with the inception of Nepal Bank Ltd on 30<sup>th</sup> Kartik 1994 B.S. It was the join venture of government and private individuals. Nepal Rastra Bank was established in 2013 to make the banking system more systematic and to help the government formulate monetary policies and to develop the financial sector.

As Nepal adopted planned development program in the mid 50s , the nation felt dearth of financial resources. Existing banking with only one commercial bank was not sufficient to meet the growing needs of the country. Therefore, the need to establish another commercial bank was felt and Rastriya Banijya Bank was established. The process in the banking system in Nepal was felt after the establishment of the Rastrya Banajya Bank a state-owned commercial bank was established in 2002BS to play a major role not only in domestic banking services but also in the foreign trade. In 2024 BS, Agricultural Development Bank was established to develop and support agricultural sector financially.

Despite all these efforts of the government, financial sector was found sluggish. Banking services to the satisfaction of customers was the need of hour. However, the inception of Nepal Arab Bank Ltd.(now known as NABIL Bank Ltd in 2041BS as the joint venture bank from private sector proved to be a milestone in the history of banking. Due to the financial liberalization policy undertaken in the fiscal year1987/88, two other joint venture banks as Nepal Indosuez Bank Ltd (now known as Nepal Investment Bank Ltd) and Nepal Grindlays Bank Ltd (now known as Standard Chartered Bank Ltd ) were established in 2042BS and 2043BS respectively. Then there developed a trend of mushrooming the commercial banks in Nepal especially after the restoration of democracy in 2046BS. Today there are 25 commercial banks. The twenty fifth is NMB Bank and KIST is going to be the twenty sixth.

### **1.3 Brief Introduction of EBL, MBL & KBL**

Everest Bank Ltd was registered under the company act 1964 on 19 Nov 1993 (2049/09/03) and started its banking service from 16 Oct1994 ( 2051/07/01 ) with its Head Office in Lajimpat, Kathmandu. The promoters of this bank decided to join the hands with the Indian Bank and entered into join venture agreement in January 1997 with Panjab National Bank of India which is one of the leading bank of India having over hundred years experiences. It is the ninth

commercial bank in Nepal. The bank has been providing modern banking facilities such as Internet Banking , Mobile Banking, Any Branch Banking, ATM/Debit Card, Travellers Cheque and many more services to its thousands of customers and investors. It has been providing modern facilities of banking from more than 27 different branches including the Head Office. Besides these branches, the bank has been providing services through its extension counters in different places to facilitate the governmental works.

Panjab National Bank of India has 20% share and it has undertaken the management responsibility under the technical support agreement, and out of the 80% share the promoters have 50% and general public have 30% share. The main purpose of the bank is to provide professional banking services to the various sectors to contribute to the economic development of the country. As per the annual report 2064/65, its paid up capital is 490 million rupees Machhapuchchhre Bank was established in 1998. It started its banking service from Pokhara where its Head Office is located. As per the annual report 2064/65, its paid up capital is 900 millions. It is the fourteenth Commercial Bank in Nepal.MBL is the pioneer in introducing the latest technology in banking sector in Nepal. It is the first bank to introduce centralized banking software named GLOBUS BANKING SOFTWARE developed by Temenos NB, Switzerland.

The bank been providing modern banking facilities such as Internet Banking , Mobile Banking, Any Branch Banking, ATM/Debit Card, Travellers Cheque and many more services to its more than 80,000 customers and 12,000 investors. It has been providing modern facilities of banking from more than 15 different branches including the Head Office in Pokhara and Corporate Office in Kathmandu. It is an ISO certified bank in Nepal. Kumari Bank Ltd as the fifteenth commercial bank started its banking service from 21 Chaitra 2057 (April 03,2001) with the objective of providing competitive and modern banking service. As per the annual report 0264/65, the paid up capital is 1070 million rupees. It has been providing modern banking services such as

Internet Banking ,SMS Banking, Any Branch Banking, ATM/Debit Card, Travellers Cheque and many more services to its more than 80,000 customers and 12,000 investors. It has been providing modern facilities of banking from more than 14 different branches including the Head Office in Kathmandu.

KBL has been using the latest GLOBUS SOFTWARE developed by Temenos NV, Switzerland. The arrangement of centralized data base system enables its valued customers to make highly secured transactions regardless of having account in any branch. Besides 365 days banking facility, Visa Electron and Dollar Debit Cards are the easy access of customers to the required time not only in Nepal and India but also in VISA Network all over the world.

#### **1.4 Statement of Problem**

The deplorable economic condition due to political instability is a great problem the banking sector is facing in Nepal. The unstable political and economic condition has limited the investment opportunities and increased risk. At the same time the investors are always reluctant to risk. So there is enough idle money in the banks as deposits. At the same time there are a very few profitable sectors where a bank can invest with low risk. So the banks are paying the depositors very low interest rate and they are encouraging people to take loan on low interest rate and easy repayment scheme. This has been one of the reasons for the deceleration of the pace of economic development of the country.

Another problem facing by the banking sector is the poor investment policy of the commercial banks. The better performance of a bank depends on the successful utilization of the collected resources i.e. deposits. Successful formulation and implementation of good investment policy is the prime requisite for the successful performance of a commercial bank.

Actually, commercial banks are not properly utilizing their resources , that is making loan and advances and lending for profitable project. This is due to the poor knowledge on financial risk, interest rate risk , business risk or

poor assets management .Granting loan against insufficient deposit, overvaluation of goods, high percentage of non performing loan, risk avoiding decision regarding loan recovery and negligence in recovery of overdue loan are some of the basic lapses and the result of unsound investment policy sighted in the banks. At the same time, there are unwanted political pressures to accept these types of loans. These type of conditions will definitely lead the commercial banks to the position of liquidation. Government owned banks are the perfect examples for this. These reasons have created the perfect environment for mushrooming of private commercial banks. Still , only a handful of commercial banks have satisfactory investments that are good performing loans.

Mushrooming of commercial banks is also a problem for the banking sector . Due to the present political and economic condition, an introduction of a new bank is just sharing the pie rather than increasing the size of the pie. Actually, Nepalese market is almost saturated. This has led the banks towards the intense competition. This has led to unfair competition, weak investment polices and above mentioned other problems. Therefore this study deals with the analysis of investment performance of the commercial banks with reference to assets management, profitability, growth ratio, risk position to recommend to sort out the above mentioned problems.

### **1.5 Objectives of the Study**

The major objective of the study is to compare the investment performance of commercial banks with reference to Everest Bank Ltd, Kumari Bank Ltd and Machapuchchhre Bank Ltd.

The specific objectives of the study are:

- ) to study and evaluate the liquidity ratio of EBL, KBL & MBL;
- ) to examine the assets management ratio of the banks under study;
- ) to analyze the profitability and risk ratio of the banks;

- ) to analyze the growth ratio with respect to total deposit, total investment and net profit; and
- ) to provide suggestions to the concerned on the basis of findings for the better improvement of the banks.

### **1.6 Significance of the Study**

Though there is a trend of mushrooming the commercial banks, there is less availability of research work, journals and articles published in the field of banking sector. So, this research effort tries to bring out the comparative analysis on investment performance of EBL, KBL& MBL so that:

- ) there is healthy competition among them;
- ) it becomes a guide line to other banks and financial intuitions ;
- ) it recommends to bridge the gap between deposits and investments;
- ) it predicts the future of banks on the basis of the findings;
- ) it gives a guide line to invest on the banks as shareholders; and
- ) it will be useful to other researchers, shareholders, academicians, newly established banks and financial institutions etc

### **1.7 Limitations of the Study**

Though there are various factors related to the investment performance, this research study is confined to the study of liquidity, assets management, profitability, growth rate and risk position based on the secondary data of five years. Therefore the findings of the study can't be generalized.

### **1.8 Organization of the Study**

This study is divided into 5 chapters which are:

## **Chapter I: Introduction**

This chapter includes the general background, statement of the problem, objectives of the study, significance of the study, limitations of the study and organization of the study.

## **Chapter II: Review of Literature**

This chapter deals with review of literature. This includes conceptual or theoretical review of books, reports, articles and thesis.

## **Chapter III: Research Methodology**

This chapter deals with the research methodology of the study. This includes the introduction, research design, data collection procedure and tools for analysis which includes financial tools and statistical tools.

## **Chapter IV: Data Presentation and Analysis**

This chapter deals with the presentation and analysis of data collected using different financial and statistical tools which includes the analysis of financial ratio, the analysis of statistical tools and major findings of the study.

## **Chapter V: Summary, Conclusion and Recommendations**

This chapter sums up the study, which deals with the outcome of the study. This chapter highlights the summary and conclusion of the study and recommends some suggestions.

## **CHAPTER -II**

### **REVIEW OF LITERATURE**

This chapter is basically concerned with review of literature relevant to the investment policy and performance of commercial banks. It is based on the past knowledge or the past publication of books, reports, articles, thesis etc.

#### **2.1 Theoretical Review**

Banks are those institutions which accept deposit from the public and in turn provide credit to trade, business and industry that directly make a responsible impact on the economic development of a country. To collect fund and utilize it in good investment is a risky job. Ad-hoc investment decision leads the bank out of the business there by downing the economic growth of a country. Hence, sound investment policy of a bank is another secret of a successful bank.

“A sound investment policy of a bank is such that its funds are distributed in different types of asset with good possibility on the one hand and provides maximum safety and security to the depositors and banks on the other hand. Moreover, risk in banking sector tends to be concentrated in the loan portfolio. When a bank gets into serious financial trouble, its problem usually springs from significant amount of loans that have become uncollectible due to mismanagement, illegal manipulation of loans, misguided lending policy or unexpected economic downturn. Therefore, the bank’s investment policy must be such that it ensures that it is sound and prudent in order to protect public funds.” ( Baidhya, 1997: p 46-47 )

“Investment is any vehicle into which funds can be placed with the expectation that will preserve or increase in value and generate positive returns.” (Gitman & Joehnk., 1990: p1 )

It means that investment is the instrument which is essential for the banks to increase profitability.

“The investment (credit) policies of banks are conditioned, to great extent by the national policy framework, every banker has to apply his own judgment for arriving at credit decision, keeping of course his banker’s credit policy also in mind.” (Singh & Singh, 1983: p 2 ).

As per the definition, government and central banks have to make a sound policy about the investment policies of commercial banks.

“Investment, in its broadest sense, means the sacrifice of certain present value for (possible uncertain) future value”. (Gordon, William & Jeffery, 1988: p1 ).

Two different attributes are generally involved, time and risk. The sacrifice takes place in the present and is certain. The reward comes later, if at all and the magnitude is generally uncertain. In some cases, the element of time predominates such as government bond. In other cases, risk is the risk dominant attribute such as call option on common stock. So, they have presented their views in the books that bank should look for the safe and less riskier investment.

“ Commercial bank is a cooperative which accepts demand, deposits subject to check and make short-term loans to business enterprises regardless of the scope of its other services.” (American Institute of Banking, 1972: p 345 ).

“The investment objective is to increase systematically the individual wealth, defined as asset minus liabilities. The higher the level of desired wealth the higher must be received. An investor seeking higher return must be willing to face higher level of risk.” (Cheney & Moses, 10<sup>th</sup> ed: p3 ).

Commercial Bank Act 2031 has defined it as “ commercial bank means a bank which operates currency exchange transactions, accepts deposits, provide loan and performs dealing relating to commerce and other than those banks which have been specified for the cooperative, agriculture, and industry of likely any other specific objective.”

## **2.2 Review of Articles and Reports**

Dr. Sunity Shrestha in her article, “Lending operation of commercial banks of Nepal and its impact on GDP” (1997 ) has presented with the objectives to make an analysis of contribution of commercial banks’ lending to the Gross Domestic Product (GDP) of Nepal. She has set a hypothesis that there has been positive impact of lending of commercial banks to the GDP. In research methodology, she has considered GDP as the dependent variable and various sectors of lending viz agriculture, industrial, commercial service and social sectors as independent variables. A multiple regression technique has been applied to analyze the contribution.

F. Morris in his discussion paper “Latin America’s Banking System in the 1980s” (1990) has concluded that most of the banks concentrated on compliance with central bank rules on reserve requirement, credit allocation and interest rate. While analyzing loan portfolio quality, operating efficiency and soundness of bank investment management has largely been overlooked. The huge losses now found in the bank’s portfolio in many developing countries are testimony to the poor quality of this oversight investment function.

K. Pradhan has pointed out some major issues in local CBs in comparison of recently established joint venture banks through his article “ Nepalma Baniya Bank: Upalabdhi Tatha Chunauti”(1999).The study deals with the whole CBs system of Nepal in respect of their performance and profitability. He concluded from the study that the deposit collection rate of local banks is very poor in comparison to joint venture banks. The patterns of deposit are also different between these banks. The rate of current deposit in local banks is 9.34% only where as in the same joint venture banks is 52.6% but the fixed deposit is very high in the local banks.

Bhaskar Sharma in his article “Banking the Future of Competition” (2000) has said due to the lack of investment avenues, banks are tempted to invest without proper credit appraisal and on personal guarantee,

whose negative side effects would show colors only after four or five years. Again, he said that private Commercial Banks have mushroomed only in urban areas where banking transactions in large volume is possible. The rural and suburban areas mostly remain unattended to. This is likely to prevail till competition takes its full rein in the urban areas.

## **2.2 Review of Theses**

Manisha Bhusal has conducted her study entitled as “Financial Performance Analysis of Commercial Banks in Nepal in the Framework of CAMEL” (2007). The main objective of the study was to analyze and compare the financial performance of MBK and KBL in the frame work of CAMEL with reference to capital adequacy, assets quality, trend of earning, liquidity position and income-expense ratio.

The researcher has concluded that the core capital adequacy ratios of both MBL & KBL are in decreasing trend. SO she recommended to maintain stable and adequate capital adequacy ratio in the future. The researcher has concluded that the total expense to total income ratios of both banks are in fluctuating trend over the review period. So she recommended to reduce the operating expenses. Decreasing in total expenses to total incomes ratio will positively affect the company’s profitability.

The study further concluded that the liquid assets to total deposit ratio, NRB balance to total deposit ratio and cash at vault to total deposit ratio of MBL and KBL are very low and most of them have not met the benchmark set by NRB which need to be monitored and complied in accordance with the NRB requirements.

Mr. Raja Ram Khadka has conducted his study entitled as “A Study on Investment Policy of NABILin Comparison to Other Joint Venture Banks” 1997. The main objective of the study was to evaluate the liquidity, assets management, efficiency, profitability and risk position of NABIL in comparison to other joint venture banks; and to study the fund mobilization and

investment policy with respect to fee based off balance sheet transaction and fund based on balance sheet transaction.

The researcher has found that liquidity position of NABIL is worse than that of other joint venture banks. NABIL has more portion of current assets as loan and advances but less portion as investment on government securities. NABIL is comparatively less successful in on-balance sheet operations as well as off-balance sheet operations than that of other joint venture banks. Profitability position of NABIL is comparatively not better than that of other joint venture banks. NABIL is more successful in deposit mobilization but failure to maintain high growth rate of profit in comparison to NGBL & NIBL.

The study has suggested the joint venture banks to be careful in increasing profit in real sense to maintain the confidence of shareholders, depositors and customers. He has strongly recommended NABIL to utilize its risks assets and shareholders' fund to gain highest profit margin and reduce its fund in different sectors of investment and administering various deposit schemes to collect fund such as cumulative deposit scheme, price bond scheme, gift scheme, house building deposit scheme etc. He has recommended liberal lending policy and investment more percentage of total deposit as loan and advances.

The study has conducted his study entitled as "A Study on Investment Policy of NABIL in Comparison to Other Joint Venture Banks." The main objective of the study was to evaluate the liquidity, asset management, profitability and risk position of NABIL in comparison to other joint venture banks and to study the fund mobilization and investment policy.

The researcher has found that the liquidity position of NABIL is worse than that of other joint venture banks ( NGBL& NIBL). NABIL has more portion of current assets as loan and advance but less portion as investment on government securities. NABIL is comparatively less successful in on-balance sheet operation as well as off-balance sheet operation than that of other JVBs. Profitability position of NABIL is comparatively not better than NGBL and

NIBL. NABIL is more successful in deposit mobilization but failure to maintain high growth rate of profit in comparison to NGBL and NIBL.

He has suggested the JVBs to be careful increasing profit to maintain the confidence of shareholders depositors and customers . He has strongly recommended NABIL to utilize its risk assets and deposit to earn high profit and to reduce its fund in different sectors of investment . He has recommended to follow liberal lending policy and investment more percentage of total deposit as loan and advances.

## **CHAPTER-III**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

“Research methodology is the process of a systematic and in-depth study or search of any particular topic, subject or area of investigation backed by the collection , compilation, presentation and interpretation of relevant details or data. It is a careful search or inquiry in to any subject matter, which is an endeavor to discover or find out valuable facts which will be useful for future application or utilization.” ( Joshi, 2001: p3 ).

Therefore, this chapter is adopted in achieving the objectives stated in the earlier chapter.

