

Evaluation of the Financial Performance of Dashen Bank *using CAMEL Approach*



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Statement of Declaration

I, Askalemariam Adugna, have carried out independently a research work on the topic entitled “Evaluation of the Financial Performance of Dashen Bank in Ethiopia using CAMEL Approach” in partial fulfilment of the requirement of Masters of Business Administration with the guidance and support of Maru Shete (PhD and Associate Prof.). This study is my own work that has not been submitted for any degree or diploma program in this or any other institutions.

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This is to certify that the thesis prepared by Askalemariam Adugna, entitled “ Evaluation of the Financial Performance of Dashen Bank in Ethiopia using CAMEL Approach” and submitted impartial fulfilment of the requirements of Masters of Business Administration complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

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List of Acronyms and Abbreviations

Adv/Ast: Advances to Assets

AIA: American International Assurance

BIS: Bank for International Settlement

BPE: Business per Employee

CAR: Capital Adequacy Ratio

CBE: Commercial bank of Ethiopia

DB: Dashen Bank S.C

D/E: Debt-Equity Ratio

EPRDF: Ethiopian Peoples' Revolutionary Democratic Front

EPE: Earning Per Employee

FDIC: Federal Deposit Insurance Corporation

G.NPA/N.Adv: Gross Non-Performing Assets to Net Advance

G-Sec/Inv: Govt. Securities to Total investment

G-Sec/TA: Govt. Securities to Total Assets

II/TI: Interest Income to Total Income.

LA/TA: Liquid Assets to Total Assets

LA/DD: Liquid Assets to Demand Deposits

LA/TD: Liquid Assets to Total Deposits

MFI: Micro-Finance Institution

NBE: National Bank of Ethiopia

NII/TI: Non-Interest Income to Total Income

N.NPA/N.Adv: Net Non-Performing Assets to Net Advances

N.NPA/T.Ast: Net Non-Performing Assets to Total Assets

NP/AAst: Net Profit to Average Assets

OP/WF: Operating Profits to Average Working Funds.

ROA: Return on Asset

ROE: Return on Equity
 S.D: Standard Deviation
 Spread: Spread to Total Assets
 TInv/TAst: Total Investments to Total Assets
 TAdv/TDe: Total Advances to Total Deposits

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Abstract

Today it becomes extremely essential for Commercial banks to evaluate their performance because their survival in the dynamic economic environment will be dependent upon their good performance. There is a little study in the area of bank performance evaluation in Ethiopia particularly using Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity (CAMEL) model. All the researchers used CAMEL Model as ratio analysis by comparing one bank to another bank to find out the performance of the banks. And among all these researchers, no one except Assefa has used all components of CAMEL model to evaluate the financial performance of commercial banks. On the other hand the time series data taken by Assefa and Getahun for comparison is limited for five years and four years respectively. Thus, this study is to conduct with the intention of filling these gaps by extending the issue to the specific context of Dashen Bank through a descriptive way of research design. The study used both primary and secondary data. Secondary data were obtained for 10 years (2006 – 2015) from the records of Dashen Bank, and this was used to calculate different types of ratios related to CAMEL model. In addition to this, primary data were collected through unstructured interview with two Bank's officials who are working in the planning and development section, and investment and accounts section regarding the outcomes of the computed ratios in a bid to triangulate the findings. This study used a descriptive financial ratio analysis to measure, describe and analyse the performance of Dashen Bank during the period 2006-2015. Statistical tools like average and standard deviation were also calculated. It is highlighted that the position of Dashen Bank is sound and satisfactory as far as their capital adequacy, asset quality, management efficiency earning quality and liquidity is concerned. According to the results, Dashen Bank is committed above a minimum (12%) capital adequacy ratio, recommended by experts in the banking sector. Therefore, Dashen Bank should maintain or increase their capital adequacy ratio (CAR) to enhance the safety of its banking system, and the safety of its depositors. The debt to equity ratio of Dashen Bank was not good to its obligations; this is very risky for the overall sustainability of the bank. Therefore, the bank's management has to work to maximize the amount of owners' equity, and has to search for other sources so that the performance of the bank can be improved. The researcher suggested that in the further research one may need to consider this examination as a source of perspective to extend the scope and enhance the findings of the exploration.

Keywords: *Financial Performance, CAMEL model, Capital Adequacy, Asset quality, Management efficiency, Earning quality and Liquidity*

CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation Davood, Mohammad, Hamed, and Arshad (2014).

The banking sector acts as a backbone of the economy. The Financial resources of the country are allocated through banks. Moreover, the banking sector acts as a heart through which money is injected into the economy. Therefore, evaluation of financial performance of the banking sector is an effective measure and indicator to check the soundness of economic activities of an economy. Thus banks should be given more attention than any other type of economic unit in an economy and it needs continuous performance evaluation.

Different scholars have conducted researches on performance evaluation of commercial banks and various techniques of evaluations have been developed so far. Financial ratio analysis, CAMEL and the later CAMELS, Data Envelopment Analysis (DEA model), Analytical Hierarchy Process (AHP) are some of the methods used by scholars. For this study CAMEL model is applied.

The CAMEL model reflects excellently the conditions and performances of banks over the years as well as enriches the on-site and off-site examination to bring better assessments towards banks' conditions. Its purpose is to provide an accurate and consistent evaluation of a bank's financial condition and operations in the areas such as capital, asset quality, management, earning quality and liquidity. Muhammad (2009) claims that the strength of these factors would determine the overall strength of the bank. The quality of each component further underlines the inner strength and how far it can take care of itself against the market risks. The CAMEL framework also uses the financial ratios and analysis, but evaluates in categories such as capital adequacy, asset quality, management efficiency, earning quality and liquidity. It was developed by US Federal regulators to help structure the bank examination process in the early of 1970s. In 1979, the Uniform Financial Institutions Rating System was adopted International Journal of Economics, Management and Accounting 23,

no.1 (2015) to provide federal bank regulatory agencies with a framework for rating financial condition and performance of individual banks. Since then, using CAMEL indicators in evaluating bank financial health has become widespread among regulators. According to Dang (2011), the CAMEL rating system is a useful tool for examining the safety and soundness of banks, and for helping to mitigate potential risk of bank failure.

1.2 Statement of the Problem

Today it becomes extremely essential for Commercial banks to evaluate their performance because their survival in the dynamic economic environment will be dependent upon their good performance.

Furthermore, Since Ethiopian banking sector has shown a rapid progress in terms of number of commercial banks, total assets and capital, widening their branch network, increasing their outreach to remote areas and continuously reporting profits of different magnitude, the evaluation of their financial performance is very necessary.

In light of the above facts the aim of this study is to evaluate the financial performance of Dashen Bank (DB) based on the CAMEL framework. As per the researchers' knowledge, there is no study done in Dashen Bank related with financial performance evaluation. Therefore by taking the above theories in to consideration the researcher try to evaluate the financial performance of Dashen Bank through CAMALE model.

An effort has been made to evaluate the financial performance of Dashen Bank, and highlight the position of the bank under study is sound and satisfactory so far as their capital adequacy, asset quality, management efficiency, earning quality and liquidity is concerned, and to improve its banking business. Dashen Bank was randomly selected for this study, keeping in view its role and involvement in shaping the economic conditions of Ethiopia.

Dashen Bank was established as per the intent of the new policy and the Ethiopian investment code. It came into existence on September 20, 1995 according to the commercial code of Ethiopia, 1960, and the licensing and supervision of banking business proclamation No. 84/1994. It operates through its Head Office in Addis Ababa and 226 Area Banks (including Forex Bureaus), 953 Point of Sale (PoS) terminals and 220. Automatic Teller Machines (ATMs) located in and outside Addis Ababa.

Even if there is a little study in the area of bank performance evaluation in Ethiopia particularly using CAMEL model, Legas (2010) evaluated bank performance pre and post liberalization of

commercial bank of Ethiopia by adopting the CAMEL model, Getahun (2015) Analysing Financial Performance of Commercial Banks in Ethiopia through CAMEL Approach, Assefa (2013) Performance of Commercial Banks of Ethiopia and Global Financial Crisis and Alemu et al. (2015), An Assessment of Banking Performance Using Capital Adequacy in Ethiopia. All the above researchers used CAMEL Model as ratio analysis by comparing one bank to another bank to find out the performance of the banks. And among all these researchers, no one except Assefa has used all components of CAMEL model to evaluate the financial performance of commercial banks. On the other hand the time series data taken by Assefa and Getahun for comparison is limited for five years and four years respectively. Thus, this study is to conduct with the intention of filling these gaps by extending the issue to the specific context of Dashen Bank through a descriptive way of research design.

1.3 Research Questions

The study addressed the following specific research questions:

1. How is Dashen Bank utilizing its assets?
2. What is the Dashen Bank's financial position to meet its current obligation?
3. To what extent the profitability of Dashen Bank strong enough to exist in the competitive financial industry?
4. How does the financial trend of various elements of the financial statements of the Dashen Bank look like?
5. To what extent Dashen Bank face difficulties in financing its loan and future investment expansions?

1.4 General Objective

The overall object of the study is to evaluate the financial performance of Dashen Bank (DB) based on the CAMEL framework, which is used to evaluate the overall safety and soundness of a bank.

1.4.1 Specific Objectives of the Study

The specific objectives of the study are:

- ❖ To analyse the Capital Adequacy of Dashen Bank.
- ❖ To analyse the Assets Quality of Dashen Bank.