This study follows the steps of scientific research process as this study follows a step-by-step logical and organized method to identify problems, gather data, analyze and draw valid conclusions about the data.

##### **3.1.1 Research Design**

A research design is the specification of methods and procedures for acquiring the information needed. It is the overall operational pattern of framework, of the project that stipulates what information is to be collected from which sources by what procedure. If it is a good design, it will ensure that the information obtained is relevant to the research questions and that it was collected by objective and economical procedures.

Thus, research design is a plan for the collection and analysis of data.

To achieve the objective of this study, descriptive and analytical research design has been used. This study is the comparative research study of leading commercial banks of Nepal. Everest Bank Ltd., Kumari Bank Ltd., Machhapuchchhre Bank Ltd., are selected for this study. This study is based

upon secondary data. Both financial and statistical tools have been applied to examine facts and descriptive techniques have been adopted to evaluate the investment performance of the above mentioned three commercial banks.

### 3.1.2 Population and Sample

Twenty five commercial banks functioning in Nepal is the size of population. Out of 26 commercial banks, 3 leading commercial banks as Everest Bank Ltd, Kumari Bank Ltd and Machhaphchchhre Bank Ltd are selected as sample to carry out this research study on the basis of investment performance. They are the most competitive commercial banks each having more than 5 years history. The functioning commercial banks with the operation date, head office and paid up capital are given below:

**List of Commercial Banks**

S. No.	Names	Operation Date (A.D.)	Head Office	Paid up Capital (Rs. In Million)
1	Nepal Bank Limited	1937/11/15	Kathmandu	380.4
2	Rastriya Banijya Bank	1966/01/23	Kathmandu	1172.30
3	Agriculture Development Bank Ltd.	1968/01/02	Kathmandu	10777.50
4	NABIL Bank Limited	1984/07/16	Kathmandu	965.75
5	Nepal Investment Bank Limited	1986/02/27	Kathmandu	1606.07
6	Standard Chartered Bank Nepal Limited.	1987/01/30	Kathmandu	932.00
7	Himalayan Bank Limited	1993/01/18	Kathmandu	1216.20
8	Nepal SBI Bank Limited	1993/07/07	Kathmandu	874.50
9	Nepal Bangladesh Bank Limited	5/6/1994	Kathmandu	744.10
10	Everest Bank Limited	1994/10/18	Kathmandu	691.40
11	Bank of Kathmandu Limited	1995/03/12	Kathmandu	603.10
12	Nepal Credit and Commerce Bank	1996/10/14	Siddharthanagar,	1399.50

	Limited		Rupendehi	
13	Lumbini Bank Limited	1998/07/17	Narayangadh, Chitawan	996.31
14	NIC Bank Limited	1998/07/21	Biaratnagar, Morang	1140.50
15	Machhapuchhre Bank Limited	2000/10/03	Pokhara, Kaski	1314.64
16	Kumari Bank Limited	2001/04/03	Kathmandu	1078.27
17	Laxmi Bank Limited	2002/04/03	Birgunj, Parsa	1098.10
18	Siddhartha Bank Limited	2002/12/24	Kathmandu	952.20
19	Global Bank Ltd.	2007/01/02	Birgunj, Parsa	1000.00
20	Citizens Bank International Ltd.	2007/6/21	Kathmandu	700.00
21	Prime Commercial Bank Ltd	2007/9/24	Kathmandu	700.00
22	Sunrise Bank Ltd.	2007/10/12	Kathmandu	700.00
23	Bank of Asia Nepal Ltd.	2007/10/12	Kathmandu	700.00
24	Development Credit Bank Ltd.	2001/01/23	Kamaladi, Kathmandu	1107.5
25	NMB Bank Ltd.	1996/11/26	Babarmahal, Kathmandu	1000.00
26	Kist Bank Ltd.		Anamnagar, Kathmandu	2000.00

### 3.1.3 Data Collection Procedure

The data collection procedure is mainly based on the secondary data that are derived from balance sheets, P/L accounts and annual bank reports of the concerned banks. Other supplementary data are derived from NRB, Nepal Stock Exchange, different journals and related websites through internet.

### **3.1.4 Tools for Analysis**

To achieve the objectives of the research study, the data must be analyzed. For this purpose financial tools and statistical tools are used.

#### **Financial Tools**

By means of financial analysis we can identify the financial strength and the weakness of the firm by properly establishing relationship between the items of the balance sheet. In this study ratio analysis are used as the financial tools for the data analysis.

#### **Ratio Analysis**

Ratio analysis is a technique of analyzing and interpreting financial statements to evaluate the performance of an organization by creating the ratios from the figures of different accounts consisting in balance sheet and income statements. The qualitative judgement concerning financial performance of a firm can be carried out with the help of ratio analysis. Even though there are many ratios, only those ratios are analyzed in this study, which are related to investment performance of the bank.

This study contains following ratios:

#### **1. Liquidity Ratio**

A liquid asset is one that can be easily converted to cash without significant loss of its original value. Liquidity refers to the bank's ability to meet deposit withdrawals, maturing liabilities and loan requests without delay. Its validity shows the short-term financial strength of the business. It is also a process of measuring speed with which a bank asset can be converted into cash to meet deposit withdrawal, loan demand and other current obligation. Deposit, borrowing and cash generated from operation forms a major sources of liquid funds for commercial banks.

The following ratios are evaluated under liquidity ratio

**a) Current Ratio**

This is the ratio of current assets and current liabilities. Current assets are those assets, which can be converted into cash within short span of time, usually not exceeding one year. Current liabilities are those obligations which are payable within a short period. The ratio is calculated as;

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current liabilities}}$$

Current assets of a bank usually include cash balance, balance with banks, money at call and short notice, investments, loan and advances, bills purchased, interests receivable and other miscellaneous current assets. Similarly current liabilities include borrowings, deposit accounts, bills payable, short term loans, tax provision, divided payables and other miscellaneous current liabilities. This ratio shows the capability of the bank to meet its short term obligations.

**b) Cash and Bank Balance to Deposit Ratio**

As it is obvious, cash and bank balance are the most important liquid current assets. This ratio measures the percentage of most liquid fund with the bank's total deposit. This shows the capacity of the bank to make instant payment to the depositors. The ratio is calculated as:

$$\text{Cash and Bank Balance of Total Deposit Ratio} = \frac{\text{Cash and Bank balance}}{\text{Total Deposit}}$$

**c) Cash and Bank balance to Current Assent Ratio**

This ratio measures the proportion of most liquid assets, i.e cash and bank balance, among the total current assents of the bank. Higher ratio shows the bank's ability to meets the demands for cash. The ratio is calculated as:

$$\text{Cash and Bank Balance to Current Asset Ratio} = \frac{\text{Cash and Bank balance}}{\text{Current Assets}}$$

**d) Investment on Government Securities to Current Assent Ratio**

This ratio is calculated to find out the percentage of current asset invested in the government securities such as treasure bills and government bonds like development bonds and national saving bonds. The ratio is calculated as:

$$\text{IGSCA Ratio} = \frac{\text{Investment in government securities}}{\text{Current Assets}}$$

**e) Loan and Advance to Current Asset Ratio**

Loan and advance of a bank basically includes different type of loans lent by the bank to the customers in different sectors like agriculture, manufacturing, service industries, wholesalers and retailored etc the ratio is calculated as:

$$\text{Loan and advance to current Asset Ratio} = \frac{\text{Loan and advance}}{\text{Current Assets}}$$

**2. Assets Management Ratio**

Asset management ratio measures how meticulously a firm is managing its assets. These ratio are designed to answer this question: Does the total amount of each type f assets as regarded on the balance sheet seem reasonable, how high too low, in view of current assets and operating levels ? Investment and loan advance and major portion of this asset is funded by deposit accounts. Interest earned from investment and loan and advance covers the major portion of the bank’s total earnings and this is used to pay the interest to the deposited by using assets management ratio.

The following ratios are used under this asset management ratio.

**a) Loans and Advances to Total Deposit Ratio**

Loans and advances is the major component of the total working fund (total assets) which indicates the activity of bank to channelize it’s deposited in the form of loans and advances to earn high return. The ratio can be calculated as:

$$\text{Loan and advance to Total Deposit Ratio} = \frac{\text{Loan and advance}}{\text{Total Assets}}$$

**b) Total Investment to total Deposit Ratio**

Investment is one of the major credits to earn income. This implies the utilization of the bank's deposit on investment in government securities and shares and debentures of other companies and banks. The ratio is calculated by dividing total investment by total deposit. The lower the ratio is more utilization of funds and vice versa. This can be measured as:

$$\text{Total investment to Total Deposit Ratio} = \frac{\text{Loan and advance}}{\text{Current Assets}}$$

**c) Loans and Advances to Total Working Fund Ratio**

Loans and advances is the major component of the total working fund (total assets), which indicates the activity of a bank to channelize its deposits in the form of loans and advances to earn high return. Higher the ratio, higher the utilization, higher the profit and at the same time, higher the risk. The ratio can be calculated as:

$$\text{Loan and advance to Total Working Fund Ratio} = \frac{\text{Loan and advance}}{\text{Total working fund}}$$

**d) Investment on Government Securities to Total Working Fund Ratio**

This ratio shows the relationship between the banks investment on government securities in comparison to the total working funds. This ratio is computed as:

$$\text{IGSTWF Ratio}^* = \frac{\text{Investment on government securities}}{\text{Total working fund}}$$

\*Investment on Government Securities to Total Working Fund Ratio

**e) Investment on Shares and Debentures to Total Working Fund Ratio**

This ratio shows the bank's investment in shares and debentures of subsidiary and other companies. This ratios can be computed as:

$$\text{ISDTWF Ratio}^* = \frac{\text{Investment on shares and debentures}}{\text{Total working fund}}$$

) Investment on shares and debentures to total working fund ratio.

### 3. Profitability Ratio

Profitability Ratios are calculated to measure the effectiveness and smooth operation of an organization in terms of profit. It is the device to indicate the financial performances of any institution. This proves that higher the profitability ratio, better the financial performance of a bank or vice versa. Profitability ratio can be evaluated through following different ratio:

#### a) Return on Loans and Advances Ratio

This ratio shows how effectively the bank has utilized its resources in the form of loans and advances. The ratio can be calculated as:

$$\text{Return on loans and advances} = \frac{\text{Net Profit (Loss)}}{\text{Loan and advances}}$$

#### b) Return on Total Working Fund Ratio

It is also known as return on asset. The ratio measures the overall profitability of all working funds, i.e. total assets. A firm or a financial institution has to earn satisfactory return on assets of working fund for its survival. The ratio can be computed as:

$$\text{Return on Total working fund Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Total working fund}}$$

#### c) Return on Equity Ratio

This ratio measures how efficiently the bank has used the funds of its owner's i.e. shareholders. This ratio can be computed as:

$$\text{Return on Equity Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Total equity capital}}$$

#### d) Total Interest Earned to Total outside Asset Ratio

This ratio measures the interest earning potentiality of the bank through the efficient utilization of outside assets. Higher ratio implies efficient use of outside assets to earn interest. The ratio can be computed as:

$$\text{Total Interest Earned to Total outside Asset Ratio} = \frac{\text{Total interest earned}}{\text{Total outside asset}}$$

Total interest earned interest earning from different sector investments and loan whether it is long term or short term by the bank in an accounting year. For instance, interest from loans, advances, cash credit and overdraft and other investment; where as, total outside assets includes loans and advances, bills purchased and discounted and all types of investment.

#### **b. Total Interest Earned to Total working Fund Ratio**

The ratio is calculated to find out the percentage of interest to total assets (working Fund). This ratio is calculated as:

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total interest earned}}{\text{Total working Fund}}$$

Total interest earned includes interest earning earning from different sector investments and loan whether it is long term or short term. This is the main earning of the bank. Even though the ratio does not have any standard rate, the higher ratio the better result.

#### **c. Total Interest earned to Total Operating Income Ratio**

This ratio is calculated to find out the proportion of interest income in total operating income of bank. It indicates how efficient is the bank in mobilization of its funds in interest bearing assets. The ratio is computed as:

$$\text{Interest Earned to Total Operating Income Ratio} = \frac{\text{Total interest earned}}{\text{Total Operating Income}}$$

### **4. Risk Ratio**

The possibility of risk makes a bank's investment a challenging risk. Bank has to take risk to get result on its investment. The risk taken is compensated by the increase in profit. So a bank has to have an idea of the level of risk that one has to bear while investing funds.

The following ratios are evaluated under this study.

### **a. Credit Risk Ratio**

A bank always faces the risk that some of its borrowers may renege on timely repayments of loan, interest on loan or meet the other terms of contract or that investment will deteriorate in quality or go into default with consequent loss to the bank. This risk is called credit risk, which varies from borrower to borrower depending on their credit quality. Credit risk ratios are also used to assess the level of risk in the bank credit policies. By definition, credit risk ratio is expressed as the percentage of non performing loan to total loan and advances. Credit risk is computed as:

$$\text{Credit Risk Ratio} = \frac{\text{Total loans and advances}}{\text{Total Assets}}$$

### **b. Liquidity Risk Ratio**

The liquidity Risk Ratio of bank defines its liquidity need for deposits. The cash and bank balance are the most liquid assets and they are considered as bank's liquidity sources and deposits as the liquidity needs. The ratio of cash and bank balance to total deposits is an indicator of bank liquidity needs.

This risk is low if funds are kept idle or as cash and bank balances but this affects profitability. When bank makes loan, its profitability increases and also the risk. Thus, higher liquidity ratio indicates less risk and less profitability or vice versa. The ratio can be computed as:

$$\text{Liquidity Risk Ratio} = \frac{\text{Cash bank balance}}{\text{Total Deposit}}$$

### **c. Capital Risk Ratio**

Capital risk ratio measures bank's ability to attract deposits and inter bank funds. It also determines the level of profit a bank can earn. The capital risk is directly related to return on equity. Higher the ratio higher the capital risks. The ratio is computed by dividing capital (paid up capita and reserve) by risk-weighted assets as under BASLE committees' formula, which can be mentioned as:

$$\text{Capital Risk Ratio} = \frac{\text{Capital (paid up } \Gamma \text{ Reserve)}}{\text{Risk weighted assets}}$$

### 5. Growth Ratio

Growth ratio represents how well the CBs are maintaining their economic and financial status. Higher the ratio, better the executing of the bank and vice versa. Under this title, four types of ratio are studied. They are directly related to the fund mobilization and investment of CB. There ratios are:

- a. Growth Ratio of Total Deposit
- b. Growth Ratio of Loans and Advances
- c. Growth Ratio of total Investment
- d. Growth Ratio of Net profit

The calculation is done by using the formula:

$$D_n = D_o (1+g)^{n-1}$$

Where,

$D_n$  = Data in the  $n^{\text{th}}$  year

$D_o$  = Data in the initial year

$g$  = Growth rate

$n$  = Number of years of study

Then, 'g' is calculated by referring to the interest table.

### 3.4.2 Statistical Tools

Some important statistical tools are used to achieve the objective of this study. The statistical tools that are used for data analysis in this study are:

- a. Trend Analysis

Trend analysis is an analysis of a firm's financial ratios over time. This measures the change of data over a period of time. This reveals whether the firm ratios are improving or deteriorating over time. Under segment, current and projected trend values of loan and advance to total deposit ratio and investment to total deposit ratio are calculated.

b. Karl Pearson's Coefficient of Correlation

Correlation is the measure of relationship between two or more characteristics of a population or sample. For the purpose of comparison and further analysis" Karl Pearson's coefficient of correlation" is applied in this study. This measures the degree of association between the two variables say X and Y for a given set of N observations. Here, in this study, the calculation is done by using "actual mean or product mean method." The formula for calculation is:

$$r = \frac{\sum xy}{\sqrt{\sum x^2} \sqrt{\sum y^2}}$$

Where,

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

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

The value of correlation coefficient 'r' always varies from -1 to +1.

If  $r = 0$ , there is no relationship between the variables.

If  $r < 0$ , there is negative relationship between the variables.

If  $r > 0$ , there is positive relationship between the variables.

If  $r = +1$ , the relationship is perfectly positive.

If  $r = -1$ , the relationship is perfectly negative.

The degrees of reliability of computed correlation can be judged with the help of its probable error where,

$$\text{Probable Error (P.E.)} = \frac{(1.96r)}{\sqrt{N}} \approx 0.6745$$

If  $r < P.E.$ , then the value of 'r' or correlation coefficient is insignificant; i.e. there is no evidence of correlation between the variables.

If  $r > 6P.E.$ , then the value of 'r' or correlation coefficient is significant.

c. Standard Deviation and Coefficient of Variation.

The measurement of the scatter ness of the mass of figures in a series about an average is known as dispersion. Standard deviation measures dispersion and gives uniform, correct and stable results. The greater the amount of dispersion greater the standard deviation. A small standard deviation mean a high degree of uniformity of the observation as well as homogeneity of a series. A large standard deviation means the opposite. In this study, standard deviations of different ratio are calculated.