- ❖ To analyse the Management Efficiency of Dashen Bank.
- ❖ To analyse the Earning Quality of Dashen Bank.
- ❖ To analyse the Liquidity of Dashen Bank.

1.5 Scope of the Study

The scope of the study is limited to Dashen Bank. To evaluate the financial position of this bank, 10 years data (2006 – 2015) was used, and hence the time scope for this study is limited only to this period.

In addition, this study aims to evaluate financial performance by focusing on all five parameters of Camel Model i.e. Capital adequacy, Asset quality, Management Efficiency, Earnings quality and Liquidity. However there are different ratios that used to analyse these parameters.

1.6 Significance of the Study

Evaluation of the organization's overall performance and observing the financial condition is essential to owners, potential investors, depositors, managers and, of course, the regulators Al-Tamimi (2006). The study is conducted to analyze the performance of banks with respect to a Camel model. This research is focused on CAMEL Model as it emphasizes on different indicators that are specifically important for safety and soundness of the banking industry.

This research provides insight to shareholders and investors about the key factors that affect the bank performance. It enhances their knowledge beyond the typical information like financial statement and disclosure which were made by banks in their annual statements. On the basis of information investors will take a more valuable decision to invest in a certain Bank.

The findings of this research will contribute to the existing literature on bank performance as well as bridge the knowledge gap currently exists related to bank performance measures available. It will help the regulators in making appropriate rules and regulations, mitigate the potential risk of failures and take corrective actions. It will also helpful to formulate appropriate policies on how these can be improved upon. Moreover, it will be beneficial for management to formulate a proactive strategy for survival and long term growth of the organization. It will also helpful for the reader to know the specific details of the model which in turn lead to identifying the strengths and weaknesses of the banks, it will give a better understanding and knowledge about the performance of the banking

industry particularly in Ethiopia. Further the study outcomes may be used as a basis for future research.

1.7 Organization of the Study

The study is divided into five chapters in order to evaluate the financial performance of Dashen Bank (DB). The first part of the dissertation is discussing the background, problem statement, questions and objectives and the significance, limitations and organization of the thesis.

The second chapter reviews the most significant theoretical and empirical studies. The empirical studies part presents various related researches and their results.

The third part of the study is discussing the methods and procedures used in the study. The chapter comprise of the presentation of the utilized techniques for data collection and research methodology. Similarly, it also contains a discussion on the techniques used in data analysis as well as the tools used to acquire the said data.

The fourth chapter is a discussion of the results of the study. Data is presented and evaluated by CAMEL Model which is the recent innovation in the area of financial performance evaluation of banks. With the said data, the chapter seeks to address the specific objective noted in the first chapter.

The last chapter comprise of three sections: the summary of the major findings, conclusions of the study, and the recommendations. With the three portions, the chapter shall be able to address the problem stated in the initial chapters of the study. Reference and appendix also provided in the final part of this paper.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

This chapter is composed of two major parts: the theoretical framework and empirical studies. The theoretical framework part presents the significance of CAMEL rating framework in banking supervision, CAMEL Model, CAMEL rating system and Banking Sector in Ethiopia. The empirical studies part presents various related researches and their results.

2.1 Theoretical Framework

2.1.1 The significance of CAMEL rating framework in banking supervision

Providing a general framework in evaluating overall performance of banks is of great importance due to the increasing integration of global financial markets. In the financial crisis of 2008, CAMEL rating was being used by the American government to respond to the crisis to help decide which banks needed the special help and which not as part of its capitalization program authorized by the Emergency Economic Stabilization Act of 2008.

Barker and Holdsworth (1993) finding that the CAMEL system is useful, even after controlling for a wide range of publicly available information about the condition and performance of banks. This composite index further acts as a bank's failure predicting model. The rating is assigned based on both quantitative and qualitative information of the bank. If a bank's index is less than two, it is regarded as a high-quality bank, whereas institutions with a grade four or five are rated to be insolvent Curry, Elmer and Fissel, (2009.) The up-to-date examination ratings help identify if the banks require increased supervisory attention well before they actually fail. Although Gaytán and Johnson (2002) argue that the model is only parallel with the performance of the bank at the time of the examination, while variables in banks are highly volatile to market forces; the CAMEL model is still very much popular among regulators due to its effectiveness.

2.1.2 CAMEL Model

CAMEL is, basically, a ratio based model commonly used for the evaluation of performance and ranking. In the 1980s, the US supervisory authorities, through the use of the CAMEL rating system, were the first to introduce ratings for on-site examinations of banking institutions. The concept introduced a uniform system of rating a banking institution in the United States. It is based on examiner assessment of a banking institution under certain supervisory criteria, and is used by all three US supervisory agencies, i.e. the Federal Reserve System, Office of the Comptroller of the

Currency (OCC) and the Federal Deposit Insurance Corporation (FDIC). Under this system, each banking institution subject to on-site examination is evaluated on the basis of five (now six) critical dimensions relating to its operations and performance, which are referred to as the component factors. However, most of the developing countries are using CAMEL instead of CAMELS. Capital adequacy, Asset quality, Management efficiency, Earnings quality and Liquidity are seen to reflect the financial performance, financial condition, operating soundness and regulatory compliance of the banking institution.

2.1.3 CAMEL rating system

The Uniform Financial Institution Rating system, commonly referred to the acronym CAMEL rating, was adopted by the Federal Financial Institution Examination Council on November 13 1979, and then adopted by the National Credit Union Administration in October 1987. It has proven to be an effective internal supervisory tool for evaluating the soundness of a financial firm, on the basis of identifying those institutions requiring special attention or concern. (The United States. Uniform Financial Institutions Rating System 1997).

Barr et al. (2002 p.19) states that “CAMEL rating has become a concise and indispensable tool for examiners and regulators”. This rating ensures a bank’s healthy condition by reviewing different aspects of a bank based on a variety of information sources such as a financial statement, funding sources, macroeconomic data, budget and cash flow. Nevertheless, Hirtle and Lopez (1999, p.4) stress that the bank’s CAMEL rating is highly confidential, and only exposed to the bank’s senior management for the purpose of projecting the business strategies, and to appropriate supervisory staff. Its rating is never made publicly available, even on a lagged basis. CAMEL is an acronym for the five components of bank safety and soundness such as capital adequacy, asset quality, management efficiency, earning quality, and liquidity. Detail accounts of each of the indicators are presented below.

2.1.3.1 Capital Adequacy

Capital adequacy has come forth as one of the prominent indicators of the financial health of a banking system. It is very useful for a bank to conserve and protect stakeholders’ confidence and preventing the bank from being bankrupt. It reflects whether the bank has enough capital to bear unexpected losses arising in the future.

Capital adequacy is a reflection of the inner strength of a bank, which would stand it in good stead during the times of crisis. Capital adequacy may have a bearing on the overall performance of a bank, like opening of new branches, fresh lending in high risk but profitable areas, manpower recruitment and diversification of business through subsidiaries or through specially designated branches, as the Reserve Bank of India (RBI) could think these operational dimensions to the bank's capital adequacy achievement Shankar (1997).

Capital is one of the bank specific factors that influence the level of bank profitability. Capital is the amount of own fund available to support the bank's business and act as a buffer in case of adverse situation Athanasoglou et al. (2005). Banks capital creates liquidity for the bank due to the fact that deposits are most fragile and prone to bank runs. Moreover, greater bank capital reduces the chance of distress Diamond (2000). However, it is not without drawbacks that it induce weak demand for liability, the cheapest sources of fund Capital adequacy is the level of capital required by the banks to enable them withstand the risks such as credit, market and operational risks they are exposed to in order to absorb the potential losses and protect the bank's debtors.

According to Dang (2011), the adequacy of capital is judged on the basis of capital adequacy ratio (CAR). The capital adequacy ratio shows the internal strength of the bank to withstand losses during the crisis. The capital adequacy ratio is directly proportional to the resilience of the bank to crisis situations. It has also a direct effect on the profitability of banks by determining its expansion to risky but profitable ventures or areas (Sangmi and Nazir, 2010).

Capital adequacy is the capital expected to maintain a balance with the risk exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution's debt holder. "Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element" (The United States. Uniform Financial Institutions Rating System 1997).

Karlyn (1984) defines the capital adequacy in term of capital-deposit ratio because the primary risk is depository risk derived from the sudden and considerably large scale of deposit withdrawals. In 1930, the FDIC created a new capital model as capital-asset ratios since the default on loans came to expose the greatest risk instead of deposit withdrawals. To gauge the capital adequacy, bank supervisors currently use the capital risk asset ratio. The adequacy of capital is examined based upon the two most important measures such as Capital Adequacy Ratio (CAR) or Capital to Risk-weighted Assets ratio, and the ratio of capital to assets.

The capital adequacy ratio is propounded to ensure that banks can take up a reasonable level of losses arising from operational losses. The higher the CAR ratio, indicates stronger the bank and the more will be the protection of investors. $CAR = (Tier-I\ Capital + Tier-II\ Capital) / Risk\ Weighted\ Assets$. Tier 1 capital includes permanent shareholders' equity; perpetual non-cumulative preference shares, Disclosed reserves and Innovative capital instruments. A tier 2 capital includes undisclosed reserves, Revaluation reserves of fixed assets and long-term holdings of equity securities, General provisions/general loan-loss reserves; Hybrid debt capital instruments and subordinated debt.

Table 2.1 Capital Ratios Analysis

Ratios	Formula
CAR	$\frac{(Tier\ 1\ Capital - Goodwill) + Tier\ 2}{Risk - Weighted\ Assets}$
Equity capital to total assets	$\frac{Total\ Capital}{Total\ Asset}$
Leverage Ratio	$\frac{Debt}{Total\ Shareholders' Equity}$

Source: AIA (1996)

The capital ratio is required to meet a minimum of 8% set by the Bank for International Settlement (BIS). However, it is important to note that in some countries the required minimum capital may vary depending on the local regulators; and the bank might like to have as high a capital ratio as possible.

Each of components in the CAMEL model is scored from 1 to 5. In the context of Capital adequacy, a rating of 1 indicates a strong capital level relative to the financial Institution's risk. Meanwhile, the rating of 5 indicates a critical deficient level of capital, in which immediate assistance from shareholders or external resources is required. Tier 1 capital (core capital) is shareholder equity capital. Tier 2 capitals (supplementary capital) are the bank's loan loss reserves plus subordinated debt which consists of bonds sold to raise funds. Risk weighted assets are the weighted total of each class of assets and off-balance sheet asset exposures, with weights related to the risk associated with each type of assets.

2.1.3.2 Asset Quality

The bank's asset is another bank specific variable that affects the profitability of a bank. The bank asset includes among others current asset, credit portfolio, fixed asset, and other investments. Often a growing asset (size) related to the age of the bank Athanasoglou et al. (2005). More often than not the loan of a bank is the major asset that generates the major share of the banks income. Loan is the major asset of commercial banks from which they generate income. The quality of loan portfolio determines the profitability of banks. The loan portfolio quality has a direct bearing on bank profitability. The highest risk facing a bank is the losses derived from delinquent loans Dang (2011). Thus, nonperforming loan ratios are the best proxies for asset quality. Different types of financial ratios used to study the performances of banks by different scholars. It is the major concern of all commercial banks to keep the amount of nonperforming loans to low level. This is so because high nonperforming loan affects the profitability of the bank. Thus, low nonperforming loans to total loans shows that the good health of the portfolio a bank. The lower the ratio the better the bank performing (Sangmi and Nazir, 2010).

According to Grier (2007), "poor asset quality is the major cause of most bank failures". A most important asset category is the loan portfolio; the greatest risk facing the bank, is the risk of loan losses derived from the delinquent loans. The credit analyst should carry out the asset quality assessment by performing the credit risk management and evaluating the quality of loan portfolio using trend analysis and peer comparison. Measuring the asset quality is difficult because it is mostly derived from the analyst's subjectivity.

Frost (2004) stresses that the asset quality indicators highlight the use of nonperforming loans ratios (NPLs) which are the proxy of asset quality, and the allowance or provision to loan losses reserve. As defined in usual classification system, loans include five categories: standard, special mention, substandard, doubtful and loss NPLs are regarded as the three lowest categories which are past due or for which interest has not been paid for international norm of 90 days. In some countries regulators allow a longer period, typically 180 days. The bank is regulated to back up the bad debts by providing adequate provisions to the loan loss reserve account. The allowance for loan loss to total loans and the provision for loan loss to total loans should also be taken into account to estimate thoroughly the quality of loan portfolio.

The asset quality requirements are taken into CAMEL approach to Bank Analysis (1996) as below:

- ❖ Trends should be noted such as loan concentrations, intra-group lending, and real-estate exposure. For a bank which heavily exposes to lend some specific business sectors and/or business entities, lack of diversification will make its loan portfolio vulnerable. Therefore, AIA designs the portfolio mix shared equally by a third of each of consumer, commercial and industrial loans. Loan loss reserve is the money put aside to pay off loan defaults and serve as an insurance to absorb potential losses caused by risky assets.
- ❖ Loan growth: has there been a large increase in loan growth and in what type of lending; are prudent standards being followed or are they becoming lax due to competition.
- ❖ Non-performing loans: amount, composition, causes for large increase or decreases, how NPLs are defined.
- ❖ Reserves: what levels of reserves in relation to total loans and non-performing loans?
- ❖ Real-estate exposure: what percentage of loans are real estate based and what type of real estate lending-commercial or residential.
- ❖ Intra-group exposure: what level of lending is to affiliated companies; what is the group's primary businesses; what is the level of ownership.

The asset quality is estimated based upon the following key financial ratios,

Table 2.2 Asset Quality Ratios Analysis

Ratios	Formula
NPLs to total loans	$\frac{NPLs}{Total\ Loan}$
NPLs to total equity	$\frac{NPLs}{Total\ Equity}$
Allowance for loan loss ratio	$\frac{Allowance\ for\ Loan}{Total\ Loan}$

Source: AIA (1996)

Each of the components in the CAMEL rating system is scored from 1 to 5. In the context of asset quality, a rating of 1 indicates a strong asset quality and minimal portfolio risks. On the other hand, a rating of 5 reflects a critically deficient asset quality that presents an imminent threat to the institution's viability.

2.1.3.3 Management Efficiency

Management efficiency is one of the key internal factors that determine the bank profitability. The performance of management is often expressed qualitatively through subjective evaluation of management systems, organizational discipline, control systems, quality of staff, and others. Yet, some financial ratios of the financial statements act as a proxy for management efficiency. The capability of the management to deploy its resources efficiently, income maximization, reducing operating costs can be measured by financial ratios.

Management efficiency is basically the capability of the board of directors and management, to identify, measure, and control the risks of an institution's activities and to ensure the safe, sound, and efficient operation in compliance with applicable laws and regulations (Uniform Financial Institutions Rating System 1997).

Grier (2007) suggests that management is considered to be the single most important element in the CAMEL rating system because it plays a substantial role in a bank's success; however, it is subject to measure as the asset quality examination.

Bank analysis states that the management has clear strategies and goals in directing the bank's domestic and international business, and monitors the collection of financial ratios consistent with management strategies. The top management with good quality and experience has preferably excellent reputation in the local communication.

Table 2.3 Management Efficiency Ratios Analysis

Ratios	Formula
Cost to income	$\frac{Cost}{Income}$
Operating Cost to Net Operating Income	$\frac{Operating Cost}{Operating Income}$

Source: AIA (1996)

Each of components in the CAMEL rating system is scored from 1 to 5. In the context of management, a rating of 1 is assigned to note the management and board of directors are fully effective. On the other hand, the rating of 5 is applicable to critically deficient management. Replacing or strengthening may be needed to achieve sound and safe operations.

2.1.3.4 Earning Quality

The Earnings/Profit is a Conventional Parameter of measuring financial performance. Higher income generally reflects a lack of financial difficulties and so would be expected to reduce the likelihood of failure of a bank Cole and Gunther (1996). In the pre-liberalization phase (before 1991), interest income used to be reckoned on an accrual basis with little variation therein. In the absence of any uniform norm on provisioning against bad debts and depreciation in investment, the variation in accounting profit was mainly due to provisions and contingencies. Some semblance of uniformity was first introduced in 1992-93 with the phased implementation of prudential accounting standards which however brought about a wide variation in the current period income, as interest income was henceforth required to be reckoned on a realization basis. This is reflected in the emergence of operational performance measure in the shape of earnings analysis Hansda (1995).

This rating reflects not only the quantity and trend in earning, but also the factors that may affect the sustainability of earnings. Inadequate management may result in loan losses and in return require higher loan allowance or pose high level of market risks. The future performance in earning should be given equal or greater value than past and present performance.

In accordance with Grier (2007)'s opinion, a consistent profit not only builds the public confidence in the bank but absorbs loan losses and provides sufficient provisions. It is also necessary for a balanced financial structure and helps provide shareholder reward. Thus consistently healthy earnings are essential to the sustainability of banking institutions. Profitability ratios measure the ability of a company to generate profits from revenue and assets.

Table 2.4 Earning Quality Ratios Analysis

Ratios	Formula
Net interest income Margin (NIM)	$\frac{\text{Net Interest Income}}{\text{Total Loan and Advance}}$
Return on asset (ROA)	$\frac{\text{Net Interest Income}}{\text{Total Asset}}$
Return on equity (ROE)	$\frac{\text{Net Interest Income}}{\text{Shareholders' Equity}}$

Source: AIA (1996)

Each of the components in the CAMEL rating system is scored from 1 to 5. In the context of earning, a rating of 1 reflects strong earnings that are sufficient to maintain adequate capital and loan

allowance, and support operations. On the other hand, a rating of 5 experiences consistent losses and represents a distinct threat to the institution's solvency through the erosion of capital.

2.1.3.5 Liquidity

Liquidity is another factor that determines the level of bank performance. Liquidity refers to the ability of the bank to fulfil its obligations, mainly of depositors. According to Dang (2011) adequate level of liquidity is positively related with bank profitability. The most common financial ratios that reflect the liquidity position of a bank according to the above author are customer deposit to total asset and total loan to customer deposits. Other scholars use different financial ratio to measure liquidity. For instance Ilhomovich (2009) used cash to deposit ratio to measure the liquidity level of banks in Malaysia. However, the study conducted in China and Malaysia found that liquidity level of banks has no relationship with the performances of banks Said and Tumin, (2011).

There should be adequacy of liquidity sources compared to present and future needs, and availability of assets readily convertible to cash without undue loss. The fund Management practices should ensure an institution is able to maintain a level of liquidity sufficient to meet its financial obligations in a timely manner; and capable of quickly liquidating assets with minimal loss.