The coefficient of variation is the relative measure of dispersion, comparable across distribution which is defined as the ratio of the standard deviation to the means expressed in percentage.

## CHAPTER -IV

### DATA PRESENTATION AND ANALYSIS

In this chapter, all the collected data are processed, presented and analyzed; the outcome of the study solely depends upon this chapter. So, this chapter is the most important part of the study. Financial and statistical tools mentioned in the previous chapter are used here for interpretation. For the sole purpose, interpretations are categorized into headings:

- A. Analysis of Financial Ratio
- B. Analysis of Statistical Tools

#### 4.1 Analysis of Financial Ratio

Here appropriate ratios are calculated and proper interpretations are made. The analysis of the financial ratios verifies the performances of the concerned banks.

##### 4.1.1 Liquidity Ratio

Liquidity ratio shows a bank's obligation in the short term or short run solvency. It also measures the speed with which a bank asset can be converted into cash to meet deposit withdrawal, loan demand and other current obligations. the following ratios are calculated under liquidity ratio :

##### 1. Current Ratio

Current ratio shows the relationship between current assets and current liabilities. Current asset are those assets which can be converted into cash within the short period of time, normally not exceeding one year. Current liabilities are those obligations which were payable within a short span of time.

$$\text{Current Ratio} = \frac{\text{Current asset}}{\text{Current liabilities}}$$

**Table 4.1**  
**Current Ratio**

Banks	Fiscal Years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	0.94	1.04	1.07	1.06	1.05	1.03	0.04	4.55
MBL	1.11	1.08	1.10	1.07	1.06	1.08	0.09	8.33
KBL	1.03	1.07	1.09	1.07	1.10	1.07	0.07	6.54

(As per Annexure A1)

As per the captioned table, the current ratios of commercial banks are calculated as per the Annexure A1 and mean, standard deviation and coefficient of variation are calculated as per Schedule 1.

In the case of KBL , we can notice the increasing trend of current ratio but the sudden drop in the year 2063/64 which shows the fluctuating trend. During the five years period the ratio of all banks are in fluctuating trend. In average MBL has maintained the highest mean current ratio of 1.08. EBL has the lowest mean ratio of 1.03. EBL has the lowest ratio in the year 2060/61 while MBL has the highest ratio in the year 2060/61. The coefficient of variation of EBL is lowest at 4.55 % and MBL has the highest CV at 8.33 %. Hence, it can be said that MBL can meet its short-term obligations more efficiently than other banks.

## 2. Cash and Bank Balance to Total Deposit Ratio

This ratio measures the proportion of the most liquid assets i.e cash and bank balance among the total deposit of the bank. Higher ratio proves the bank's ability to meet the demand for cash.

$$\text{Cash and Bank Balance to Total Deposit Ratio} = \frac{\text{Cash and bank balance}}{\text{Total Deposit}}$$

**Table 4.2**  
**Cash and Bank Balance To The Deposit Ratio**

Banks	Fiscal Years					Mean	Standard Déviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	7.83	10.39	11.25	13.15	11.13	10.75	1.72	16.00
MBL	2.37	10.46	9.75	12.36	14.32	9.85	4.07	41.32
KBL	1.42	5.28	4.46	5.45	7.31	4.78	1.93	40.37

(As per Annexure A2)

The above contents of mean, standard deviation and coefficient of variation are calculated as per Schedule 1 and the ratios are calculated as per Annexure A2.

During the five year period, ratios of all banks are in fluctuating trend. EBL has maintained the highest average ratio at 10.75% than MBL and KBL. KBL has the lowest mean ratio at 4.78%. EBL has the lowest ratio during 2060/61 while KBL has the highest ratio during 2064/65. The CV of MBL and KBL is somewhat in same level. MBL has highest CV at 41.32 % which shows the fluctuation in the ratio while EBL has the lowest CV at 16 %.

KBL's liquidity is weakest in regards of cash and bank balance and total deposit, and EBL is better in this regard.

### 3. Cash and Bank Balance to Current Asset Ratio

This ratio measures the proportion of most liquid assets i.e cash and bank balance among the total current asset of bank. Higher ratio shows the bank's ability to meet the demand for cash.

$$\text{Cash and Bank Balance to Current Asset Ratio} = \frac{\text{Cash and bank balance}}{\text{Current asset}}$$

**Table 4.3****Cash and Bank Balance to Current Asset Ratio**

Banks	Fiscal Years					Mean	Standard Déviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	7.52	6.83	9.84	11.25	9.88	9.06	1.66	18.32
MBL	2.02	9.27	8.56	11.03	13.03	8.78	3.72	42.36
KBL	1.32	4.51	3.86	4.87	6.31	4.17	1.65	39.56

(As per Annexure A3)

The above contents of mean, standard deviation and coefficient of variation are calculated as per Schedule 1 and Cash and Bank Balance to Current Asset ratios are calculated as per Annexure A3.

It shows that cash and bank Balance to current asset ratios of all the banks are in fluctuating trend during the five-year period. EBL has maintained the highest ratio through out the five-year period. Its mean ratio is highest at 9.06 %. KBL has the lowest mean ratio at 4.17 %. KBL has the highest ratio in the year 2064/65 . CV of MBL is highest at 42.36% where as CV of EBL is lowest at 18.32% showing better consistency.

Hence, it can be said that EBL has the most ability to manage the withdrawal form the customers though it has the fluctuating trend but the better position does not mean that the bank has mobilized its fund in the profitable sector.

#### **4. Investment on Government Securities to Current Asset Ratio**

This ratio is calculated to find out the percentage current asset invested in government securities such as treasury bills and government bones. This ratio

is computed as: IGSCA Ratio = 
$$\frac{\text{Investment on government securities}}{\text{Current asset}}$$

**Table 4.4**

**Investment on Government securities to Current Asset Ratio**

Banks	Fiscal years					Mean	Standard Déviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	29.36	13.66	22.48	22.15	18.75	21.28	5.14	24.15
MBL	2.20	2.02	10.06	8.95	6.78	6.002	3.35	55.81
KBL	11.65	15.27	12.41	10.98	9.93	12.05	1.79	14.87

(As per Annexure A4)

The above contents of mean, standard deviation and coefficient of variation are calculated as per Schedule 1 and ratios are calculated as per Annexure A4. The table reveals that almost all the banks have the fluctuating trend . In average, EBL has the higher ratio of 21.28%. MBL has the remarkably lowest average of 6.002%, KBL has the lowest CV of 14.87% and MBL has the highest CV of 55.81%.

MBL has the lowest investment in government securities where as EBL has the highest. Due to this fluctuation MBL's CV is highest.

**5. Loan and Advance to current Asset Ratio**

Loan and Advances include short and loans lent by the bank to its customers, overdraft, revolving overdrafts, stand by credit, line of credit and other lending.

$$\text{Loan and Advance to Current Asset Ratio} = \frac{\text{Loan and advance}}{\text{Current Asset}}$$

**Table 4.5**  
**Loan and Advance to current Asset Ratio**

Banks	Fiscal yars					Mean	Standard Déviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	69.45	49.54	62.11	64.32	67.95	62.67	7.09	11.31
MBL	77.11	80.27	67.53	67.11	71.36	72.67	5.31	7.31
KBL	70.65	76.16	76.78	75.54	76.68	75.16	2.36	3.14

(As per Annexure A5)

The contents of above table mean, standard deviation and coefficient of variation are calculated as per Schedule 1 and loan and advance to current asset ratios are calculated as per Annexure A5.

The above table shows that loan and advance to current asset ratios of all the banks are in fluctuating trend. But EBL shows the increasing ratio during 2063-2065. KBL has the highest mean ratio of 75.16% and EBL has the lowest mean of 62.67%. The mean ratio of MBL and KBL are at somewhat same level. The CV of EBL is highest at 11.31% and that of KBL is lowest at 3.14%.

The comparison shows that the performance of KBL is better than the other two banks. It means KBL's management of loan and advance is better than EBL and KBL.

#### **4.1.2 Assets Management Ratio**

Assets management ratio shows how a bank is managing its assets. It shows how successfully the bank is mobilizing its deposits in different assets. It also shows how and in which sectors the deposit is utilized or invested. These are show with the help of following ratios:

## 1. Loan and Advance to Total Deposit Ratio

This ratio assists to find out how successfully the banks are utilizing their total deposits on loans and advances for profit generating purpose. Greater the ratio implies the better utilization of total deposits. The ratio is computed as:

$$\text{Loan and Advance to Deposit Ratio} = \frac{\text{Loan and advance}}{\text{Total Deposit}}$$

**Table 4.6**  
**Loan and Advance to Total Deposit Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	72.35	75.45	71.01	75.13	76.48	74.08	2.19	2.95
MBL	90.50	90.59	76.88	75.24	78.41	82.32	6.83	8.30
KBL	75.89	89.08	88.71	84.57	88.73	85.39	5.13	6.01

(As per Annexure A6)

Looking at the above table, loan and advance to total deposit ratios of all banks are in fluctuating trend. In average, KBL has the highest ratio of 85.39 and EBL has the lowest average of 74.08. EBL has the lowest ratio during 2062/63 and MBL has the highest ratio during year 2061/62. the CV of MBL is highest of 8.30% while CV of EBL is lowest of 2.95% which does indicate MBL is instability and inconsistency in terms of loan and advance.

This indicates that KBL has invested major portion of its total deposit into loan and advance while EBL's investment has been consistent than other two banks.

## 2 Total investment to Total Deposit Ratio

Investment is one of the major credits created to earn profit. This implies utilization of a bank's deposit on investment in government securities, shares

and debenture of other companies and banks. The higher the ratio means more utilization of funds and vice versa.

$$\text{Total Investment to Total Deposit Ratio} = \frac{\text{Total Investment}}{\text{Total Deposit}}$$

**Table 4.7**

**Total Investment to Total Deposit Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	31.44	21.08	30.43	27.41	21.10	26.29	4.46	16.96
MBL	8.33	3.47	11.50	10.04	7.50	8.16	2.72	33.29
KBL	18.75	22.21	20.37	12.29	12.87	17.29	4.04	23.38

(As per Annexure A7)

The table shows that the total investment to total deposit ratios are in fluctuating trend during the five-year period. EBL has the highest ratio during 2060/61 and MBL has lowest ratio during 2061/62. In average EBL has maintained highest mean ratio of 26.29 and MBL has the lowest mean ratio of 8.16. CV of EBL is remarkably at 16.96% while MBL has the highest CV at 33.29%.

This indicates that EBL's performance is better than other two banks in managing total deposit. This shows that EBL has utilized its total deposit more efficiently than other two banks.

### **3 Loan and Advance to Total Working Fund Ratio**

Loan and advance is the major element in the total working fund (total assets) which indicates the ability of a bank to channelize its deposit in the form of loan and advance to earn the utmost return.

$$\text{Loan and Advances to Total Working Fund} = \frac{\text{Loan and advance}}{\text{Total Working Fund}}$$

**Table 4. 8**  
**Loan and Advances to Total Working Fund**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	60.85	49.03	61.41	63.75	66.21	60.25	5.92	9.82
MBL	72.18	78.37	66.73	65.50	68.33	70.22	4.68	6.68
KBL	66.08	74.59	76.00	74.34	74.59	73.12	3.56	4.88

(As per Annexure A8)

The table shows that loan and advance to total working fund ratios are in fluctuating trend during the five years period . MBL has the highest ratio and EBL has the lowest ratio in the year 2061/62. In average, KBL has maintained highest mean ratio of 73.12 and EBL has the lowest mean ratio of 60.25. CV of KBL is remarkably lowest at 4.88% while EBL has the highest CV at 9.82%. The above comparison shows that EBL has the lowest ratio, its ratios are more consistent.

#### **4. Investment on Government Securities to Total Working Fund Ratio**

This ratio indicates the relationship between the bank's investments on securities in comparison to total working fund and is calculated as:

$$\text{IGSTWF Ratio} = \frac{\text{Investment on government securities}}{\text{Total working fund}}$$

**Table 4.9****Investment on Government Securities to Total Working Fund Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	25.72	13.51	22.23	21.95	18.26	20.33	4.17	20.51
MBL	2.06	1.97	9.95	8.74	6.49	5.84	3.32	56.81
KBL	10.89	14.96	12.29	10.81	9.66	11.72	1.83	15.64

(As per Annexure A9)

The above table shows the inconsistency of all three banks in terms of investment on securities in comparison to total working fund i.e. the ratios are fluctuant. MBL has the lowest ratio of 5.84 considering the average value and EBL has the highest value of 20.33. The CV of MBL is remarkably highest at 56.81% while KBL has the lowest value at 15.64%.

This indicates that MBL's performance is poor regarding investment on government securities. MBL has invested remarkably negligible amount in government securities which are considered as least risky securities during first three years.

**6. Investment on Shares and Debentures to Total Working Fund Ratio**

This ratio reflects the banks' investment in shares and debentures of subsidiary and other companies.

$$\text{ISDTWF} = \frac{\text{Investment on shares and debentures}}{\text{Total working fund}}$$

**Table 4.10**

**Investment on Shares and Debentures to Total Working Fund Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	0.18	0.12	0.12	0.08	0.36	0.17	0.1	58.82
MBL	0.26	0.14	0.004	0.003	0.04	0.08	0.01	12.50
KBL	0.00	0.004	0.003	0.002	0.12	0.026	0.01	38.46

(As per Annexure A10)

In the above table , the proportion is variable and fluctuating during the five-year period for all the three banks .EBL’s ratio has been consistent during 2061/62 to 2062/63. KBL has the lowest ratio of 0.026% considering the average value and EBL has the highest value of 0.17. The CV of MBL has lowest value at 12.5% and EBL has the highest value at 58.82%.

Hence, EBL is more consistent and stable in terms of investment on shares and debentures than other two banks.

**4.1.3 Profitability Ratio**

These ratios measures the efficiency of the banks activities and its ability to generate profits. This is directly related to the income generated by the banks.

**1. Return on Loan and Advance Ratio**

This ratio specifies how efficiently the bank has used its resources in the form of loan and advance. It’s calculated as :

$$\text{Return on Loan and Advance Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Loans \& Advances}}$$

**Table 4.11**

**.Return on Loan and Advance Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	2.46	2.20	2.42	2.17	2.45	2.34	0.14	6.04
MBL	1.87	1.68	2.21	1.06	1.47	1.66	0.37	22.54
KBL	1.33	1.51	1.50	1.91	1.59	1.57	0.17	11.03

(As per Annexure A11)

In the above table, the proportion is variable and fluctuating during the five-year period for all the three banks. In average EBL has significantly highest mean ratio of 2.34 and KBL has the lowest average of 1.57 but averages of KBL and MBL are not so different. Regarding CV, EBL has remarkably lowest CV at 6.04% while MBL has the highest CV at 22.54%.

This indicates that even though KBL has the lowest average return, its return are more consistent. On the other hand, even though EBL has the highest return, it is in risky position.

**2. Return on Total Working Fund Ratio**

This is also known as return on assets and this ratio assists in calculating the overall profitability of total working funds which should be satisfactory for its survival.

$$\text{Return on Total Working Fund Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Total Working Fund}}$$

**Table 4.12**

**Return on Total Working Fund Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	1.49	1.08	1.48	1.38	1.62	1.41	0.84	60.24
MBL	1.35	1.31	1.47	0.69	1.01	1.17	0.26	22.61
KBL	0.88	1.12	1.14	1.41	1.18	1.15	0.14	12.17

(As per Annexure A12)

The above table shows that all the three banks are inconsistent in earning the net profit . EBL’s ratio has been significantly highest during year 2064/65 and MBL has the lowest ratio in 2063/64. Considering the mean ratios , EBL has the highest mean of 1.41 while the KBL has the lowest mean of 1.15. Means of KBL and MBL are at somewhat same level. Although EBL has the highest average ratio, its CV is comparatively highest at 60.24% and KBL has the lowest CV at 12.17%.

From the prospect of analysis, the conclusion would be EBL is earning highest profit in comparison to its net worth but it is in the position of highest risk too.

**3. Return on Equity Ratio**

This ratio measures how efficiently the banks have used the funds of owners. It is calculated as :

$$\text{Return on Equity Ratio} = \frac{\text{Net Profit (Loss)}}{\text{Total equity capital}}$$

**Table 4.13**  
**Return on Equity Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	26.57	21.85	24.64	24.66	22.22	23.99	1.72	7.15
MBL	8.42	13.31	14.39	7.59	10.38	10.82	2.65	24.48
KBL	8.54	13.12	12.00	16.60	13.11	12.67	2.59	20.46

(As per Annexure A13)

The above table shows the fluctuating tendency in the five years period of study. EBL has the highest ratio and MBL has the lowest ratio in the year 2060/61. EBL has the highest mean ratio of 23.99 and MBL has the lowest mean ratio of 10.82. The coefficient of variation of EBL is lowest at 7.15% while CV of MBL is highest at 24.48%.

This concludes that EBL's profitability considering shareholder's equity is better than that of other two banks while MBL's performance is poor regarding earning profit due to high fluctuation and decreasing trend.

#### **4 Total Interest Earned to Total Outside Asset Ratio.**

This ratio calculates the interest earning capacity of the banks utilizing its outside assets. Here, the total outside asset means the sum of loan and advances and investments. It is calculated as:

$$\text{Total Interest Earned to Total Outside Asset Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Outside Asset}}$$

**Table 4.14**  
**Table Total Interest Earned to Total outside Asset Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	7.92	7.40	6.76	6.23	6.61	6.98	0.65	9.28
MBL	8.39	7.36	8.08	8.59	8.40	8.16	0.51	6.25
KBL	7.29	7.45	7.56	7.73	7.52	7.51	0.14	1.88

(As per Annexure A14)

The above table shows the decreasing trend of interest earning ratio for EBL, MBL and KBL has the fluctuating trend. All three banks have somewhat equal average return. MBL has the highest mean ratio of 8.16 while EBL has the lowest ratio of 6.98. Regarding coefficient of variation KBL has the lowest value at 1.88% and EBL has the highest value at 9.28%.

Hence, EBL is in the riskier position than the two other banks.

### **5 Total Interest Earned to Total Working Fund Ratio**

This ratio is computed to proportion of total interest earned to total working fund or total asset and is computed as

$$\text{Total Interest Earned to Total Working Fund Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Working Fund}}$$

**Table 4.15**  
**Total Interest Earned to Total Working Fund Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	6.85	4.63	5.66	5.34	5.58	5.61	0.73	13.09
MBL	6.23	5.91	6.19	6.38	6.28	6.19	0.36	5.82
KBL	5.62	6.67	6.68	6.59	6.33	6.38	0.37	5.86

(As per Annexure A15)

The above table shows a decreasing trend of ratios of EBL and MBL where as KBL has a fluctuating trend. In average KBL has the highest ratio of 6.38 and

EBL has the lowest ratio of 5.61. EBL's ratio suddenly dropped during year 2061/62. Considering coefficient of variation, MBL has the comparatively lowest CV of 5.82% while EBL has the highest CV of 13.09%. CV's of KBL and MBL are at somewhat same level.

This indicates the interest earning of KBL is highest and consistent. Hence KBL's performance is better regarding interest earning.

#### 6 Total Interest Earned to Total Operating Income Ratio

This ratio indicates how efficiently the bank is mobilizing its funds in interest bearing assets.

It is calculated as:

$$\text{Total Interest Earned to Total Operating Income Ratio} = \frac{\text{Total Interest Earned}}{\text{Total Operating Income}}$$

**Table 4.16**

#### **Total Interest Earned to Total Operating Income Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	83.92	84.03	84.94	84.24	83.80	84.18	1.08	1.28
MBL	88.32	89.26	87.26	86.07	87.78	87.74	0.88	1.01
KBL	90.48	92.47	90.62	91.20	90.84	91.12	0.93	1.03

(As per Annexure A16)

During the five-year period's ratios of all banks are in fluctuating trend. In average, KBL has the highest ratio of 91.12 while EBL has the lowest average ratio of 84.18. While considering the coefficient of variation, MBL has the lowest value of 1.01% and EBL has the highest value of 1.28%.

This clearly indicates that KBL is in better position regarding the mobilization of interest bearing assets such as loan and advance and investment and its

interest income makes up a major portion of the profit. On the other hand EBL has the highest CV indicating high fluctuation and poor performance.

#### 4.1.4 Risk Ratio

The possibility of risk makes a bank's investment a challenging risk. A bank has to take risk to get return on its investment. The risk taken is compensated by the increase in profit. The level of risk the bank is bearing is given by the following ratios.

##### 1. Credit Risk Ratio

This ratio measures the possibility that loan will not be repaid or that investment will deteriorate in quality or go into default with consequent loss to the bank. This ratio is also used to assess the level of risk in the bank credit policies. The lower ratio indicates less risk. It is calculated as:

$$\text{Credit Risk Ratio} = \frac{\text{Total Loans \& Advances}}{\text{Total Assets}}$$

**Table 4.17**  
**Credit Risk Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	60.85	49.03	61.41	63.75	66.21	60.25	5.92	9.82
MBL	72.18	78.37	66.73	75.51	68.33	70.22	4.68	6.68
KBL	66.08	74.59	76.00	74.34	74.59	73.12	3.56	4.88

(As per Annexure A17)

The above table shows that all the three bank's credit risk ratios are in fluctuating trend. EBL's ratio has been following increasing trend since 2061/62.

Regarding mean ratios ,KBL has the highest ratio of 73.12 while EBL has the lowest mean ratio of 60.25 .Regarding CV , EBL has the highest value of 9.82% while KBL has the remarkably lowest value of 4.88%.

The above table clearly depicts KBL has the higher average ratio than that of EBL and MBL which does mean KBL has higher credit risk in comparison to other two banks. However EBL’s coefficient of variation is highest indicating variability in the credit policy than that of MBL and KBL.

## 2.Liquidity Risk Ratio

The liquidity risk ratio of a bank defines its liquidity need for its deposits. The higher ratio indicates less risk or vice versa. This ratio is worked out as :

$$\text{Liquidity Risk Ratio} = \frac{\text{Cash and Bank Balance}}{\text{Total Deposit}}$$

**Table 4.18**  
**Liquidity Risk Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	7.83	10.39	11.25	13.15	11.89	10.90	1.79	16.43
MBL	2.37	10.47	9.75	12.36	14.32	9.85	4.07	41.37
KBL	1.42	5.28	4.46	5.45	7.31	4.78	1.93	40.45

(As per Annexure A18)

The table shows the fluctuating trend of liquidity risk ratios of the three banks during the five years of study. MBL’s ratio has been following increasing trend since 2062/63. EBL has the highest liquidity risk ratio of 10.90 and KBL has the lowest mean ratio of 4.78. The CV of MBL is highest at 41.37% while EBL has the lowest CV at 16.43%. CV’s of KBL and MBL are at somewhat same level.

The above finding shows that liquidity risk of MBL is highest as it has the highest CV where as comparatively EBL has the lowest risk.

### 3. Capital Risk Ratio

Capital risk ratio measures the bank's ability to attract deposits and inter-bank funds. It also determines the level of profit a bank can earn. The ratio is calculated as:

$$\text{Capital Risk Ratio} = \frac{\text{Capital ( Paid up } \Gamma \text{ Reserve)}}{\text{Risk Weighted Asset}}$$

**Table 4.19**  
**Capital Risk Ratio**

Banks	Fiscal years					Mean	Standard Deviation	Coefficient of Variation
	2060/61	2061/62	2062/63	2063/64	2064/65			
EBL	9.26	10.10	9.82	8.79	11.04	9.80	0.79	8.06
MBL	22.23	12.59	15.34	14.03	14.14	15.67	3.37	21.55
KBL	15.62	11.49	12.53	11.48	12.13	12.65	1.54	12.14

(As per Annexure A19)

The above table indicates that the variability of capital risk ratios during five-year study of three banks are in fluctuating trend. Ratio of EBL is in increasing trend up to the year 2064/65. MBL's ratio has remarkably increased during 2060/61. MBL has the highest mean ratio of 15.67 and EBL has the lowest mean ratio of 9.80. MBL has also remarkably highest CV of 21.55% while EBL has lowest CV of 8.06% respectively.

Hence it can be said that EBL is in least risky position than other two banks due to lower mean and lower CV.

#### 4.1.5 Growth Ratio

Growth ratio represents how well the banks are maintaining their economic and financial status. Under this section, growth ratio of total deposit, total investment, loan and advance and net profit are calculated. Growth ratios are calculated as per schedule 2.

## 1. Growth Ratio of Total Deposit

**Table 4.20**

### **Growth Ratio of Total Deposit.**

Banks	Fiscal year					Growth ratio%
	2060/61	2061/62	2062/63	2063/64	2064/65	
EBL	8063.90	10097.69	13802.45	18186.25	23976.29	31.31%
MBL	2754.6	5586.80	7893.30	9475.45	11101.18	41.68%
KBL	4807.93	6268.95	7768.96	10557.42	12778.16	27.68%

The above table shows the comparative growth rate of total deposit of three banks. MBL has much higher rate of growth ratio of 41.68% while KBL has the lowest ratio of 27.68%. This concludes that MBL's performance in collection of deposit is better year-by-year in comparison to EBL and KBL.

## 2. Growth Ratio of loan and Advance

**Table4.21**

### **Growth Ratio of loan and Advance**

Banks	Fiscal year					Growth ratio%
	2060/61	2061/62	2062/63	2063/64	2064/65	
EBL	5834.12	7618.67	9801.31	13664.08	18339.08	33.15%
MBL	2493.10	5061.43	6068.43	7129.89	8704.98	36.69%
KBL	3649.00	5584.64	6891.86	8929.01	11338.73	32.76%

The above comparative table depicts the growth rate of loan and advance during the five-year period of three banks. It is clear from the table that growth ratio of MBL is better than that of EBL and KBL. MBL's growth ratio is 36.69% while KBL has the lowest ratio of 32.76%. Growth ratio of EBL and KBL is not much different. This indicates that MBL has performed better in terms of granting loan and advance in compared to other banks during these five years.

### 3. Growth Ratio of Total Investment

**Table 4.22**

#### **Growth Ratio of Total Investment.**

Banks	Fiscal year					Growth ratio%
	2060/61	2061/62	2062/63	2063/64	2064/65	
EBL	2535.66	2128.91	4200.51	4984.31	5059.56	18.85%
MBL	229.59	194.25	907.75	951.55	832.70	38.00%
KBL	901.60	1392.56	1583.23	1298.21	1644.91	16.22%

The above table reflects the growth rate of investment of each bank year-by-year. Comparatively, the growth ratio of MBL (38%) is much higher than that of other two banks. Growth ratio of EBL and KBL is not much different. This signifies that investment of MBL is much more better than the other two banks.

### 4. Growth Ratio of Net Profit.

**Table 4.23**

#### **Growth Ratio of Net Profit.**

Banks	Fiscal year					Growth ratio%
	2060/61	2061/62	2062/63	2063/64	2064/65	
EBL	143.57	168.21	237.29	296.41	450.12	33.06%
MBL	46.48	84.87	134.00	75.98	127.82	28.63%
KBL	48.68	84.20	103.67	170.26	180.37	38.74%

The above table shows the comparative growth rate of net profit of all three banks. KBL has significantly highest growth ratio of 38.74% than that of other two banks and MBL has the lowest growth ratio of 28.63%. This indicates KBL has maintained better growth ratio of net profit during these five years in compared to the other two banks.

From the above analysis, it is found that MBL'S operation with regards to collection of deposit, granting of loan and advance and total investment is comparatively better; and in terms of net profit, KBL is better.

## 4.2 Analysis of Statistical Tools

In order to achieve the objectives of the study some essential statistical tools such as trend analysis, coefficient of correlation analysis, standard deviation and coefficient of variation are used.

### 4.2.1 Trend Analysis

Under this topic current and projected trend values of loan and advance to total deposit ratio and total investment to total deposit ratio are calculated as per schedules 3- 8.

**Table 4.24**  
**Current and Projected Trend Values of Loan and Advance to Total Deposit.**

Years	Banks		
	EBL	MBL	KBL
2060/61	72.496	74.414	81.162
2061/62	73.29	78.367	83.279
2062/63	74.084	82.32	85.396
2063/64	74.878	86.273	87.513
2064/65	75.672	90.229	89.63
2065/66	76.466	94.179	91.747
2066/67	77.054	98.132	93.864
2067/68	78.054	102.085	95.981
2068/69	78.848	106.038	98.098
2069/70	79.642	109.991	100.215

The above table depicts that projected trend values of all three banks are in increasing trend. This trend of ratio signifies that MBL and KBL may use more than 90% while EBL may use more than 70% of their total deposit in providing loan and advance up until FY 2069/70. Other things remaining the same, the

ratio of loan and advance to total deposit of MBL and KBL will be 109.99% and 10.215% respectively for the FY 2069/70. In case of EBL, it may use 79.642% of its deposit in loan and advance if it is to follow the above trend. The ratio of MBL will increase by double during the mentioned above time.

**Table 4.25**  
**Current and Projected Trend Values of Total Investment to Total Deposit Ratio.**

Years	Banks		
	EBL	MBL	KBL
2060/61	29.162	7.186	21.634
2061/62	27.727	7.677	19.466
2062/63	26.292	8.168	17.298
2063/64	24.857	8.659	15.13
2064/65	23.422	9.15	12.962
2065/66	21.987	9.641	10.794
2066/67	20.552	10.132	8.626
2067/68	19.117	10.623	6.458
2068/69	17.682	11.114	4.29
2069/70	16.247	11.605	2.122

The above table shows that the present and projected trend values of EBL and KBL are in decreasing trend and trend values of MBL are in increasing trend. Other things remaining the same, if this current trend continues, the ratio of EBL, MBL and KBL on total investment to total deposit will be 16.24%, 11.60% and 2.12% for the Fiscal Year 2069/70 respectively. In the case of MBL, the ratio will increase by year 2069/70 which means that MBL will use large portion of its deposit in investment in different sectors in the forthcoming years. Thus, it can be conducted that EBL's and KBL's investment policy is predicted decreasing and MBL's investment policy is predicted to be increasing.

#### 4.2.2 Karl Pearson's Coefficient of Correlation Analysis

Under this analysis, Karl Pearson coefficient of correlation is used to set the relationship between total deposit and loan and advance, total deposit and total investment and outside asset and net profit.

##### 1. Coefficient of Correlation Between Total Deposit and Loan & Advance:

Coefficient of correlation (r) between deposit and loan & advance measures the degree of relationship between these two variables. The main objective of correlation analysis between deposit and loan & advance is to find out whether deposit is significantly used as loan & advance or not.

**Table 4.26**

##### **Coefficient of Correlation Between Total Deposit and Loan & Advance**

Evaluation Criteria	Banks		
	EBL	MBL	KBL
r	0.99	0.99	1.05
r <sup>2</sup>	0.997065492	0.984624512	1.102843226
P.E.	0.000885181	0.004637948	(0.031022204)
6P.E.	0.00531108	0.027827687	(0.186133221)

Here, deposit is the independent variable (x) and loan and advance is dependent variable (y). The main objective of computing 'r' between these two variables is to justify whether deposit is significantly used as loan and advance or not. The above table shows that the value of 'r', 'P.E' and '6 P.E' between deposit and loan and advance of EBL with comparison to MBL and KBL during the study period.

The above table in respect to EBL shows that the coefficient of correlation between deposit and loan & advance is 0.99. Furthermore, when we consider the value of coefficient of determination (r<sup>2</sup>), it is 0.9971 which does mean 99.7% of the variation in the dependent variable is explained by the independent variable. Likewise, considering the value of 'r' and comparing it

with 'P.E.' and '6P.E.' we find that  $r$  is greater than the value of P.E. which does mean that the value of ' $r$ ' is significant.

Likewise MBL have the positive relationship between deposit and Loan & Advance. The relationship is significant since the value of ' $r$ ' is greater than 6 P.E and the value of  $r^2$  shows high in the dependent variable which has been explained by the independent variable. This indicates MBL and EBL are successful to mobilize their deposit appropriately as loan and advance. But KBL is the most successful to mobilize its deposit because the value of  $r^2$  shows high percent comparing to other two banks.

## 2. Coefficient of Correlation Bbetween Total Deposit and Total Investment:

Coefficient of Correlation ( $r$ ) between total deposit and total investment measures the degree of relationship between these two variables. The main objective of Coefficient of Correlation ( $r$ ) between total deposit and total investment is to find out whether deposit is significantly used as investment or not.

**Table 4.27**

### **Coefficient of Correlation Between Total Deposit and Total Investment**

<b>Evaluation Criteria</b>	<b>Banks</b>		
	<b>EBL</b>	<b>MBL</b>	<b>KBL</b>
$r$	0.89	0.85	0.71
$r^2$	0.804152307	0.717051555	0.5020557339
P.E.	0.059076589	0.085350145	0.1502026821
6P.E.	0.354459534	0.5121008701	0.9012160923

Here, deposit is the independent variable ( $x$ ) and total investment is dependent variable ( $y$ ). The main objective of computing ' $r$ ' between these two variables is to justify whether deposit is significantly used as total investment or not. The above table shows the value of ' $r$ ', 'P.E', and '6 P.E' between deposit and total investment of EBL with comparison to MBL and KBL during the study period.

From the above table in respect to EBL, it is found that coefficient of correlation between deposit and total investment is 0.89. It shows the positive relationship between these two variables. Further more, when we consider the value of coefficient of determination ( $r^2$ ), it is 0.8041 which does mean 80.41% of the variation in the dependent variable is explained by the independent variable. Considering the value of 'r' and comparing it with 'P.E.' and '6P.E.' we find that r is greater than value of '6P.E.' which does mean that the value of 'r' is significant or there is relationship between deposit and total investment. Hence, EBL has been successful in utilizing the deposit as investment.