Rudolf (2009) emphasizes that "the liquidity expresses the degree to which a bank is capable of fulfilling its respective obligations". Banks makes money by mobilizing short-term deposits at lower interest rate, and lending or investing these funds in long-term at higher rates, so it is hazardous for banks mismatching their lending interest rate. The liquidity requirements are taken into to Bank Analysis as below:

- ❖ Majority of the funding is coming from customer's deposits, and no concentration of funding sources.
- ❖ Is there a maturity or interest rate mismatch?
- ❖ Does the central bank impose reserve requirements?

The profitability is estimated based upon the following key financial ratios,

Table 2.5 Liquidity Ratios Analysis

Ratios	Formula
Customer deposits to total assets	$\frac{\text{Total Customer Deposit}}{\text{Total Asset}}$
Total loan to customer deposits	$\frac{\text{Total Loan}}{\text{Total Customer Deposit}}$

Source: AIA (1996)

Each of the components in the CAMEL rating system is scored from 1 to 5. In the context of liquidity, a rating of 1 represents strong liquidity levels and well-developed funds as the institution has access to sufficient sources of funds to meet present and anticipated liquidity needs. On the other hand, the rating of 5 signifies critical liquidity deficiency, and the institution demands immediate external assistance to meet liquidity needs.

2.1.4 Banking Sector in Ethiopia

The history of the use of modern money in Ethiopia can be traced back more than 2000 years. It flourished in what is called the Axumite era which ran from 1000 BC to around AD 975. Leaving that long history aside, modern banking in Ethiopia started in 1905 with the establishment of Abyssinian Bank, which was based on a fifty year agreement with the Anglo-Egyptian National Bank. The agreement that was reached in 1905 between Emperor Minilik II and Mr. Ma Gillivray, representative of the British owned National Bank of Egypt marked the introduction of modern banking in Ethiopia. Following the agreement, the first bank called the Bank of Abyssinia was inaugurated in Feb. 16, 1906 by the Emperor. The Bank was totally managed by the Egyptian National Bank and the following rights and concessions were agreed upon the establishment of the Bank of Abyssinia.

Within the first fifteen years of its operation, Bank of Abyssinia opened branches in different areas of the country. In 1906 a branch in Harar (Eastern Ethiopia) was opened at the same time of the inauguration of the Bank of Abyssinia in Addis Ababa. Another at Dire Dawa was opened two years later and at Gore in 1912 and at Dessie and Djibouti in 1920. Mac Gillivray, the representative and negotiator of Bank of Egypt, was appointed to be the governor of the new bank and he was succeeded by H Goldie, Miles Backhouse, and CS Collier were in charge from 1919 until the Bank's liquidation in 1931.

The society at that time being new to the banking service, Bank of Abyssinia had faced the difficulty of familiarizing the public with it. It had also need to meet considerable cost of installation and the costly journeys with its administrative personnel. As a result, despite its monopolistic position, the Bank earned no profit until 1914. Profits were recorded in 1919, 1920 and from 1924 onwards.

Generally, in its short period of existence, the Bank of Abyssinia had been carrying out limited business such as keeping government accounts, some export financing and undertaking various tasks for the government. Moreover, the Bank faced enormous pressure for being in efficient and purely profit motivated and reached an agreement to abandon its operation and be liquidated in order to disengage banking from foreign control and to make the institution responsible to Ethiopia's credit needs. Thus by 1931 Bank of Abyssinia was legally replaced by Bank of Ethiopia shortly after Emperor Haile Selassie came to power.

The new Bank, Bank of Ethiopia, was a purely Ethiopian institution and was the first indigenous bank in Africa and established by an official decree on August 29, 1931 with capital of £750,000. Bank of Egypt was willing to abandon its concessionary rights in return for a payment of Pound Sterling 40,000 and the transfer of ownership took place very smoothly and the offices and personnel of the Bank of Abyssinia including its manager, Mr. Collier, being retained by the new Bank. Ethiopian government owned 60 percent of the total shares of the Bank and all transactions were subject to scrutiny by its Minister of Finance.

Bank of Ethiopia took over the commercial activities of the Bank of Abyssinia and was authorized to issue notes and coins. The Bank with branches in Dire Dawa, Gore, Dessie, Debre Tabor, Harar, agency in Gambella and a transit office in Djibouti continued successfully until the Italian invasion in 1935. During the invasion, the Italians established branches of their main Banks namely Banca d'Italia, Banco di Roma, Banco di Napoli and Banca Nazionale del lavoro and started operation in the main towns of Ethiopia. However, they all ceased operation soon after liberation except Banco di Roma and Banco di Napoli which remained in Asmara. In 1941 another foreign bank, Barclays Bank, came to Ethiopia with the British troops and organized banking services in Addis Ababa, until its withdrawal in 1943. Then on 15th April 1943, the State Bank of Ethiopia commenced full operation after 8 months of preparatory activities. It acted as the central Bank of Ethiopia and had a power to issue bank notes and coins as the agent of the Ministry of Finance. In 1945 and 1949 the Bank was granted the sole right of issuing currency and deal in foreign currency. The Bank also functioned as the principal commercial bank in the country and engaged in all commercial banking activities.

The State Bank of Ethiopia had established 21 branches, including a branch in Khartoum, Sudan and a transit office on Djibouti until it ceased to exist by bank proclamation issued in December, 1963. Then the Ethiopian Monetary and Banking law that came into force in 1963 separated the function of commercial and central banking creating National Bank of Ethiopia and commercial Bank of Ethiopia. Moreover, it allowed foreign banks to operate in Ethiopia limiting their maximum ownership to being 49 percent, while the remaining balance should be owned by Ethiopians.

The National Bank of Ethiopia with more power and duties started its operation in January 1964. Following the incorporation as a share company on December 16, 1963 as per proclamation No.207/1955 of October 1963, Commercial Bank of Ethiopia took over the commercial banking activities of the former State Bank of Ethiopia. It started operation on January 1, 1964 with a capital of Eth. Birr 20 million. In the new Commercial Bank of Ethiopia, in contrast with the former State Bank of Ethiopia, all employees were Ethiopians.

There were two other banks in operation, namely Banco di Roma S. and Banco di Napoli S.C. that later reapplied for license according to the new proclamation each having a paid up capital of Eth. Birr 2 million.

The first privately owned bank, Addis Ababa Bank Share Company, was established on Ethiopians initiative and started operation in 1964 with a capital of 2 million in association with National and Grindlay Bank, London, which had 40 percent of the total share. In 1968, the original capital of the Bank rose to 5.0 million and until it ceased operation, it had 300 staff at 26 branches.

There were other financial institutions operating in the country like the Imperial Savings and Home Ownership public Association (ISHOPA) which specialized in providing loans for the construction of residential houses and to individuals under the guarantee of their savings. There was also the saving and Mortgage Corporation of Ethiopia, whose aims and duties were to accept savings and trust deposits account and provide loans for the construction, repair and improvement of residential houses, commercial and industrial buildings and carry out all activities related to mortgage operations. On the other hand, there was a bank called the Agricultural Bank that provides loan for the agricultural and other relevant projects established in 1945. But in 1951 the Investment Bank of Ethiopia replaced it. In 1965, the name of the bank once again, hanged to Ethiopian Investment Corporation Share Company and the capital rose to Eth. Birr 20 million, which was fully paid up. However, proclamation No.55 of 1970 established the Agricultural and Industrial Development Bank

Share Company by taking over the asset and liability of the former Development Bank and Investment Corporation of Ethiopia.

Following the declaration of socialism in 1974 the government extended its control over the whole economy and nationalized all large corporations. Organizational setups were taken in order to create stronger institutions by merging those that perform similar functions. Accordingly, the three private owned banks, Addis Ababa Bank, Banco di Roma and Banco di Napoli Merged in 1976 to form the second largest Bank in Ethiopia called Addis Bank with a capital of Eth. birr 20 million and had a staff of 480 and 34 branches. Before the merger, the foreign participation of these banks was first nationalized in early 1975. Then Addis Bank and Commercial Bank of Ethiopia S.C. were merged by proclamation No.184 of August 2, 1980 to form the sole commercial bank in the country till the establishment of private commercial banks in 1994. The Commercial Bank of Ethiopia commenced its operation with a capital of Birr 65 million, 128 branches and 3,633 employees. The Savings and Mortgage Corporation and Imperial Saving and Home Ownership Public Association were also merged to form the Housing and Saving Bank with working capital of Birr 6.0 million and all rights, privileges, assets and liabilities were transferred by proclamation No.60, 1975 to the new bank.

Proclamation No.99 of 1976 brought into existence the Agricultural and Industrial Bank, which was formed in 1970 as a 100 percent state ownership, was brought under the umbrella of the National Bank of Ethiopia. Then it was re-established by proclamation No. 158 of 1979 as a public finance agency possessing judicial personality and named Agricultural and Industrial Development Bank (AIDB). It was entrusted with the financing of the economic development of the agricultural, industrial and other sectors of the national economy extending credits of medium and long-term nature as well as short-term agricultural production loans. The financial sector in the socialist oriented government left behind constituted only three banks, and each enjoying monopoly in its respective market. The NBE, CBE and Agricultural and Industrial development Bank was the structure of the sector at the end of the era.