Likewise, MBL and KBL have the positive relationship between deposit and total investment. The relationship is significant and the value of  $r^2$  shows 71.70% and 50.20% in the dependent variable of MBK and KBL respectively which has been explained by the independent variable. This indicates that MBL and KBL are more successful in maximizing the investment of their deposit.

### 3. Coefficient of Correlation Between Outside Asset and Net Profit

Coefficient of correlation (r) between outside asset and net profit measures the degree of relationship between these two variables. The main objective of correlation analysis between outside asset and net profit is to find out capability of earning net profit mobilizing its outside asset.

**Table 4.28**

**Coefficient of Correlation Between Outside Assets and Net Profit**

Evaluation Criteria	Banks		
	EBL	MBL	KBL
r	0.98	0.48	0.097
$r^2$	0.970712553	0.23047746	0.009846679
P.E.	0.008834429	0.232123065	0.129878995
6P.E.	0.053006572	1.392738392	0.79273973

Here, outside asset is the independent variable (x) and net profit is dependent variable (y). The main objective of computing 'r' between these two variables is to justify whether net profit is significantly correlated with respect to outside asset or not.. The above table shows the value of 'r', 'P.E', and '6 P.E' between outside asset and net profit of EBL with comparison to MBL and KBL during the study period.

From the above table in respect to EBL, it is found that coefficient of correlation between outside asset and net profit is 0.98. It shows the positive relationship between these two variables. Further more, when we consider the value of coefficient of determination ( $r^2$ ), it is 0.9707 which does mean 97.07% of the variation in the dependent variable is explained by the independent variable. On the other hand, considering the value of 'r' and comparing it with 'P.E.' and '6P.E.', we find, that 'r' is greater than value of '6P.E.' which does mean that EBL is more capable to earn more net profit mobilizing its outside asset.

Likewise, MBL and KBL have the positive relationship between outside asset and net profit and the relationship is significant. The value of  $r^2$  shows 23.04% and 0.94% in the dependent variable of MBL and KBL respectively which has been explained by the independent variable. This indicates that MBL and KBL have significant correlation between mobilization of funds and return.

### **4.3 Major Findings of the Study**

After analyzing the data derived from different sources the researcher has been led to the following findings classified in terms of liquidity, assets management, profitability, risk position and growth ratio.

#### **4.3.1 Liquidity Ratio**

) MBL has the highest current mean ratio and variability. So it has no problem in short-term obligation in comparison to EBL and KBL but it is highly instable. But on the other hand EBL has

lowest variability which indicates its high stability in term of liquidity.

- ) EBL has the highest mean ratio of cash and bank balance to total deposit and variability of EBL is also lowest which shows its liquidity is strong in regards of cash and bank balance and total deposit. But KBL has lowest mean ratio which shows its liquidity is weakest.
- ) EBL has the highest mean ratio of cash and bank balance to current asset than other two banks. But variability of EBL is also lowest which shows that it has the most ability to manage the withdrawal from the customer. But KBL has lowest mean ratio which indicates the less ability to mobilized its fund in profitable sectors.
- ) In average, EBL has maintained higher investment on government securities to current asset where as MBL has lowest average ratio which indicates that the MBL has lowest investment in government securities. MBL has also highest variability indicating instability in term of investment of government securities.
- ) EBL has the lowest mean ratio of loan and advance to current asset than the other two banks and it has highest variability than MBL and KBL indicating its poor performance. But KBL has highest mean ratio and lowest variability which show its good performance.

#### **4.3.2 Asset Management Ratio**

- ) The mean ratio of loan and advance to total deposit of EBL is lower than MBL and KBL; and variability of EBL is also lowest which shows its investment is stable. But KBL has highest mean ratio. It indicates that KBL has invested major portion of its total deposit into loan and advance.
- ) The mean ratio of total investment to total deposit of EBL is higher than that of KBL and MBL and variability of EBL is also lowest which shows stability. MBL's variability of ratio is

remarkably highest which indicates high instability in term of total investment. The above finding shows that EBL's utilization of total deposit as investment is better than other two banks.

- ) In average, KBL has maintained higher loan and advance to total working fund ratio than those of EBL and MBL which indicates higher risk. Ratios and variations of EBL are lowest indicating better performing level despite of lower average ratio.
- ) EBL has the highest mean ratio of investment on government securities to total working fund than the other two banks and it has lowest variability than MBL and KBL indicating its good performance. EBL has invested remarkably high amount in government securities. The variability of MBL is remarkably highest which indicates it has invested negligible amount in government securities.
- ) EBL has the highest mean ratio of investment on shares and debentures to total working fund and it has highest CV indicating inconsistency and exposure to higher risk. On the other hand MBL is more consistent and stable in terms of investment on shares and debentures than EBL and KBL.

### **4.3.3 Profitability Ratio**

The profitability ratios of EBL, MBL and KBL reveal that:

- In average, EBL has the higher ratio of return on loan and advance than that of MBL and KBL. MBL and KBL have some what equal ratios. KBL has comparatively lowest ratio indicating more uniformity on earning return from loan and advance.
- The mean ratio of return on total working fund of EBL is higher than of MBL and KBL. KBL's return on working

fund is more consistent than that of EBL and MBL. EBL's variation is highest showing high inconsistency. It can be concluded that EBL is earning highest profit in comparison to its net worth but it is also in the position of higher risk, too.

- The mean ratio of return on equity of MBL is lower than that of EBL and KBL and its CV is higher too. EBL has the highest mean and lowest CV. Hence, EBL's profitability is better regarding share holders' equity and MBL's profitability is poor.
- In average, MBL has higher ratio of total interest earned to total outside asset than that of EBL and KBL. But all three banks have ratios of somewhat same level. EBL has the highest CV which indicates the riskier positions.
- In average, KBL's ratio of total interest earned to total working fund is higher in comparison to EBL and MBL. Variability of KBL and MBL are at somewhat same level. This indicates the interest earning of KBL is better.
- In average, KBL has the higher ratio of total interest earned to total operation income than EBL and MBL. It is also more consistent than the other two banks. It clearly indicates that KBL is in better position regarding the mobilization of interest bearing assets such as loan and advance and investment. KBL's major portion of profit is composed of interest income in comparison with other banks. EBL has lowest mean and highest variation showing poor performance.

#### **4.3.4 Risk Ratio**

The risk ratios of EBL, MBL and KBL reveal that:

- ) KBL has the higher average credit risk ratio than that of EBL and MBL. EBL's coefficient of variation is higher indicating variability in the credit policy. KBL has also lower CV indicating uniformity in investment in loan and advance.
- ) In average, EBL has the highest liability risk ratio in comparison to the other two banks. The CV of EBL has also lowest. It shows that its liquidity risk is highest.
- ) MBL has the highest capital risk ratio in comparison to EBL and KBL and its variability of ratios is extremely high. EBL has lowest mean ratio and CV. Hence, MBL and KBL are both in risky position while EBL is in least risky position.

#### **4.3.5 Growth Ratio**

The growth ratio of EBL, MBL and KBL shows that:

- ) The growth ratio of total deposits of MBL is highest at 41.68% and KBL has lowest at 27.68%. Hence, it can be said that MBL has been most successful in collection deposit over the five-years' period.
- ) The growth ratio of loan and advance of MBL is better with 36.69% than that of EBL and KBL. KBL has lowest growth ratio of 32.76%. It shows that MBL has become most successful in granting loan and advance than EBL and KBL.
- ) The growth ratio of total investment of MBL is better with 38% than that of EBL with 18.85% and 16.22%. It shows that MBL's performance is extremely well while KBL's performance is poor.
- ) The growth ratio of net profit of KBL is higher with 38.74% than that of EBL and MBL with 33.06% and 28.63%. It shows that KBL has maintained better profit.

#### **4.3.6 Co-efficient of Correlation Analysis.**

Coefficient of correlation analysis between different variables of EBL, MBL and KBL shows that:

- ) Coefficient of correlation between deposit and loan and advance of KBL is found to be higher than the other two banks. This indicates good position of KBL in mobilizing deposit as loan and advances. In the case of EBL and MBL, the coefficient of correlation between deposit and loan & advance are found same. It indicates there is significant relationship between deposit and loan & advance.
- ) EBL has higher coefficient of correlation between deposit and total investment than the other two banks. This shows that EBL is more successful in mobilizing deposit as total investment. But MBL and KBL are less successful in maximizing the investment of their deposit than EBL.
- ) EBL has higher coefficient of correlation between outside assets and net profit. It shows that EBL is most capable to earn net profit mobilizing its outside asset where as MBL and KBL have positive relationship between outside asset and net profit.

#### **4.3.7 Trend Analysis**

One of the reliable statistical tools that help the researcher to draw the conclusions is trend analysis. The trend analysis of the research period (2061 to 2065) and its projection for the next five years for loan and advance to total deposit and total investment to total deposit of EBL, MBL and KBL shows that:

- ) Trend values of loan and advance to total deposit of all three banks are in increasing trend. MBL and KBL may utilize more than 100% of their deposit in loan and advance which is abnormally high. It show that KBL and MBL have significantly high risk. The increasing trend of MBL is fast and

EBL is slow and may utilize more than 70% of its deposit in loan and advance.

) Trend values of total investment to total deposit of EBL and KBL are decreasing where as MBL is increasing. It shows that EBL's and KBL's investment policy is predicted decreasing and MBL's investment policy is predicted to be increasing. The two banks EBL and KBL should review their investment policy.

# **CHAPTER -V**

## **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

This chapter is the core of the study that summarizes the study, draws the conclusion from analytical points of view based on the data analyzed by using financial and statistical tools, and presents relevant suggestions or recommendations for the better performance of the commercial bank.

### **5.1 Summary**

After analyzing the data required for the study, the final and the most important task to sum up the study is to find the issues and gaps of the study and to recommend for further improvement of the banks. The findings and recommendations of the study would be significant to the better management of the banks to sort out the drawbacks, initiate measures and to achieve the desired goal.

It can be summarized from the study that the commercial banks are the essential pillars for the economic development of the country. All the economic activities are directly or indirectly channel through the commercial banks because they help the government in the process of channeling the available resources in the needed sectors. The commercial banks collect the idle money from door to door and from purse to purse as deposit and they invest it to the productive sectors in the form of loan and advances. Therefore, the collecting money as deposits and investment activities of commercial banks play the vital role in the economic development of the country.

The political instability and the trend of the mushrooming of the commercial banks itself is a great problem in the banking sector. However, the increasing

activities of the commercial banks play vital role in the overall economic development of the country. Successful formulation of investment policy and its implementation is the prime requisite for the better performance of the banks. The better performance attracts the customers to deposit their money in the banks that mobilize the deposit in the form of loan and advance in the needed sectors for the overall economic development of the country.

To analyze investment activities of commercial banks and their performances three banks are taken as reference. These banks are Everest Bank Ltd., Kumari Bank Ltd. and Machhapuchchhre Bank Ltd. During the research work, a brief review of literature has been conducted to make the concept of investment of commercial banks more clear. Various published reports, articles, journals, text books, websites and thesis have been reviewed for this purpose.

This study is mainly based on secondary data of past 5 years. All data mainly depend upon balance sheets, profit and loss accounts and annual reports of the banks. The data are collected from different sources like annual bank reports, reports published by Nepal Stock Exchange and related websites Data are analyzed using various financial as well as statistical tools to fulfill the objectives of the study and to extract major findings, conclusion and recommendations. The main purpose of the study is not only to draw the attention to the errors but also to provide the appropriate measures as recommendations for the better performance of these banks.

## **5.2 Conclusion**

After the data have been analyzed with the help of financial and statistical tools, the conclusion of the study based on the major findings is given below:

The liquidity ratios show that the liquidity position of EBL is stronger than the liquidity position of MBL and KBL. At the same time the liquidity position of

EBL is highly fluctuating showing EBL's exposure to higher risk in comparison to MBL and KBL.

The findings have also revealed that EBL has more investment in government securities which is considered as the least risky asset.

Regarding the asset management ratio and deposit mobilization KBL is found to be more successful than other two banks; but EBL and MBL are also performing satisfactorily. EBL's investment on share and debenture is highest and its performance regarding to total investment is also good.

From the study, it can be concluded that neither bank's profitability position is clearly better than other banks. However, EBL seems to be in somewhat better position regarding profit earning. In one word it can be said that their profitability is in average position.

Regarding the risk ratios, it is found that MBL and KBL are facing the higher risk than that of EBL but the risk level of all the three banks is not very different.

Similarly, the growth ratios show that MBL's operation regarding to collection of deposits, granting of loan and advances; and investment is comparatively better than other two banks where as the growth ratio of KBL is the least..

Besides the financial tools, some statistical tools have been used to analyze the data to grab the real positions of the banks. The coefficient of correlation analysis between different variables of EBL, MBL and KBL show that EBL is performing extremely well regarding to profit earning from outside assets and total investment. MBL and KBL are same regarding to mobilization of deposits as loan and advances.

The trend analysis study reveals that all the banks are mobilizing their total deposit in to loan and advances in the increasing trend which is the sign of efficient mobilization of the deposit. The decreasing trend of EBL's and KBL's mobilization of total deposit into total investment reveals their weak investment policy. MBL's performance is satisfactory in both cases.

### **5.3 Recommendations**

After considering the findings and conclusions of the study, the following suggestions are recommended to the concerned banks for their better performance in the forthcoming days.

#### **5.3.1 Liquidity Position**

The liquidity position of a bank can be affected by external as well as internal factors which include the overall economic scenario, interest rates, investment situation, supply and demand position of deposits and loans, central bank's instructions, the lending policy, capability of management, strategic planning, funds flow situation etc. As the ratios of cash and bank balance to total deposit of MBL and KBL are significantly lower than that of EBL, it is recommended to increase cash and bank balance to meet current obligations and loan demand. The ratios of KBL are highly fluctuating than that of MBL and EBL which indicates high exposure to risk. So, it is recommended to KBL to maintain its liquidity position.

The investment on government securities such as treasury bills, development bonds and national saving bonds are supposed to be the least risky and are highly liquid in nature. The study shows that MBL has not invested enough funds in government securities. So, MBL is recommended to invest much more funds in this risk free sector which will decrease risk and increase the liquidity position.

### **5.3.2 Asset Management Position**

To achieve success in competitive banking environment deposit must be utilized efficiently in the form of loan and advances and other investment since deposit makes up the major portion of total assets. Negligence or poor investment policy in utilizing the deposit could be one of the main reasons of failure. It is found from the study that EBL's loan and advance to total deposit is lower than that of MBL and KBL which indicates that EBL has not properly used its funds as loan and advances. Hence, it is recommended to EBL to follow liberal policy to utilize the funds to the optimum point.

The study further shows that loan and advance to total working fund ratio of KBL is highly fluctuating exposing to greater risk. So KBL is recommended to lend in more consistent way. So KBL is highly recommended to reevaluate its lending policy.

Total investment makes up an important portion of total assets and government securities makes up the major portion of total investment as it is the least risky investment. Since MBL has the lowest ratio of total investment to total deposit, it is highly recommended to invest more in government securities.

Commercial banks need to mobilize its funds in different sectors such as purchasing share and debentures of other financial and non financial companies creating a least risky portfolio. Out of total working funds EBL has invested more of its funds as total investment. MBL and KBL are recommended to invest in different kind of companies in different sectors.

Variability of EBL is also higher indicating risky portfolio. So, it is recommended to reevaluate its investment portfolio.

Different kinds of factors such as political instability and influences, lack of the necessary skills of project appraisal, improper collateral evaluation, irregular

supervision and lack of entrepreneurship attitude result into loan default. Political and administrative elements are also highly prevailing in each and every sectors of Nepalese investment. So, commercial banks should always keep a distance from these influences.

Non-performing assets (NPA) affect the net profit of the banks. Commercial banks experience many difficulties in recovering loans and their large amount of loan is being blocked as NPA. There is also the lack of suitable mechanism through which the default loans can be recovered. So, the three banks (i.e. EBL, KBL and MBL) are suggested to implement a sound collection policy including procedures which ensure rapid identification of bad loans, immediate contact with borrower, continue follow -up until loan is recovered and legal procedure if required.

### **5.3.3 Profitability Position**

EBL, MBL and KBL being the banks of private sectors, their primary goal is to earn higher profit. They should be more careful in increasing profit in a real sense to maintain the confidence of shareholders, depositors and customers. Since interest income makes up the major portion of net profit, the banks should be more careful while making investment in loan and advance and other investments. The banks should have sound credit policy for better performance regarding loan and advance. All the three banks have the fluctuating total income and so have not been able to gain the optimum profit. So, they are recommended to decrease the expenses by controlling the operating expenses as well as by collecting the interest free deposits and they are also recommended to be careful while lending.

### **5.3.4 Risk Position**

Highest form of risk a bank faces is in the form of NPA. So, the bank should make through evaluation regarding collateral and credit worthiness of the customer. For this, the bank should have sound credit polity.

Portfolio management of bank assets basically means allocation of funds into different components of banking assets having different degrees of risk and varying rate of return in such a way that the conflicting goal of maximum yield and minimum risk can be achieved. So, portfolio condition should be examined from time to time and attention should be given to maintain equilibrium in the portfolio condition as far as possible. The bank should make continuous efforts to explore new, competitive and high yielding investment opportunities to optimize its investment portfolio.

In the present scenario when there is high liquidity in the market and most of the commercial banks are flooding towards the retail banking, these three banks should also come up with innovative and competitive rates to grab the market position. The most effective weapon for achieving this target would be to apply very simple procedure and prompt decision on the credit request.

EBL, MBL and KBL need to adopt innovative approach for marketing in the light of growing competition in the banking sector. The business of the bank should be customer oriented. They should strengthen and activate their marketing function as it is an effective tool to attract and retain the customers. For this purpose, the bank should formulate new strategies of serving customers in a more convenient and satisfactory way by introducing the modern technology and offering new facilities to the customers.

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## ANNEXURE

### Annex I

#### Comparative Balance Sheet of Everest Bank Ltd

Particulars	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
J Total Assets (TWF)	9587.57	15540.00	15959.28	21432.57	27698.87
J Current Assets	8399.97	15377.31	15780.67	21243.39	26990.75
1. Cash and Bank Balance	631.81	1049.98	1552.96	2391.43	2852.43
2. Money at call and short notice	187.45	570.00	66.96	-	346.00
3. Loan and Advance	5834.12	7618.67	9801.31	13664.08	18339.08
4. Investment on Government Securities	2466.43	2100.28	3548.61	4704.63	5059.55
5. Interest Receivable	145.26	159.78	51.33	26.07	17.48
6. Miscellaneous Current Assets	84.90	3878.60	126.68	196.59	376.21
<b>Fix Assets</b>	118.37	134.06	152.09	170.09	360.51
J Investment on share	17.11	19.39	19.08	19.08	99.55
J Other Investment	52.12	9.25	632.82	260.60	248.06
<b>Liabilities</b>					
J Current Liabilities	8984.55	14770.39	14696.48	19931.05	25777.64
7. Deposit and Other A/c	8063.90	10097.69	13802.45	18186.25	23976.29
8. Short Term Loan	0.00	30.00	0.00	-	-
9. Bills payable	22.03	17.78	15.81	26.77	49.42
10. Tax provision	67.55	81.91	0.00	15.28	41.14
11. Staff Bonus	13.46	88.92	34.56	45.47	65.86
12. Dividend payable	7.36	10.92	114.67	68.14	140.76
13. Misc. Current liabilities	800.25	4443.17	126.68	198.59	1504.14
J Net worth	540.32	769.61	962.81	1201.52	2025.04
J Share Capital	315.00	455.00	518.00	518.00	831.40
J Shareholder Reserve	225.32	314.61	444.81	551.20	1089.83
J Total Liabilities	9587.57	15540.00	15959.28	21432.57	27698.87

**Annex II**

**Everest Bank Ltd.  
Profit and Loss A/C**

<b>Particulars</b>	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
Interest Income	657.25	719.30	903.41	1144.41	1547.91
Other operating income	125.94	136.69	160.14	214.09	299.13
Total operating income	783.19	855.99	1063.55	1358.5	1847.04
Non operating income	1.87	2.97	2.96	12.21	0.00
Total income (A)	785.06	858.96	1066.51	1370.71	1847.04
<b>Expenditures:</b>					632.63
Interest Expenses	316.37	299.57	401.40	517.17	
Overhead expenses	48.53	60.60	70.92	86.12	157.10
Operating expenses	127.27	129.07	143.56	177.55	236.74
Loan loss provision	58.31	88.93	70.47	89.70	97.74
Provision for bonus	23.46	28.08	31.56	45.47	65.71
Total Expenditure (B)	573.94	606.24	720.91	916.00	1189.93
Profit before tax (A-B)	211.12	252.72	345.60	454.71	657.11
Tax Provision	67.545	84.51	108.31	158.30	206.99
Net profit after tax	143.57	168.21	237.29	296.41	450.12

## Annex III

### Comparative Balance Sheet of Machhapuchchhre Bank Ltd

Particulars	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
J Total Assets (TWF)	3453.8	6458.27	9093.96	10884.491	12739.72
J Current Assets	3233.11	6305.12	8985.71	10624.64	12198.49
1. Cash and Bank Balance	65.25	584.78	769.51	1171.63	1589.72
2. Money at call and short notice	150.0	15.00	718..47	694.0	70.00
3. Loan and Advance	2493.10	5060.43	6068.43	6957.95	8704.98
4. Investment on Government Securities	71.2	127.3	904.4	951.2	827.35
5. Interest Receivable	395.6	422.54	358.67	694.48	800.81
6. Miscellaneous Current Assets	57.96	94.07	166.23	155.35	205.63
<b>Fix Assets</b>	62.3	86.2	104.9	259.5	535.88
J Investment on share	8.94	9.29	0.35	0.35	5.35
J Other Investment	149.45	57.66	3.00	0.00	0.00
<b>Liabilities</b>					
J Current Liabilities	2899.58	5820.53	8162.87	9884..28	11500.94
7. Deposit and other A/c	2754.6	5586.80	7893.30	9475.45	11101.18
8. Short term loan	102.2	154.22	131.68	228.50	88.51
9. Bills payable	5.13	9.32	11.36	21.48	10.31
10. Tax provision	-	0.87	10.46	39.94	56.78
11. Staff bonus	5.18	12.86	19.23	11.40	15.92
12. Dividend payable	-	-	10.46	4.31	8.64
13. Misc. current liabilities	32.47	56.46	86.29	103.2	217.60
J Net worth	554.22	637.72	931.07	1000.28	1230.96
J Share capital	550.0	550.00	715.00	821.6	901.34
J Shareholder reserve	4.33	87.74	216.09	178.61	329.61
J Total Liabilities	3453.8	6458.27	9093.96	10884.49	12739.72

## Annex IV

### Machhapuchhre Bank Ltd.

#### Profit and Loss A/c

Particulars	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
Interest Income	215.20	381.93	563.36	694.48	800.81
Other operating income	28.47	45.96	82.25	112.38	111.45
Total operating income	243.67	427.89	645.61	806.86	912.26
Non operating income	0.00	0.29	18.61	34.33	-0.01
Total income (A)	243.67	428.17	664.22	841.19	912.25
<b>Expenditures:</b>					
Interest Expenses	113.6	187.03	288.66	397.72	407.92
Overhead expenses	19.87	29.58	43.41	54.36	70.92
Operating expenses	42.36	59.97	85.92	104.18	127.09
Loan loss provision	15.98	22.91	34.70	157.61	101.06
Provision for bonus	5.18	12.87	19.23	11.40	18.66
Total Expenditure (B)	196.99	312.36	471.93	725.27	725.65
Profit before tax (A-B)	46.68	115.82	192.29	115.92	186.61
Tax Provision	-	30.95	58.29	39.94	58.78
Net profit after tax	46.68	84.87	134.00	75.98	127.82

**Annex V**  
**Comparative Balance Sheet of Kumari Bank Ltd**

<b>Particulars</b>	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
J Total Assets (TWF)	5522.26	7486.24	9068.12	12010.46	15200.77
J Current Assets	5165.11	7332.98	8976.19	11820.76	14785.67
2. Cash and Bank Balance	68.47	331.08	346.35	575.59	933.84
3. Money at call and short notice	0.00	90.00	145.00	372.21	55.36
4. Loan and Advance	3649.00	5584.64	6068.43	6957.95	11338.73
5. Investment on Government Securities	601.60	1119.99	1114.31	1297.86	1469.09
6. Interest Receivable	727.01	166.95	385.36	577.47	658.73
7. Miscellaneous Current Assets	119.03	40.32	93.31	68.65	329.92
<b>Fix Assets</b>	57.15	82.98	91.93	189.32	221.88
J Investment on share	0.00	0.35	0.35	0.35	18.22
J Other Investment	300.00	69.93	468.57	-	175.00
<b>Liabilities</b>					
J Current Liabilities	4988.86	6844.48	8204.27	10984.83	13424.77
8. Deposit and other A/c	4807.93	6268.95	7768.96	10557.42	12774.28
9. Short term loan	0.00	401.76	251.40	212.97	100.00
10. Bills payable	14.63	7.33	11.91	16.55	65.29
11. Tax provision	20.43	40.78	43.45	78.30	82.95
12. Staff bonus	7.68	13.89	14.71	24.86	26.33
13. Dividend payable	-	-	6.57	-	-
14. Misc. current liabilities	138.19	111.77	107.27	94.73	375.92
J Net worth	570.00	641.75	863.84	1025.63	1376.02
J Share capital	500.00	500.00	625.00	750.00	1070.00
J Shareholder reserve	33.40	141.76	238.85	275.63	306.00
J Debenture	-	-	-	-	400.00
J Total Liabilities	5522.26	7486.24	9268.12	12010.46	15200.77

**Annex VI**  
**Kumari Bank Ltd.**  
**Profit and Loss A/C**

<b>Particulars</b>	<i>(Rs. in million)</i>				
	2060/61	2062/63	2063/64	2064/65	2065/66
Interest Income	310.21	499.92	605.53	791.28	962.76
Other operating income	32.61	40.68	62.66	76.34	97.10
Total operating income	342.82	540.6	668.19	867.62	1059.86
Non operating income	–	0.01	5.08	6.12	18.69
Total income (A)	342.82	540.60	673.26	873.74	1078.55
<b>Expenditures:</b>					
Interest Expenses	163.90	240.13	337.06	397.05	498.78
Overhead expenses	28.57	42.40	59.82	74.24	89.53
Operating expenses	56.44	71.81	88.68	104.08	135.37
Loan loss provision	17.12	47.40	25.87	24.95	65.23
Provision for bonus	7.68	13.89	14.71	24.86	26.33
Total Expenditure (B)	273.71	415.62	526.14	625.18	815.24
Profit before tax (A-B)	69.11	124.98	147.12	248.56	263.32
Tax Provision	20.43	40.78	43.45	72.30	82.92
Net profit after tax	48.68	84.20	103.67	170.26	180.37

## Financial Ratios

### Annexure 1

#### Current Ratio

Fiscal Year	EBL			MBL			KBL		
	Current Ratio (%)	Current Assets	Current Liabilities	Current Ratio (%)	Current Assets	Current Liabilities	Current Ratio (%)	Current Assets	Current Liabilities
2060/61	0.94	8399.97	8984.55	1.11	3233.11	2899.58	1.03	5165.11	4988.86
2061/62	1.04	15377.31	14770.39	1.08	6305.12	5820.53	1.07	7332.98	6844.48
2062/63	1.07	15780.67	14696.47	1.10	8985.71	8162.87	1.09	8976.19	8204.27
2063/64	1.06	2124.39	19931.05	1.07	10624.64	9884.28	1.07	11820.79	10984.83
2064/65	1.05	26990.75	25777.64	1.06	12198.49	11500.94	1.10	14785.67	13424.77
Mean	1.032			1.084			1.07		
S.D.	0.084			0.09			0.07		
C.V.	4.55			8.33			6.54		

#### Cash and Bank Balance to Total Deposit Ratio

### Annexure 2

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Cash and Bank Balance	Total Deposit	Ratio (%)	Cash and Bank Balance	Total Deposit	Ratio (%)	Cash and Bank Balance	Total Deposit
2060/61	7.83	631.81	8063.90	2.37	65.25	2754.6	1.42	68.47	4807.93
2061/62	10.39	1049.98	10097.69	10.46	584.78	5586.80	5.28	331.08	6268.95
2062/63	11.25	1552.96	13802.45	9.75	769.51	7893.30	4.46	346.35	7768.96
2063/64	13.15	2391.43	18186.25	12.36	1171.63	9475.45	5.45	575.59	10557.42
2064/65	11.13	2667.97	23976.29	14.32	1589.72	11101.18	7.31	933.84	12778.16
Mean	10.75			9.85			7.78		
S.D.	1.72			4.07			1.93		
C.V.	16			41.32			40.37		

## Cash and Bank balance to Current Asset Ratio

### Annexure 3

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Cash and Bank Balance	Current Assets	Ratio (%)	Cash and Bank Balance	Current Assets	Ratio (%)	Cash and Bank Balance	Current Assets
2060/61	7.52	631.81	8399.97	2.02	65.25	3233.11	1.32	68.47	5165.11
2061/62	6.83	1049.98	15377.31	9.27	584.78	6305.12	4.54	331.08	7332.98
2062/63	9.84	1552.96	15780.67	8.56	769.51	8985.71	3.86	346.35	8976.19
2063/64	11.25	2391.43	21243.39	11.03	1171.63	10624.64	4.87	575.59	11820.79
2064/65	9.88	2667.97	26990.75	13.03	1589.72	12198.49	6.31	933.84	14785.67
Mean	9.06			8.782			4.17		
S.D.	1.66			3.72			1.65		
C.V.	18.32			42.36			39.56		

## Investment on Government Securities to Current Asset Ratio

### Annexure 4

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Government securities	Current Assets	Ratio (%)	Government Securities	Current Assets	Ratio (%)	Government Securities	Current Assets
2060/61	29.6	2466.43	8399.97	2.20	71.2	3233.11	11.65	601.60	5165.11
2061/62	13.66	2100.28	15377.31	2.02	127.3	6305.12	15.27	1119.99	7332.98
2062/63	22.48	3548.61	15780.67	10.06	904.4	8985.71	12.41	1114.31	8976.19
2063/64	22.15	4704.63	21243.39	8.95	951.2	10624.64	10.98	1297.86	11820.79
2064/65	18.75	5059.55	26990.75	60.78	8257.35	12198.49	9.93	1469.09	14785.67
Mean	21.28			6.002			12.05		
S.D.	5.14			3.35			1.79		
C.V.	24.15			55.81			14.87		

## Loans and Advance to Current Asset Ratio

### Annexure 5

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Loan and Advance	Current Assets	Ratio (%)	Loan and Advance	Current Assets	Ratio (%)	Loan and Advance	Current Assets
2060/61	69.45	5834.12	8399.97	77.11	1493.10	3233.11	70.65	3649.00	5165.11
2061/62	49.54	7618.67	15377.31	80.27	5061.43	6305.12	76.16	5584.64	7332.98
2062/63	62.11	9801.31	15780.67	67.53	6068.43	8985.71	76.78	6891.86	8976.19
2063/64	64.32	13664.08	21243.39	67.11	7129.89	10624.64	75.54	8929.01	11820.79
2064/65	67.95	18339.08	26990.75	71.36	8704.98	12198.49	76.68	11338.73	14785.67
Mean	62.67			72.67			75.16		
S.D	7.09			5.31			2.36		
C.V.	11.31			7.31			3.14		

## Loan and Advance to Total Deposit Ratio

### Annexure 6

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Loan and Advance	Total Deposit	Ratio (%)	Loan and Advance	Total Deposit	Ratio (%)	Loan and Advance	Total Deposit
2060/61	72.35	5834.12	8063.90	90.50	2493.10	2754.6	75.89	3649.00	4807.93
2061/62	75.45	7618.67	10097.69	90.59	5061.43	5586.80	89.08	5584.64	6268.95
2062/63	71.01	9801.31	13802.45	76.88	6068.43	7893.30	88.71	6891.86	7768.96
2063/64	75.13	13664.08	18186.25	75.24	7129.89	9475.45	84.57	8929.01	10557.42
2064/65	76.48	18339.08	23976.29	78.41	8704.98	11101.18	88.73	11338.73	12778.16
Mean	74.08			82.32			85.39		
S.D.	2.19			6.83			5.13		
C.V.	2.95			8.30			6.01		

## Total Investment to Total Deposit Ratio

### Annexure 7

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Total Investment	Total Deposit	Ratio (%)	Total Investment	Total Deposit	Ratio (%)	Total Investment	Total Deposit
2060/61	31.44	2535.66	8063.90	8.33	229.59	2754.6	18.75	901.6	4807.93
2061/62	21.08	2128.91	10097.69	3.47	194.25	5586.80	22.21	1392.56	6268.95
2062/63	30.43	4200.51	13802.45	11.50	907.75	7893.30	20.37	1583.23	7768.96
2063/64	27.41	4984.31	18186.25	10.04	951.55	9475.45	12.29	1298.21	10557.42
2064/65	21.10	5059.56	23976.29	7.50	832.7	11101.18	12.87	1644.91	12778.16
Mean	26.29			8.168			17.29		
S.D.	4.46			2.72			4.04		
C.V.	16.96			33.29			23.38		

## Loan and Advance to Total Working Fund Ratio

### Annexure 8

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Loan and Advance	Total working fund	Ratio (%)	Loan and Advance	Total working fund	Ratio (%)	Loan and Advance	Total working fund
2060/61	60.85	5834.12	9587.57	72.18	2493.10	3453.8	66.08	3649.00	5522.26
2061/62	49.03	7618.67	15540.00	78.37	5061.43	6458.27	74.59	5584.65	7486.24
2062/63	61.41	9801.31	15959.28	66.73	6068.43	9093.96	76.00	6891.86	9068.12
2063/64	63.75	13664.08	21432.57	65.50	7129.89	10884.49	74.34	8929.01	12010.46
2064/65	66.21	18339.08	27698.87	68.33	8704.98	12739.72	74.59	11338.73	15200.77
Mean	60.25			70.22			73.12		
S.D	5.92			4.68			3.56		
C.V.	9.82			6.68			4.88		