Following the demise of the Dergue regime in 1991 that ruled the country for 17 years under the rule of command economy, the EPRDF declared a liberal economy system. In line with this, Monetary and Banking proclamation of 1994 established the national bank of Ethiopia as a judicial entity, separated from the government and outlined its main function. Monetary and Banking proclamation No.83/1994 and the Licensing and Supervision of Banking Business No.84/1994 laid down the legal basis for investment in the banking sector.

Since economic reform of 1992 under the new government, the existing government, banks have been re-organized so as to operate based on market-oriented policy framework but with 100% ownership of the government. Moreover, new Ethiopian private-owned financial institutions are allowed to participate in the country's financial sector. However, from the time of nationalization onwards (or since 1974), no foreign bank has been allowed to operate in Ethiopia and participation of the private sector to the ownership of government banks has been prohibited. Shortly afterwards, privately owned banks such as Awash International Bank (1994), Dashen Bank (1995), Bank of Abyssinia (1995), Wegagen Bank (1997), United Bank (1998), Nib International Bank (1999), cooperative Bank of Oromia (2004), Lion International Bank (2007), Oromia International Bank (2008), Buna International Bank (2008), Birehan International Bank (2009), and Zemen Bank (2009) were established and operating in the country. During the year 2009/10, six additional private banks, Enat Bank, Debub Global Bank, Zemez Bank, Addis International Bank, Hawassa Bank, and Abay Bank, have got its license. Therefore, with the establishment of the above six banks the number of the private bank in the country has reached eighteen.

Currently, the banking industry of Ethiopia is dominated by the three state owned banks namely, commercial bank of Ethiopia, construction and business bank and development bank of Ethiopia. Due to the existence of these three dominant state owned banks, the private commercial banks play a minimal role in the financial system of the country. However the state owned banks were comparatively inefficient relative to private banks Ebisa, (2012).

2.2 Empirical Literature

In order to evaluate the financial performance of banking sector the researchers, academicians and policy makers have investigated several studies in different time periods. A study conducted by Barr et al. (2002) viewed that "CAMEL rating criteria has become a concise and indispensable tool for examiners and regulators". This rating criterion ensures a bank's healthy condition by reviewing different aspects of a bank based on a variety of information sources such as a financial statement, funding sources, macroeconomic data, budget and cash flow. Said and Saucier (2003) used CAMEL rating methodology to evaluate the liquidity, solvency and efficiency of Japanese Banks, the study evaluated capital adequacy, assets and management quality, earnings ability and liquidity position. Sarker (2005) in Bangladesh examined the CAMEL model for regulation and supervision of Islamic banks of the central bank. This study enabled the regulators and supervisors to get a Shariah bench mark to supervise and inspect Islamic banks and Islamic financial institutions from an Islamic perspective. Nurazi and Evans (2005) investigated whether CAMEL ratios could be used to predict

bank failure. The results suggested that adequacy ratio, asset quality, management, earnings, liquidity and bank size are statistically significant in explaining bank failure. Olweny and Shipo (2011) found that poor asset quality and low levels of liquidity are the two major causes of bank failures. Poor asset quality led to many bank failures in Kenya in the early 1980s. Ongore and Kusa (2013) concluded that the financial performance of commercial banks in Kenya was driven mainly by board and management decisions, while macroeconomic factors have insignificant contribution.

Satish, et al. (2005) concluded that the Indian banking system looks sound and information technology will help the banking system grow in strength in future. Al-Tamimi (2010) investigated factors influencing the performance of Islamic banks and conventional banks in (UAE) during 1996 to 2008. The study resulted that liquidity and concentration were significant determinants of conventional banks performance while cost and number of branches significantly influenced the performance of Islamic banks. Gupta and Kaur (2008) conducted the study with the main objective to assess the performance of Indian private sector banks using CAMEL model and gave rating to top five and bottom five banks. Reddy and Prasad (2011) discussed the financial performance of selected regional rural banks during post reorganization period. The study adopted CAMEL model to examine the overall performance of Andhra Pragathi Grameena Bank and Sapthagiri Grameena Bank. Siva and Natarajan (2011) empirically tested the applicability of CAMEL and its consequential impact on the performance of SBI Groups. The study found that CAMEL scanning helps the bank to diagnose its financial health and alert the bank to take preventive steps for its sustainability. Sangmi and Nazir (2010) opined that liquidity management is one of the most important functions of a bank. If funds tapped are not properly utilized, the institution will suffer loss. Alabede (2012) concluded that in the presence of the effect of global financial condition, only assets quality and market concentrations are significant determinants of the Nigerian banks' performance. The study suggested reducing nonperforming assets and introducing a policy to encourage fair competition among the banks.

However, even if there are several researches in the area of banks performance evaluation in other countries (both developed and developing), as to the extent of the researcher knowledge; in Ethiopia there are a little studies on these area particularly using CAMEL model to evaluate the performance of commercial banks, Legas (2010) evaluated bank performance pre and post liberalization of commercial bank of Ethiopia by adopting the CAMEL model. The study resulted that the financial liberalization or reform measures brought a significant change in the bank to exert much effort on creating higher level of credit quality services to its customers which help it to develop better

performance in credit/ loan management. The study also found that the liquidity performance indicator in the study shows that the CBE has better liquidity performance in the post reform period than before.

Getahun (2015) *Analysing Financial Performance of Commercial Banks in Ethiopia through CAMEL Approach*, The Empirical CAMEL model findings regarding the elements of the model and profitability as measured by ROA and ROE suggest the following: The relationship between capital adequacy Ratio and Profitability is negative. As to the level of significance the result shows capital adequacy ratio is insignificant for ROA even at 10% significant level while it was significant for ROE at 1% significant level. The relationship between Asset quality ratio and profitability is negative and with 1% significance level statistically significant for ROA whereas insignificant level ROE. As to the relationship between Management efficiency ratio and profitability is negative and statistically significant at 1% significance level. In addition to this the coefficient of the variable was relatively high for both profitability measures. The result showed Positive relationship between Earning ratio and Profitability with strong statically significance. The result showed positive relationship between Liquidity ratio and profitability. The result shows liquidity ratio was statically significant at 5% significant level.

Assefa (2013) studied the Performance of Commercial Banks of Ethiopia and Global Financial Crisis. The study resulted that the performance of Commercial banks in Ethiopia measured by CAMEL mainly changes in accordance with NBE directives. The directives imposed at different time affected all components of CAMEL negatively or positively. However, regardless the tight monitory directives of NBE their performance had been improved. Regarding the global financial crisis, for developing countries such as Ethiopia, the immediate impact of the crisis was reflected mainly in the shortage of foreign exchange flows needed for their economic growth. The financial crisis hampered the capacities of the developed world to channel adequate volumes of foreign exchange to developing countries through purchase of developing countries' goods and services, giving grants, and through tourist and Diaspora remittance flows.

Alemu (2015) studied Banking Performance Using Capital Adequacy in Ethiopia during the period 2000-13. The study showed that there is a positive relationship between capital adequacy and bank performance at 5% significant level, which supports the theory and the past studies made in different parts of the world. And it had been indicated by the regression analysis above that owns fund has positive and significant effect whereas the customer deposit/creditors fund has negative effect though insignificant on the overall performance of the banking industry in Ethiopia. Therefore, in order to

maximize the profitable level, banking industry in Ethiopia should look for financing from owners in the form of issuing stock as much as possible instead of solely depending upon fund from creditors or depositors.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

This chapter presents the underlying principles of research methodology and the choice of the appropriate research method for the thesis. The chapter is organized as follows. Section 3.1 discusses the research approach and design, Section 3.2 discusses variables, data sources and data collection methods, Section 3.3 discuss population and sample design while the last sections 3.4 discuss data analysis and tools.

3.1 Research Approach and Design

The study aims to evaluate the financial performance of Dashen Bank (DB) by focusing on all five parameters of Camel Model i.e. Capital adequacy, Asset quality, Management Efficiency, Earnings quality and Liquidity.

To analyse the financial performance of Dashen Bank the quantitative approach are used. Quantitative methods emphasis on objective measurement and numerical analysis of data collected from the annual audited financial statements and annual reports of the bank. Primary data is also collected through unstructured interview with sample of two top management officials from the planning and development section and investment and accounts section of Dashen Bank.

This study is used a descriptive financial ratio analysis to measure, describe and analyse the performance of Dashen Bank during the period 2006-2015. The purpose of using the descriptive research method is to acquire accurate, factual, systematic data that can give an actual picture of the data set for this study.

3.2 Variables, Data Sources and Data Collection Methods

Although the study is mainly focused on historical data, which is based on an analysis of previous year financial statements, and incorporates both primary and secondary data. Secondary data related to 10 years (2006 – 2015) is used to calculate the key financial ratios of the bank for the above mentioned period. On the other hand primary data are data related with the opinion of top management official of Dashen Bank through unstructured interview in a bid to triangulate the findings.

Secondary data is collected through company reports, audited financial statements, magazines and annual published materials. On the other hand primary data is collected through unstructured

interview with sample of two top management officials from the planning and development section and investment and accounts section of Dashen Bank.

The main objective of preferring unstructured interview is to find facts depending on the situation encountered at the time of interview. If it was structured the possibility of getting facts is lesser whereas there is a possibility of generating new ideas relying upon the respondent’s initiation in unstructured interview. Incorporation of facts from secondary sources is useful to generate tangible evidences about the financial performance condition of the bank.

3.3 Population and Sample Design

Even if the study is mainly incorporated with the annual reports of the bank, the researcher uses primary as well as secondary source of data collection methods. The population in this study incorporates ten top management officials in the planning and business development section and the accounts and treasury section, which are key for preparation and interpretation of financial statements and making of decision about the future based on financial statements.

The researchers assumed a sample of two top management officials from a total of ten populations to acquire quality and relevant information. Here, the technique of sampling was purposive. The researcher’s intention to use purposive sampling for the population is due to the quality of information obtained from the samples. In addition to this, such individuals were being part of top management and also have sufficient financial knowledge.

3.4 Data Analysis and Tools

This study primarily used CAMEL model to evaluate the financial performance of Dashen Bank. For applying this model, five main dimensions of the performance (Capital adequacy, Assets quality, Management efficiency, Earning quality and Liquidity) are assessed using ratio analysis. For that purpose the financial ratios are divided into five main categories.

Table 3.1 Ratios used in CAMEL model

C	Capital Adequacy	<ul style="list-style-type: none"> a) Capital Adequacy Ratio, b) Debt-Equity Ratio c) Advances to Assets d) Govt. Securities to Total investment
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A	Assets Quality	<ul style="list-style-type: none"> a) Gross NPA to Net Advances b) Net NPAs to Net Advances c) Total Investments to Total Assets d) Net NPAs to Total Assets
M	Management Efficiency	<ul style="list-style-type: none"> a) Total Advances to Total Deposits b) Business per Employee c) Profit per Employee
E	Earning Quality	<ul style="list-style-type: none"> a) Operating Profits to Average Working Funds. b) Spread to Total Assets c) Net Profit to Average Assets d) Interest Income to Total Income. e) Non-Interest Income to Total Income
L	Liquidity	<ul style="list-style-type: none"> a) Liquid Assets to Total Assets b) Govt. Securities to Total Assets c) Liquid Assets to Demand Deposits d) Liquid Assets to Total Deposits

Source: Adopted from AIA (1996), Sangmi and Tabassum (2010) and Ramchandram & Hanmugam (2012)

Capital Adequacy

It is important for a bank to maintain depositor's confidence and preventing the bank from going bankrupt. Capital is seen as a cushion to protect the depositors and to promote the stability and efficiency of financial system around the world. Capital adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It also indicates whether the bank has enough capital to absorb unexpected losses. Capital adequacy ratio acts as an indicator of bank leverage. The following ratios measure Capital Adequacy:

- a. **Capital Adequacy Ratio:** This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. Higher ratio indicates less protection for the creditors and depositors in the banking system. The capital ratio is required to meet a minimum of 12% set by National Bank of Ethiopia (NBE). CAR is calculated according to the national bank of Ethiopia directives, presented as below:

$$CAR (\%) = \frac{\text{Total Capital}}{\text{Total Risk Weighted Asset}} * 100$$

- Total Capital means the sum of paid-up capital, donated capital, retained earnings and any other free reserves of the bank;
 - Total Risk-weighted Assets means assets of a bank determined by weighting each asset item by the weight assigned to it and aggregating the result so obtained in accordance with Minimum Capital Requirements Directives No. MFI/25/2013a. The classification of risk weights is kept in 3 weights (0%, 20% and 100%);
- b. **Debt-Equity Ratio:** The ratio indicates the degree of leverage of a bank. It indicates the extent of the bank business which is financed through debt and equity. This is calculated as the proportion of total outside liability to net worth. 'Outside Liabilities' includes total borrowings, deposits and other liabilities. 'Net Worth' includes equity capital and reserves & surplus. Higher ratio indicates less protection for the creditors and depositors in the banking system.
- c. **Advances to Assets:** Advances to Assets is the ratio of the total advances to total assets. This ratio indicates a bank's aggressiveness in lending which ultimately results in better profitability. Higher ratio of advance/deposits (assets) is preferred to a lower one. Total advances also include receivables. The value of total assets excludes the re-valuation of all the assets.
- d. **Government Securities (G-Secs) to Total Investments:** The percentage of investment in government securities to total investments is a very important indicator, which shows the risk-taking ability of the bank. It indicates a bank's strategy as being high profit-high risk or low profits-low risk. It also provides a view as to the availability of alternative investment opportunities. Government securities are generally considered as the most safe debt instrument, which, as a result, carries the lowest return.

Assets Quality

The quality of assets is an important parameter to gauge the strength of the bank. The prime motto behind measuring the assets quality is to ascertain the component of non-Performing Assets (NPA) as a percentage of the total assets. This indicates the models of advances which the bank has made to generate interest income. Thus, assets quality indicates the type of the debtors the bank is having. The following ratios are necessary to assess the asset quality:

- a. **Gross NPAs to Net Advances:** It is a measure of the quality of assets in a situation, where the management has not provided for loss on NPAs. The Gross NPAs are measured as a percentage of Net Advances. The lower the ratio betters the quality of advances.

- b. **Net NPAs to Net Advances:** It is the most standard measure of assets quality. In this ratio, Net NPAs are measured as a percentage of Net Advances. Net NPAs are gross NPAs net of provision on NPAs and interest in suspense account.
- c. **Total Investments to Total Assets Ratio:** Total investments to total assets indicate the extent of deployment of assets in investment as against advances. The ratio is applied as a tool to measure the percentage of total assets locked up in investments, which, by conventional definition, does not form part of the core Income of the bank. A higher level of investment lack of credit off-take in the economy. The ratio is calculated by dividing total investments by total assets of the bank. A higher ratio indicates that the bank has conservatively kept a high cushion of investment to guard against NPAs. However, this also affects its profitability adversely.
- d. **Net NPAs to Total Assets:** This ratio indicates the efficiency of the bank in assessing credit risk and, to an extent, recovering the debts. The ratio is arrived by dividing the Net NPAs by Total Assets. Total assets considered are net of revolution reserves. Lower the ratio better is the performance of the Bank.

Management Efficiency

Management efficiency is another important element of the CAMEL model. The ratios in this element involve subjective analysis to measure the efficiency and effectiveness of management. The management of the bank takes crucial decisions depending on its risk perception. It sets vision and goals for the organization and sees that it achieves them. This parameter is used to evaluate management efficiency as to assign premium to better quality banks and discount poorly managed ones. The ratios that are used to evaluate management efficiency are:-

- a. **Total Advances to Total Deposits:** This ratio measures the efficiency and ability of the bank's management in converting the deposits available with the bank (excluding other funds like equity capital, etc.) into high earnings advances. Total Deposits include demand deposits, saving deposits, term deposits and deposits of other banks. Total Advances also include the receivables.
- b. **Business per Employee:** This ratio shows the productivity of human forces of the bank. It is used as a tool to measure the efficiency of all the employees of a bank in generating business for the bank. It is arrived at by dividing the total business by total number of employees. Higher the ratio, the better it is for the bank. Business, per employee relates to the sum of Total Deposits and Total Advances in a particular year.

- c. **Profit per Employee:** This ratio indicates the surplus earned per employee. It is arrived at by dividing the Profit after Tax (PAT) earned by the bank by the total number of employees. The higher the ratio, the higher the efficiency of the management.

Earning Quality

The quality of earnings is an important criterion that determines the ability of a bank to earn consistently, going into the future. It basically determines the profitability of the banks. It also explains the sustainability and growth in earnings in the future. The parameter gains importance in the light of the argument that a large part of a bank's income is earned through non-core activities like investments, treasury operations, and corporate advisory services and so on. The following ratios try to assess the quality of income in terms of income generated by core activity- income from lending operations:

- a. **Operating Profits to Average Working Funds Ratio:** This ratio indicates how much a bank can perform its operations net of the operating expenses for every Birr spent on working funds. This is arrived at by dividing the operating profits by average working funds. Average Working Funds (AWF) are the total resources (total assets/liabilities) employed by a bank. It is daily average of total assets/liabilities during a year. The higher the ratio, the better it is. This ratio determines the operating profits generated out of working funds employed. The better utilization of funds will result in higher operating profits. Thus, this ratio will indicate how a bank has employed its working funds in generating profits. Banks, which use their assets efficiently, will tend to have a better average than the industry average.
- b. **Spread or Net Interest Margin (NIM) to Total Assets:** NIM, being the difference between the interest income and the interest expended as a percentage of total assets, shows the ability of the bank to keep the interest on deposits low and interest on advance high. It is an important measure of a bank's core income (income from lending operations). A higher spread indicates the better earnings given the total assets. The interest income includes dividend income and interest expended includes interest paid on deposits and other short term and long-term loans.
- c. **Net Profit to Average Assets:** Profit to average assets indicates the efficiency of the banks in utilizing their assets in generating profits. A higher ratio indicates the better income generating capacity of the assets and better efficiency of management. It is arrived at by dividing the net profit by average assets, which is the average of total assets in the current year and previous year. Thus, the ratio measures the return on assets employed. Higher ratio indicates better earnings potential in the future.

- d. **Interest Income to Total Income:** Interest income is a basic source of revenue for banks. The interest income to total income indicates the ability of the bank in generating income from its lending. In other words, this ratio measures the income from lending operations as a percentage of the total income generated by the bank in a year. Interest income includes income on advances, interest on deposits with the NBE, and dividend income.
- e. **Non-Interest Income to Total Income:** Fee based income accounts for a major portion of a bank's other incomes. The bank generates higher fee income through innovative products and adapting the technology for sustained service levels. The stream of revenue is not dependent on the bank's capital adequacy and consequent potential to generate income is immense. Thus, this ratio measures the income from operations, other than lending, as a percentage of the total income. Non-interest income is the income earned by the banks excluding income on advance and deposits with the NBE. The higher ratio of non-interest income/total income indicates the increasing proportion of fee-based income.