## Investment on Government Securities to Total Working Fund Ratio

### Annexure 9

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Government Securities	Total Working Fund	Ratio (%)	Government Securities	Total Working Fund	Ratio (%)	Government Securities	Total Working Fund
2060/61	25.73	2466.43	9587.57	2.06	71.2	3453.8	10.89	601.60	5522.26
2061/62	13.51	2100.28	15540.00	1.97	127.3	6458.27	14.96	1119.99	7486.24
2062/63	22.23	3548.61	15959.28	9.95	904.4	9093.96	12.29	1114.31	9068.12
2063/64	21.95	4704.63	21432.57	8.74	951.2	10884.49	10.81	1297.86	12010.46
2064/65	18.26	54059.08	27698.87	6.49	827.35	12739.72	9.66	1469.09	15200.77
Mean	20.33			5.84			11.72		
S.D.	4.17			3.32			1.83		
C.V.	20.51			56.81			15.64		

## Investment on Shares and Debentures to Total Working Fund Ratio

### Annexure 10

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Share and Debentures	Total Working Fund	Ratio (%)	Share and Debentures	Total Working Fund	Ratio (%)	Share and Debentures	Total Working Fund
2060/61	0.18	17.11	9587.57	0.26	8.94	3453.8	0.00	0.00	5522.26
2061/62	0.12	19.38	15540.00	0.14	9.29	6458.27	0.004	0.35	7486.24
2062/63	0.12	19.08	15959.28	0.004	0.35	9093.96	0.003	0.35	9068.12
2063/64	0.08	19.08	21432.57	0.003	0.35	10884.49	0.002	0.35	12010.46
2064/65	0.36	99.55	27698.57	0.04	5.35	12739.72	0.12	18.22	15200.77
Mean	0.17			0.08			0.025		
S.D.	0.1			0.01			0.01		
C.V.	58.82			12.5			38.46		

## Return on Loan and Advances Ratio

### Annexure 11

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Net Profit	Loan and Advance	Ratio (%)	Net Profit	Loan and Advance	Ratio (%)	Net Profit	Loan and Advance
2060/61	2.46	143.57	5834.12	1.87	46.68	2493.10	1.33	48.68	3649.00
2061/62	2.20	168.21	7618.67	1.68	84.87	5061.43	1.51	84.20	5584.64
2062/63	2.42	237.29	9801.32	2.21	134.00	6068.43	1.50	103.67	6891.86
2063/64	2.17	296.41	13664.08	1.06	75.98	7129.89	1.91	170.26	8929.01
2064/65	2.45	450.12	18339.08	1.47	127.82	8704.98	1.59	180.37	11338.73
Mean	2.34			1.66			1.57		
S.D.	0.14			0.37			0.17		
C.V.	6.04			22.54			11.03		

## Return on Total Working Fund Ratio

### Annexure 12

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Net Profit	Total Working Fund	Ratio (%)	Net Profit	Total Working Fund	Ratio (%)	Net Profit	Total Working Fund
2060/61	1.49	143.57	9587.57	1.35	46.68	3453.8	0.88	48.68	5522.26
2061/62	1.08	168.21	15540.00	1.31	84.87	6458.27	1.12	84.20	7486.24
2062/63	1.48	237.29	15959.28	1.47	134.00	9093.96	1.14	103.67	9068.12
2063/64	1.38	296.41	21432.57	0.69	75.98	10884.49	1.41	170.26	12010.46
2064/65	1.62	450.12	27698.57	1.01	127.82	12739.721	1.18	180.37	15200.77
Mean	1.41			1.17			1.15		
S.D.	0.84			0.26			0.14		
C.V.	60.24			22.61			12.17		

## Return on Equity Ratio

### Annexure 13

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Net Profit	Total Equity Capital	Ratio (%)	Net Profit	Total Equity Capital	Ratio (%)	Net Profit	Total Equity Capital
2060/61	26.57	143.57	540.32	8.42	46.68	554.22	8.54	48.68	570.00
2061/62	21.85	168.21	769.6	13.31	84.87	637.72	13.12	84.20	641.75
2062/63	24.64	237.29	962.81	14.39	134.00	931.07	12.00	103.67	863.87
2063/64	24.66	296.41	1201.52	7.59	75.98	1000.28	16.60	170.26	1025.63
2064/65	22.22	450.12	2025.04	10.38	127.82	1230.96	13.11	180.37	1376.02
Mean	23.99			10.82			12.67		
S.D.	1.72			2.65			2.59		
C.V.	7.15			24.48			20.46		

## Total Interest Earned to Total Outside Asset Ratio

### Annexure 14

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Total Interest Earned	Total Outside Assets	Ratio (%)	Total Interest Earned	Total Outside Assets	Ratio (%)	Total Interest Earned	Total Outside Assets
2060/61	7.92	657.25	8300.55	8.39	215.20	2564.3	7.29	310.21	4253.6
2061/62	7.40	719.30	9718.95	7.36	381.93	5188.73	7.45	499.92	6704.63
2062/63	6.74	903.41	13349.92	8.08	563.36	6972383	7.56	605.53	8006.17
2063/64	6.23	1144.41	18368.71	8.59	694.48	8081.09	7.73	791.28	10226.87
2064/65	6.61	1547.91	23398.55	8.41	800.81	9532.33	7.52	962.76	12807.82
Mean	6.98			8.16			7.51		
S.D.	0.65			0.51			0.14		
C.V.	9.28			6.25			1.88		

## Total Interest Earned to Total Working Fund Ratio

### Annexure 15

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Total Interest Earned	Total Working Fund	Ratio (%)	Total Interest Earned	Total Working Fund	Ratio (%)	Total Interest Earned	Total Working Fund
2060/61	6.85	657.25	9587.57	6.23	215.20	3453.8	5.62	310.21	5522.26
2061/62	4.63	719.30	15540.00	5.91	381.93	6458.27	6.67	499.92	7486.24
2062/63	5.66	903.41	15959.28	6.19	563.36	9093.96	6.68	605.53	9068.12
2063/64	5.34	1144.41	21432.57	6.38	694.48	10884.49	6.59	791.28	12010.46
2064/65	5.58	1547.91	27698.57	6.28	800.81	12739.72	6.33	962.76	15200.77
Mean	5.61			6.19			6.38		
S.D.	0.73			0.36			0.37		
C.V.	13.09			5.82			5.86		

## Total Interest Earned to Total Operating Ratio

### Annexure 16

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Total Interest Earned	Total Operating Income	Ratio (%)	Total Interest Earned	Total Operating Income	Ratio (%)	Total Interest Earned	Total Operating Income
2060/61	83.92	657.25	783.19	88.32	215.20	243.67	90.48	310.21	342.82
2061/62	84.03	719.30	855.99	89.26	381.93	427.89	92.47	499.92	540.6
2062/63	84.94	903.41	1063.55	87.26	563.36	645.61	90.62	605.53	667.19
2063/64	84.24	1144.41	1358.5	86.07	694.48	806.86	91.20	791.80	867.62
2064/65	83.80	1547.91	1847.04	87.78	800.81	912.26	90.84	962.76	1059.86
Mean	84.18			87.74			91.12		
S.D.	1.08			0.88			0.93		
C.V.	1.28			1.01			1.03		

## Credit Risk Ratio

### Annexure 17

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Loan and Advance	Total Asset	Ratio (%)	Loan and Advance	Total Asset	Ratio (%)	Loan and Advance	Total Asset
2060/61	60.85	5834.12	9587.57	72.18	2493.10	3453.8	66.08	3649.00	5522.26
2061/62	49.03	7618.67	15540.00	78.37	5061.43	6458.27	74.59	5584.64	7486.24
2062/63	61.41	9801.31	15959.28	66.73	6068.43	9093.96	76.00	6891.86	9068.12
2063/64	63.75	13664.08	21432.578	65.51	7129.89	10884.49	74.34	8929.01	1210.46
2064/65	66.21	18339.08	27698.87	68.33	8704.98	12739.72	74.59	11338.73	15200.77
Mean	60.25			70.22			73.12		
S.D.	5.92			4.68			3.56		
C.V.	9.82			6.68			4.88		

## Liquidity Risk Ratio

### Annexure 18

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Cash and Bank Balance	Total Deposit	Ratio (%)	Cash and Bank Balance	Total Deposit	Ratio (%)	Cash and Bank Balance	Total Deposit
2060/61	7.83	631.81	8063.90	2.37	65.25	2754.6	1.42	68.47	4807.93
2061/62	10.39	1049.98	10097.69	10.47	584.78	5586.80	5.28	331.08	6268.95
2062/63	11.25	1552.96	13802.45	9.75	769.51	7893.30	4.46	346.35	7768.96
2063/64	13.15	2391.43	18186.25	12.36	1171.63	9475.45	5.45	575.59	10557.42
2064/65	11.89	2852.43	23976.29	14.32	1589.72	11101.18	7.31	933.84	12774.28
Mean	10.90			9.85			4.78		
S.D.	1.79			4.07			1.93		
C.V.	16.43			41.37			40.45		

## Capital Risk Ratio

### Annexure 19

Fiscal Year	EBL			MBL			KBL		
	Ratio (%)	Capital	Risk Weighted Asset	Ratio (%)	Capital	Risk Weighted Asset	Ratio (%)	Capital	Risk Weighted Asset
2060/61	9.26	540.32	5834.12	22.23	554.22	2493.10	15.62	570.00	3649.00
2061/62	10.10	769.61	7618.67	12.59	637.72	5061.43	11.49	641.75	5584.64
2062/63	9.82	962.81	9801.31	15.34	931.07	6068.43	12.53	863.87	6891.86
2063/64	8.79	1201.52	13664.08	14.03	1000.28	7129.89	11.48	1025.63	8929.01
2064/65	11.04	2025.04	18339.08	14.14	1230.96	8704.98	12.13	1376.02	11338.73
Mean	9.80			15.367			12.65		
S.D.	0.79			3.37			1.54		
C.V.	8.06			21.55			12.14		

### Schedule 1

#### Calculation of mean, standard deviation and coefficient of variation

Fiscal Year	Ratio (X1)	X1 <sup>2</sup>
2060/61	0.94	0.8836
2061/62	1.04	1.0816
2062/63	1.07	1.1449
2063/64	1.06	1.1236
2064/65	1.05	1.1025
Total	5.16	5.3362
Mean	1.032	

$$\begin{aligned}
 \mathbf{1. \text{ Mean}} &= \frac{\sum x_1}{N} \\
 &= \frac{5.16}{5} \\
 &= 1.032
 \end{aligned}$$

$$\begin{aligned}
\text{2. Standard Deviation} &= \sqrt{\frac{\sum x_1^2}{N} - Z \frac{\sum X_1}{N}} \\
&= \sqrt{\frac{5.3362}{5} - Z(1.032)^2} \\
&= \sqrt{0.00222} \\
&= 0.047
\end{aligned}$$

$$\begin{aligned}
\text{3. Coefficient of variation} &= \frac{\text{S.D.}}{\text{Mean}} | 100 \\
&= \frac{0.047}{1.032} | 100 \\
&= 4.55\%
\end{aligned}$$

## Schedule 2

### Calculation of Growth Ratio

Let,

$D_n$  = Data in the  $n^{\text{th}}$  year

$D_o$  = Data in the initial year

$g$  = Growth rate

$n$  = Number of years of study = 5

Then we have,

$$D_n = D_o (1+g)^{n-1}$$

Growth Ratio of Total Deposit of EBL

Here,

$D_n$  = Total Deposit in 2064/65 = 23976.29

$D_o$  = Total Deposit in 2060/61 = 8063.90

(Amount in million)

Then we have,

$$D_n = D_o(1+g)^{n-1}$$

$$23976.29 = 8063.90(1+g)^{5-1}$$

$$\begin{aligned}
(1+g)^4 &= 2.9733 \\
1+g &= \sqrt[4]{2.9733} \\
&= 1.3131 - 1 \\
&= 31.31\%
\end{aligned}$$

Similarly, Growth Ratio of Total Deposit of MBL and KBL are calculated.

### **Growth Ratio of Loans and Advances of EBL**

Here,

$$D_n = \text{Loan and Advance in 2060/65} = 18339.08$$

$$D_o = \text{Loan and Advance in 2060/61} = 5834.12$$

(Amount in million)

Then we have,

$$\begin{aligned}
D_n &= D_o(1+g)^{n-1} \\
18339.08 &= 5834.12 (1+g)^{5-1} \\
(1+g)^4 &= 3.1434 \\
1+g &= \sqrt[4]{3.1434} \\
g &= 1.3315 - 1 \\
&= 0.3315 \\
&= 33.15\%
\end{aligned}$$

Similarly, Growth Ratio of Loans and Advances of MBL and KBL are calculated.

### **Growth Ratio of Total Investment of EBL**

Hence,

$$D_n = \text{Total Investment in 2064/65} = 5059.56$$

$$D_o = \text{Total Investment in 2060/61} = 2535.66$$

(Amount in million)

Then we have,

$$\begin{aligned}
D_n &= D_o(1+g)^{n-1} \\
5059.56 &= 2535.66 (1+g)^{5-1} \\
(1+g)^4 &= 1.9953 \\
1+g &= \sqrt[4]{1.9953} \\
g &= 1.18850-1 \\
&= 0.1885 \\
&= 18.85\%
\end{aligned}$$

Similarly, Growth Ratio of Total Investment of MBL and KBL are calculated.

### **Growth Ratio of Net Profit of EBL**

Here,

$$D_n = \text{Net Profit in 2064/65} = 450.12$$

$$D_o = \text{Net Profit in 2060/61} = 143.57$$

(Amount in million)

Then we have,

$$\begin{aligned}
D_n &= D_o (1+g)^{n-1} \\
450.12 &= 143.57 (1+g)^{5-1} \\
(1+g)^4 &= 3.1352 \\
1+g &= \sqrt[4]{3.1352} \\
g &= 1.33065-1 \\
&= 0.3306 \\
&= 33.06\%
\end{aligned}$$

Similarly, Growth Ratio of Net Profit of MBL and KBL are calculated.

## Trend Analysis

### Schedule – 3

#### Trend Analysis of Loan and Advance to Total Deposit of EBL

Fiscal Year	Ratio (y)	x = t-2062/63	x <sup>2</sup>	xy	yc = a + bx
2060/61	72.35	(2.00)	4.00	(144.7)	72.496
2061/62	75.45	(1.00)	1.00	(75.45)	73.29
2062/63	71.01	0.00	0.00	0.00	74.084
2063/64	75.13	1.00	1.00	75.13	74.878
2064/65	76.48	2.00	4.00	152.96	75.672
<b>Total</b>	<b>370.42</b>		<b>10.00</b>	<b>7.94</b>	

$$a = \frac{y}{N} = 74.084$$

$$b = \frac{xy}{x^2} = 0.794$$

#### Projected Trend Values for the Next Five Years

Fiscal Year	x = t-2062/63	yc = a+ bx
2065/66	3.00	76.466
2066/67	4.00	77.26
2067/68	5.00	78.054
2068/69	6.00	78.848
2069/70	7.00	79.642

## Schedule – 4

### Trend Analysis of Total Investment to Total Deposit

<b>EBL</b>					
Fiscal Year	Ratio (y)	$x = t-2062/63$	$x^2$	xy	$yc = a + bx$
2060/61	31.44	(2.00)	4.00	(62.88)	29.162
2061/62	21.08	(1.00)	1.00	(21.08)	27.727
2062/63	30.43	0.00	0.00	0.00	26.292
2063/64	27.41	1.00	1.00	27.41	24.857
2064/65	21.10	2.00	4.00	42.2	23.422
<b>Total</b>	<b>131.46</b>		<b>10.00</b>	<b>(14.35)</b>	

$$a = \frac{y}{N} = 26.292$$

$$b = \frac{xy}{x^2} = -1.435$$

### Projected Trend Values for the Next Five Years of EBL

Fiscal Year	$x = t-2062/63$	$yc = a + bx$
2065/66	3.00	21.987
2066/67	4.00	20.552
2067/68	5.00	19.117
2068/69	6.00	17.682
2069/70	7.00	16.247

## Schedule – 5

### Trend Analysis of Loan and Advance to Total Deposit

MBL					
Fiscal Year	Ratio (y)	x = t-2062/63	x <sup>2</sup>	xy	yc = a + bx
2060/61	90.50	(2.00)	4.00	(181.00)	74.414
2061/62	90.59	(1.00)	1.00	(90.59)	78.367
2062/63	76.88	0.00	0.00	0.00	82.32
2063/64	75.24	1.00	1.00	75.24	86.273
2064/65	78.41	2.00	4.00	156.82	90.226
	411.62		10.00	39.53	

$$a = \frac{y}{N} = 82.32$$

$$b = \frac{xy}{x^2} = 3.953$$

### Projected Trend Values for the Next Five Years of MBL

Fiscal Year	x = t-2062/63	yc = a + bx
2065/66	3.00	94.179
2066/67	4.00	98.132
2067/68	5.00	102.085
2068/69	6.00	106.038
2069/70	7.00	109.991