Liquidity

Liquidity is an important aspect for any organization dealing in money. Banks have to take proper care in hedging liquidity risk while at the same time ensuring that a good percentage of funds are invested in higher return generating investment, so that banks can generate profit while at the same time provide liquidity to the depositors. Among a bank's assets, cash investments are the most liquid. The ratios suggested to measure liquidity under CAMEL Model are as follows;

- a. **Liquid Assets to Total Assets:** Liquid assets include cash in hand, balance with the NBE, balance with other banks and money at call and short notice. Total assets include the revaluations of all the assets. The proportion of liquid assets to total assets indicates the overall liquidity position of the bank.
- b. **Government securities (GSecs) to Total Assets:** Government securities are the most liquid and safe investments. This ratio measures the government securities as a proportion of total assets. Banks invest in government securities primarily to meet their Statutory Liquidity Ratio (SLR) requirements,
- c. **Liquid Assets to Demand Deposits:** The ratio measures the ability of a bank to meet the demand from deposits in a particular year. It is arrived at by dividing the liquid assets by total demand deposits. The demand deposits offer high liquidity to the depositors and hence banks have to invest these assets in a highly liquid form. The liquid assets include cash in hand, balance with the NBE, balance with other banks, and money at call and short notice.

d. **Liquid Assets to Total Deposits:** This ratio measures the liquidity available to the deposits of a bank. Total deposits include demand deposits, saving deposits, term deposits and deposits of other financial institutions. Liquid assets include cash in hand, balance with NBE, balance with other banks, and money at calls and short notice. The liquid asset to deposit ratio, which the National Bank of Ethiopia, has set the minimum liquid asset of the Bank not to be less than 15% of the Banks net current liability. Out of this the directive obliged banks to hold 5% of them in primary reserve assets (see directive no NBE directive no.SBB/43/2008).

Next to data analysis, the researcher report the outcome of their finding based on the analysis of 10 years financial statements and unstructured interview held with selected officials of the bank. In the process the collected primary as well as secondary data values are edited, summarized, categorized and possible generalization and inferences was made by the researchers. The researchers use the descriptive data analysis technique to analyse the outcome of the study and are presented as a ratio in the form of tables and graphs.

CHAPTER FOUR: RESULTS AND DISCUSSION

This chapter presents the analysis results of the data and the discussions emanating from the results are presented under the following headings such as: capital adequacy analysis, asset quality analysis, management efficiency analysis, earning quality analysis, and liquidity analysis.

4.1 The Status of Dashen Bank based on Capital Adequacy Criteria

Capital adequacy is a reflection of the inner strength of a bank and it may have a bearing on the overall performance of a bank, like opening of new branches, fresh lending in high risk but profitable areas, manpower recruitment and diversification of business through specially designated branches, could think these operational dimensions to the bank's capital adequacy achievement. As it was discussed in the literature part, capital adequacy refers to maintain a balance with the risk exposure of the financial institution such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution's debt holder. "Meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element" (The United States. Uniform Financial Institutions Rating System 1997).

In the volatile economic environment capital is the only protection that any banks can have with them. By using their capital, banks can honour their obligations even in a case of financial crises or breakdown. Therefore depositors are keen to know the risk perception of the institute. Capital adequacy decides to a great extent that how well a bank can cope with the unexpected losses.

Realizing the importance of capital adequacy, National Bank of Ethiopia (NBE) issued directive whereby each banks in Ethiopia is required to meet the capital adequacy standard of 12% since October 1st 2013.

As per Basel Committee on Banking Supervision (BCBS 2004) revised framework and National Bank of Ethiopia (directive no MFI/25/2013a) requirement capital adequacy ratio of Dashen Bank is measured by the ratio of total capital to risk-weighted assets. The higher this ratio entails the capability of Dashen Bank to absorb losses from its own capital. The higher the Capital Adequacy Ratio (CAR), indicates stronger the bank and the more will be the protection of investors.

The following ratios: (a) Capital Adequacy Ratio (CAR), (b) Debt Equity Ratio, (c) Advance to Assets and (d) Government Security to Total Investment were taken into consideration to judge the capital adequacy of Dashen Bank.

Table 4.1: Descriptive Statistics for CA

Year	CAR (%)	D/E (Times)	Adv/Ast (%)	G-Sec/Inv (%)
2006	11%	10.78	71%	0%
2007	12%	10.09	68%	0%
2008	15%	9.73	58%	0%
2009	18%	9.71	48%	0%
2010	15%	10.00	42%	98%
2011	16%	9.50	42%	98%
2012	16%	8.58	46%	99%
2013	15%	8.65	44%	99%
2014	18%	7.45	43%	99%
2015	16%	7.47	46%	99%
Max	18%	10.78	71%	99%
Mini	11%	7.45	42%	0%
Mean	15%	9.20	51%	59%
SD	0.02	1.12	0.11	0.51

Source: Own computation based on financial statements of DB

Capital adequacy Ratio: As it is shown on table 4.1 above, the average capital adequacy ratio of Dashen Bank was above the minimum requirement set by National Bank of Ethiopia (NBE) which is 12% and a minimum of 8% set by the Bank for International Settlement (BIS). Capital adequacy ratio reaches the maximum of 18% in the year 2009 and 2014. Starting from 2006, capital adequacy ratio shows consistent increasing trends up to 2009 with slight decrement in the year 2010, 2013 and 2015. This indicates that Dashen Bank has increased its capital by mobilizing funds and lending in profitable areas. Based on the data collected from unstructured interview, the opinion of the management of Dashen Bank related with computed capital adequacy ratios starts from acceptance of the findings. As per the opinion of the management Dashen Bank increases its capital adequacy ratio by lending in a profitable area, investing in diversified economic sectors such as agriculture, real state, foreign trading, reduce its risk-weighted assets, etc.

Debt-Equity Ratio is also an important ratio to measure the capital adequacy. Higher ratio indicates less protection for the creditors and depositors in the banking system. It is clear that the above table 4.1 shows as; the debt-equity ratio registered fluctuating trend throughout the study period. It is continuously decreasing from 2006 to 2009. Ultimately the ratio increased in 2010 and then decreased onwards. The highest increase rate scored in 2006. The average Debt Equity Ratio of Dashen Bank from 2006 to 2015 is 9.2. This figure shows that in Dashen Bank creditors have contributed more funds than owners that are; creditors' contribution is 9.2 times that of the owners' contribution. This indicates that from the point of view creditors, it represents an unsatisfactory

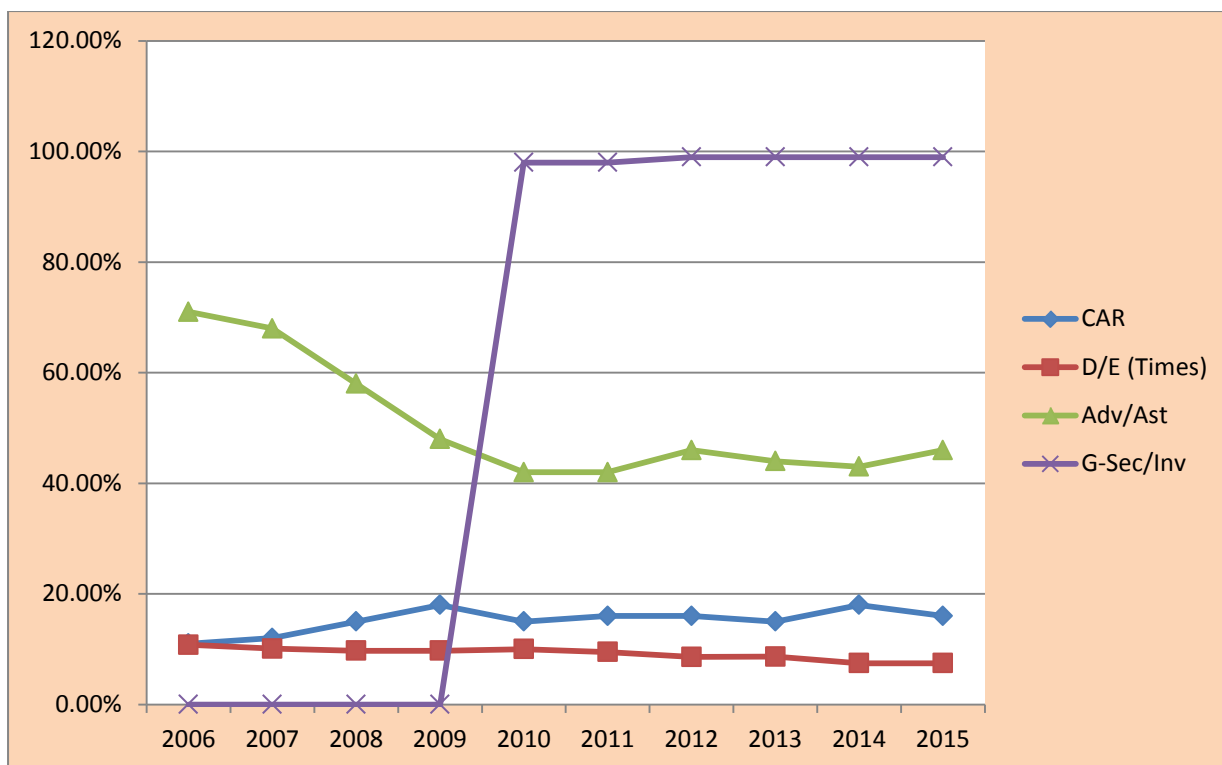
situation since a high portion of debt provides a low margin of safety for them. During the period of low profit, the debt servicing will prove to be high burdensome for Dashen Bank. However, from the shareholders' point of view, there is an advantage during the period of good economic activities. This high debt-equity ratio will provide high rate of earnings to shareholders' when the cost of capital is less than the organization overall rate of return on investment. The average standard deviation of 1.12% for Debt Equity ratio reveals that, there was very little dispersion towards the mean Debt Equity ratio.