## Schedule – 6

### Trend Analysis of Total Investment to Total Deposit

<b>MBL</b>					
Fiscal Year	Ratio (y)	x = t-2062/63	x <sup>2</sup>	xy	yc = a + bx
2060/61	8.33	(2.00)	4.00	(16.66)	7.186
2061/62	3.47	(1.00)	1.00	(3.47)	7.677
2062/63	11.50	0.00	0.00	0.00	8.168
2063/64	10.04	1.00	1.00	10.04	8.659
2064/65	7.50	2.00	4.00	15.00	9.15
<b>Total</b>	<b>40.84</b>		<b>10.00</b>	<b>4.91</b>	

$$a = \frac{y}{N} = 8.168$$

$$b = \frac{xy}{x^2} = 0.491$$

### Projected Trend Values for the Next Five Year of MBL

Fiscal Year	x = t-2062/63	yc = a + bx
2065/66	3.00	9.641
2066/67	4.00	10.1312
2067/68	5.00	10.623
2068/69	6.00	11.114
2069/70	7.00	11.605

**Schedule – 7**

**Trend Analysis of Loan and Advance to Total Deposit**

<b>KBL</b>					
Fiscal Year	Ratio (y)	x = t-2062/63	x <sup>2</sup>	xy	yc = a + bx
2060/61	75.89	(2.00)	4.00	(151.78)	81.162
2061/62	89.08	(1.00)	1.00	(89.08)	83.279
2062/63	88.71	0.00	0.00	0.00	85.396
2063/64	84.57	1.00	1.00	84.57	87.513
2064/65	88.73	2.00	4.00	177.46	89.63
	426.98		10.00	21.17	

$$a = \frac{y}{N} = 85.396$$

$$b = \frac{xy}{x^2} = 2.117$$

**Projected Trend Values for the Next Five Years of KBL**

Fiscal Year	x = t-2062/63	yc = a + bx
2065/66	3.00	91.747
2066/67	4.00	93.864
2067/68	5.00	95.981
2068/69	6.00	98.098
2069/70	7.00	100.215

## Schedule – 8

### Trend Analysis of Total Investment to Total Deposit

<b>KBL</b>					
Fiscal Year	Ratio (y)	x = t-2062/63	x <sup>2</sup>	xy	yc = a + bx
2060/61	18.75	(2.00)	4.00	(37.5)	21.634
2061/62	22.21	(1.00)	1.00	(22.21)	19.466
2062/63	20.37	0.00	0.00	0.00	17.2998
2063/64	12.29	1.00	1.00	12.29	15.13
2064/65	12.87	2.00	4.00	25.74	12.962
<b>Total</b>	<b>86.49</b>		<b>10.00</b>	<b>(21.68)</b>	

$$a = \frac{y}{N} = 17.298$$

$$b = \frac{xy}{x^2} = -2.168$$

### Projected Trend Values for the Next Five Years of KBL

Fiscal Year	x = t-2062/63	yc = a+ bx
2065/66	3.00	10.794
2066/67	4.00	8.626
2067/68	5.00	6.458
2068/69	6.00	4.29
2069/70	7.00	2.122

## Coefficient of Correlation Analysis

### Schedule – 9

#### Coefficient of Correlation Between Deposit and Loan & Advances of EBL

Fiscal year	Deposit (x)	Loan and Advance(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	8063.90	5834.12	(6761.42)	45716800.42	(5217.363)	27220532.33	35276559.41
2061/62	10097.69	7618.67	(4727.63)	22350485.42	(3432.78)	11783978.53	16228913.71
2062/63	13802.45	9801.31	(1022.87)	1046263.04	(1250.14)	1562850.02	1278730.70
2063/64	18186.25	13664.08	3360.93	11295850.46	2612.63	68258365.52	8780866.55
2064/65	23976.29	18339.08	9150.97	83740251.94	7287.63	53109551.02	66688883.5
Total	74126.58	55257.26	0.00	164149651.3	0.00	100502747.4	128253953.9
Mean	14825.32	11051.45					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$\text{Coefficient of correlation (r)} = \frac{5 \sum xy - \sum x \sum y}{\sqrt{5 \sum x^2 - (\sum x)^2} \sqrt{5 \sum y^2 - (\sum y)^2}}$$

$$= \frac{641269769.5}{\sqrt{820748256.5} \sqrt{502513737}}$$

$$= 0.99$$

$$r^2 = 0.997065492$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \sum r^2 = 0.6745$$

$$= 0.000885181$$

$$6 \text{ P.E.r} = 0.00531108$$

## Schedule – 10

### Coefficient of Correlation Between Deposit and Total Investment of EBL

Fiscal year	Deposit (x)	Total Investment(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	8063.90	2535.66	(6761.42)	45716800.42	(1246.13)	1552839.97	8425608.30
2061/62	10097.69	2128.91	(4727.63)	22350485.42	(1652.88)	2732012.29	7841205.07
2062/63	13802.45	4200.51	(1022.87)	1046263.04	418.72	175326.44	428296.13
2063/64	18186.25	4984.31	3360.93	11295850.46	1202.52	1446054.35	4041585.54
2064/65	23976.29	5059.56	9150.97	83740251.94	1277.77	1632696.17	11692834.94
<b>Total</b>	<b>741236.58</b>	<b>18908.95</b>	<b>0.00</b>	<b>164149651.3</b>	<b>0.00</b>	<b>7538929.22</b>	<b>31545937.72</b>
<b>Mean</b>	<b>14825.35</b>	<b>3781.79</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$\text{Coefficient of correlation (r)} = \frac{5 \times 31545937.72}{\sqrt{5 \times 164149651.3} \sqrt{5 \times 7538929.22}}$$

$$= 0.89$$

$$r^2 = 0.804152307$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \times 0.6745$$

$$= 0.059076589$$

$$6 \text{ P.E.r} = 0.354459534$$

## Schedule – 11

### Coefficient of Correlation Between Outside Asset and Net Profit of EBL

Fiscal year	Outside Asset (x)	Net Profit(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	8300.55	143.57	(6326.79)	40028271.7	(115.55)	13351.80	731060.58
2061/62	9718.95	168.21	(4908.39)	24092292.39	(90.91)	8264.63	446221.73
2062/63	13349.92	237.29	(1277.42)	1631801.85	(21.83)	476.55	27886.08
2063/64	18368.71	296.41	3741.37	13997849.48	37.29	1390.54	139515.68
2064/65	23398.55	450.12	8771.21	76934124.86	191.00	36481.00	1675301.11
<b>Total</b>	<b>73136.68</b>	<b>1295.6</b>	<b>0.00</b>	<b>156684340.3</b>	<b>0.00</b>	<b>59964.52</b>	<b>3019985.18</b>
<b>Mean</b>	<b>14627.34</b>	<b>259.12</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$\text{Coefficient of correlation (r)} = \frac{5 \times 3019985.18 - 73136.68 \times 1295.6}{\sqrt{5 \times 156684340.3 - (73136.68)^2} \sqrt{5 \times 59964.52 - (1295.6)^2}}$$

$$= \frac{15099925.9}{\sqrt{783421701.3} \sqrt{299822.6}}$$

$$r = 0.988$$

$$r^2 = 0.970712553$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \times 0.6745$$

$$= 0.008834429$$

$$6 \text{ P.E.r} = 0.053006572$$

## Schedule – 12

### Coefficient of Correlation Between Deposit and Loan & Advance of MBL

Fiscal year	Deposit (x)	Loan and Advance(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	2754.6	2493.10	(4607.66)	21230530.68	(3398.46)	11549530.37	15658948.2
2061/62	5586.80	5061.43	(1775.46)	3152258.21	(830.13)	689115.82	1473862.61
2062/63	7893.30	6068.43	531.04	282003.48	176.87	31282.99	93925.04
2063/64	9475.45	7129.89	2113.19	4465571.97	1238.33	1533461.18	2616826.57
2064/65	11101.18	8704.98	3738.92	13979522.77	2813.42	7915332.09	10519152.31
<b>Total</b>	<b>36811.33</b>	<b>39457.83</b>	<b>0.00</b>	<b>43109887.11</b>	<b>0.00</b>	<b>21718722.45</b>	<b>30362714.73</b>
<b>Mean</b>	<b>7362.26</b>	<b>5891.56</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - \frac{(\sum x)^2}{N}} \sqrt{N \sum y^2 - \frac{(\sum y)^2}{N}}}$$

$$= \frac{5 \times 30362714.73 - 36811.33 \times 39457.83}{\sqrt{5 \times 43109887.11 - \frac{(36811.33)^2}{5}} \sqrt{5 \times 21718722.45 - \frac{(39457.83)^2}{5}}}$$

$$r = 0.99$$

$$r^2 = 0.984624512$$

$$\text{Probable error (P.E.r)} = \frac{1 - r^2}{\sqrt{N}} = 0.6745$$

$$= 0.004637948$$

$$6 \text{ P.E.r} = 0.27827687$$

### Schedule – 13

#### Coefficient of Correlation Between Deposit and Total Investment of MBL

Fiscal year	Deposit (x)	Total Invest.(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	2754.6	229.59	(4607.66)	21230530.68	(393.58)	154905.22	1813482.82
2061/62	5586.80	194.25	(1775.46)	3152258.21	(428.92)	183972.36	761530.30
2062/63	7893.30	907.75	531.01	282003.48	284.58	80985.77	151123.36
2063/64	9475.45	951.55	2113.19	4465571.97	328.38	107833.42	693929.33
2064/65	11101.18	832.7	3738.92	13979522.77	209.53	43902.82	783415.91
<b>Total</b>	<b>36811.33</b>	<b>3115.84</b>	<b>0.00</b>	<b>43109887.11</b>	<b>0.00</b>	<b>571599.59</b>	<b>4203481.72</b>
<b>Mean</b>	<b>7362.26</b>	<b>623.17</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 4203481.72 - 36811.33 \times 3115.84}{\sqrt{5 \times 43109887.11 - (36811.33)^2} \sqrt{5 \times 571599.59 - (3115.84)^2}}$$

$$r = 0.85$$

$$r^2 = 0.717051555$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \times r = \frac{1}{\sqrt{5}} \times 0.85 = 0.3745$$

$$= 0.085350145$$

$$6 \text{ P.E.r} = 6 \times 0.085350145 = 0.5121008701$$

**Schedule – 14**

**Coefficient of Correlation Between Outside Asset and Net Profit of  
MBL**

<b>Fiscal year</b>	<b>Outside Asset (x)</b>	<b>Net Profit (y)</b>	<b><math>x = x - \bar{x}</math></b>	<b><math>x^2</math></b>	<b><math>y = y - \bar{y}</math></b>	<b><math>y^2</math></b>	<b>xy</b>
2060/61	2564.3	46.68	(3903.55)	15237702.6	(47.19)	2226.89	184208.52
2061/62	5188.73	84.87	(1279.12)	1636147.97	(9.00)	81.00	11512.08
2062/63	6972.83	134.00	504.98	255004.80	40.13	1610.42	20264.85
2063/64	8081.09	75.98	1613.24	2602543.29	(17.89)	320.05	(28860.86)
2064/65	9532.33	127.82	3064.48	9391037.67	33.95	1152.60	3098.43
<b>Total</b>	<b>32339.28</b>	<b>469.35</b>	<b>0.00</b>	<b>29122436.33</b>	<b>0.00</b>	<b>5390.96</b>	<b>190223.02</b>
<b>Mean</b>	<b>6467.85</b>	<b>93.87</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$= \frac{5 \times 190223.02 - 32339.28 \times 469.35}{\sqrt{5 \times 29122436.33 - (32339.28)^2} \sqrt{5 \times 5390.96 - (469.35)^2}}$$

$$r = 0.480080685$$

$$r^2 = 0.23047746$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \times 0.6745$$

$$= 0.232123065$$

$$6 \text{ P.E.r} = 1.392738392$$

## Schedule – 15

### Coefficient of Correlation Between Deposit and Loan & Advance of KBL

Fiscal year	Deposit (x)	Loan and Advance(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	4807.93	3649.00	(3628.35)	13164923.72	(3629.65)	13174359.12	13169640.58
2061/62	6268.95	5584.64	(2167.33)	469731.93	(1694.01)	2869669.88	3971478.69
2062/63	7768.96	6891.86	(667.32)	445315.98	(386.79)	149606.50	258112.70
2063/64	10557.42	8929.01	2121.14	4499234.98	1650.36	2723688.13	3500644.61
2064/65	12778.16	11338.73	4341.88	1885121.93	4060.08	16484249.61	17628380.15
<b>Total</b>	<b>42181.42</b>	<b>36393.24</b>	<b>0.00</b>	<b>37431128.46</b>	<b>0.00</b>	<b>35401573.24</b>	<b>38228256.73</b>
<b>Mean</b>	<b>8436.28</b>	<b>7278.65</b>					

$$\begin{aligned}
 \text{Coefficient of Correlation (r)} &= \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}} \\
 &= \frac{5 \times 38228256.73 - 42181.42 \times 36393.24}{\sqrt{5 \times 37431128.46 - (42181.42)^2} \sqrt{5 \times 35401573.24 - (36393.24)^2}} \\
 &= 1.05 \\
 r^2 &= 1.102843226 \\
 \text{Probable error (P.E.r)} &= \frac{1}{\sqrt{N}} \times 0.6745 \\
 &= (0.031022204) \\
 6 \text{ P.E.r} &= (0.186133221)
 \end{aligned}$$

## Schedule – 16

### Coefficient of Correlation Between Deposit and Total Investment of KBL

Fiscal year	Deposit (x)	Total Invest.(y)	$x = x - \bar{x}$	$x^2$	$y = y - \bar{y}$	$y^2$	xy
2060/61	4807.93	901.6	(3628.35)	13164923.72	(462.5)	213906.25	1678111.87
2061/62	6268.95	1392.56	(2167.33)	469731.93	28.46	809.97	(61682.21)
2062/63	7768.96	1583.23	(667.32)	445315.98	219.13	48017.95	(146229.830)
2063/64	10557.42	1298.21	2121.14	4499234.9	(65.89)	4341.49	(139761.910)
2064/65	12778.16	1644.91	4341.88	18851921.93	280.81	78854.25	1219243.32
<b>Total</b>	<b>42181.42</b>	<b>6820.51</b>	<b>0.00</b>	<b>37431128.46</b>	<b>0.00</b>	<b>345929.91</b>	<b>2549681.24</b>
<b>Mean</b>	<b>8436.28</b>	<b>1364.10</b>					

$$\begin{aligned} \text{Coefficient of Correlation (r)} &= \frac{N \sum xy}{\sqrt{N \sum x^2} \sqrt{N \sum y^2}} \\ &= \frac{5 \mid 2549681.24}{\sqrt{5 \mid 37431128.46} \mid \sqrt{5 \mid 345929.91}} \end{aligned}$$

$$\begin{aligned} r &= 0.71 \\ r^2 &= 0.5020557339 \end{aligned}$$

$$\begin{aligned} \text{Probable error (P.E.r)} &= \frac{1}{\sqrt{N}} \mid 0.6745 \\ &= 0.1502026821 \end{aligned}$$

$$6 \text{ P.E.r} = 0.9012160923$$

**Schedule – 17**

**Coefficient of correlation between Outside Asset and Net Profit of  
KBL**

<b>Fiscal year</b>	<b>Outside Asset (x)</b>	<b>Net Profit (y)</b>	<b><math>x = x - \bar{x}</math></b>	<b><math>x^2</math></b>	<b><math>y = y - \bar{y}</math></b>	<b><math>y^2</math></b>	<b>xy</b>
2060/61	4250.60	48.68	(4148.62)	17211047.9	(68.76)	4727.74	285259.11
2061/62	6704.63	84.20	(1694.59)	2871635.27	(33.24)	1104.89	56328.17
2062/63	8006.17	103.67	(393.05)	154488.30	(13.77)	189.61	5412.29
2063/64	10226.87	170.26	1827.65	3340304.52	52.82	2789.95	96536.47
2064/65	12807.82	180.37	4408.60	19435753.96	63.19	3992.97	278579.43
<b>Total</b>	<b>41996.09</b>	<b>587.18</b>	<b>0.00</b>	<b>43013229.95</b>	<b>0.00</b>	<b>12805.36</b>	<b>72211.55</b>
<b>Mean</b>	<b>8399.22</b>	<b>117.44</b>					

$$\text{Coefficient of Correlation (r)} = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$r = 0.097$$

$$r^2 = 0.00946679$$

$$\text{Probable error (P.E.r)} = \frac{1}{\sqrt{N}} \sum Z^2 | 0.6745$$

$$= 0.129878995$$

$$6 \text{ P.E.r} = 0.79273973$$