The opinion of the management of Dashen Bank related with computed Debt Equity ratio indicate that the increasing in debt proportion from equity of the bank is made intentionally because the money they borrow is also the money they lend. To put it another way, the major product that banks sell is debt. Therefore it is logical that Dashen Bank has more of this product on hand and deposit mobilization remained the primary focus with special emphasis on low cost and sustainable sources of funding.

Total Advances to Total Assets Ratio is a measure of a bank's aggressiveness in lending. Higher ratio indicates higher investment which results in higher profitability. The total advances to total assets ratio registered fluctuating trend during the entire study period. It is continuously decreasing from 2006 to 2011. The ratio increased from 42% in 2011 to 46% in 2012. In the year 2015 the ratio increased from 43% in 2014 to 46% in 2015. The average total advances to total assets ratio and standard deviation is 51% and 0.1 respectively. This indicates that Dashen Bank has shown better profitability position and the management of Dashen Bank had been effective to convert its deposits into loans and advances which are quite appreciable. As per management opinion Dashen Bank exists in a competitive financial industry by mobilizing savings and branch expansion even at low cost and also Dashen Bank is lending based on variability not collateral based.

Government Securities to Total Investments Ratio measures the amount of risk free assets invested by a bank in government securities as a percentage of the total investment held by the bank. The ratio increased from 0% in 2006 to 98% in 2010 as the amount of government securities increased considerably. The average government to total investment ratio of 59% and the standard deviation is 0.51. The direct cause is, the National Bank of Ethiopia had issued a Directive "Establishment and operation of National Bank of Ethiopia Bills Market Directive No MFA/NBEBILLS/001/2011" which requires all banks in Ethiopia to purchase National Bank of Ethiopia (NBE) Bills to the amount of 27% of loans and advances disbursed to raise finance for the Great Renaissance Dam project on Nile River which indicates that Dashen Bank has shown concern on investing much amount of investment in government securities.

Figure 4.1: Trend Analysis of Capital Adequacy of Dashen Bank (2006-2015)



Source: Own computation based on financial statements of DB

As discussed in the literature part meeting statutory minimum capital requirement is the key factor in deciding the capital adequacy, and maintaining an adequate level of capital is a critical element (The United States. Uniform Financial Institutions Rating System 1997). Thus the above figure 4.2 indicates that the achievement of capital adequacy of Dashen Bank continuously improved as per the result of CAR ratio, D/E ratio, Adv/Ast ratio and G-Sec/Inv ratio.

4.2 The Status of Dashen Bank based on Assets Quality Criteria

The term “assets quality” and its management determine to a great extent the growth and profitability of a firm. This is because, the deteriorating value of assets directly also affects other areas because the loan losses are generally written off against capital. Apart from this it also hampers profitability as the provision has to be made on gross non-performance assets. So at the end of the day quality of assets jeopardizes the earning capacity of Dashen Bank. The following ratios (a) Gross Non-Performance Assets to Net Advances, (b) Net Non-Performance Assets to Net advances, (c) Total investment to Total assets and (d) Net Non-Performance Assets to Total Assets were calculated to judge the assets quality of Dashen Bank.

Table 4.2: Descriptive Statistics for AQ

Year	G.NPA/N.Adv. (%)	N.NPA/N.Adv. (%)	TInv/T.Ast (%)	N.NPA/T.Ast. (%)
2006	2.6%	2.1%	0.6%	1.5%
2007	2.2%	1.7%	0.5%	1.2%
2008	2.2%	1.7%	0.4%	1.0%
2009	2.1%	1.9%	0.3%	0.9%
2010	2.0%	1.8%	11.5%	0.7%
2011	2.0%	1.7%	11.6%	0.7%
2012	2.1%	1.8%	16.3%	0.8%
2013	2.1%	1.8%	19.0%	0.8%
2014	1.8%	1.7%	18.8%	0.7%
2015	1.6%	1.4%	23.7%	0.6%
Max	2.6%	2.1%	23.7%	1.5%
Mini	1.6%	1.4%	0.3%	0.6%
Mean	2.1%	1.7%	10.3%	0.9%
SD	0.0	0.0	0.09	0.0

Source: Own computation based on financial statements of DB

Table 4.2 indicates that **Gross Non Performance Assets to Net Advances ratio** (G.NPA/N.Adv) is a measure of the quality of assets in a situation, where the management has not provided for loss on Non-Performance Assets. Hence the Gross Non-Performance Assets are measured as a percentage of Net Advances. A low ratio is better for Dashen Bank. This ratio reveals decreasing trend except the year 2012 to 2013 in which a slight increased from 2% in 2011 to 2.1% in 2012 and 2013. Ultimately the ratio went down to 1.8% and 1.6% in the year 2014 and 2015 respectively. The average ratio remained 2.1% and standard variation is zero which is appreciable.

Net Non-Performance Assets to Net Advances (N.NPA/N.Adv) is the most standard measure to judge the assets quality, measuring the net nonperforming assets as a percentage of net advances. We can observe here that the Gross and Net percentage of Non-Performance Assets has been showing a decreasing trend beginning from 2006 till 2015 except for the year 2009 to 2010 which has shown a slight incline in the percentage of Net Non-Performance Assets. The average ratios and standard variation of Net Non-Performance Assets to Net Advances of Dashen Bank is **1.7%** and **zero** respectively.

Total Investment to total assets ratio: indicates the extent of deployment of assets in investment against advances. This ratio is used as a tool to measure the percentage of total assets locked up in investments. A higher ratio means conservative policy of a bank to provide safeguard to the investments against non-performance assets. The average total investments to total asset ratio was

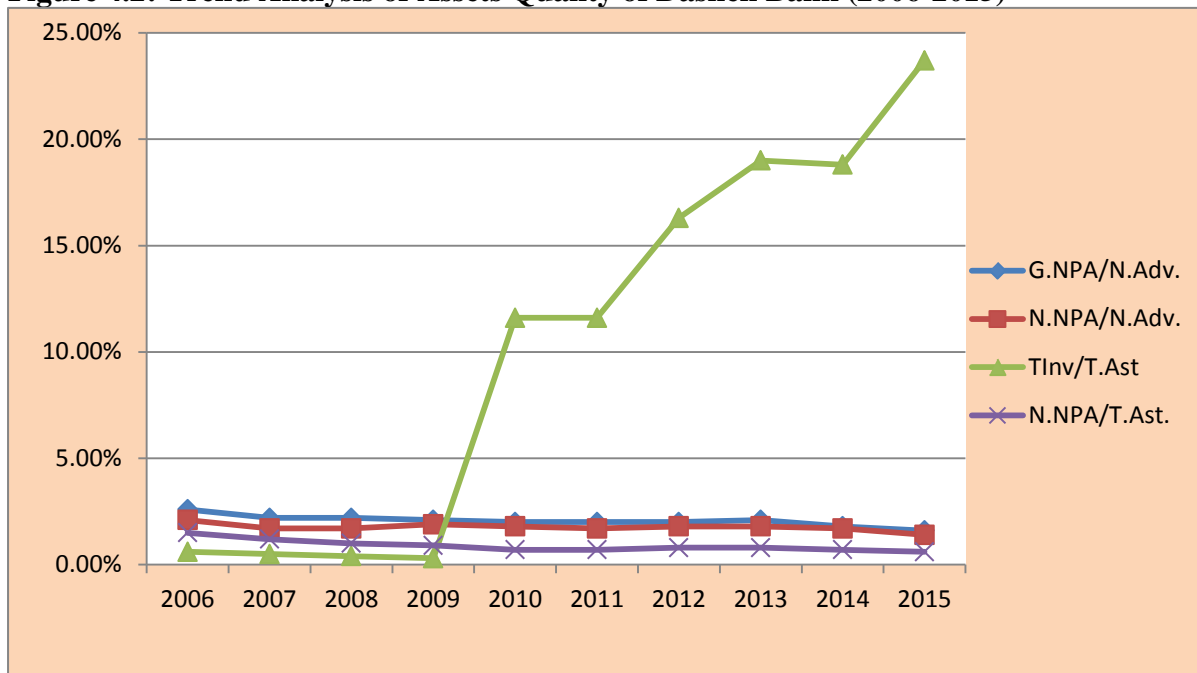
10% which clearly reveals that Dashen Bank invested far below the generally accepted standards of its assets in investment.

The **Net Non-Performance Assets (Net NPA) to Total Asset ratio** reflects the efficiency of Dashen Bank in assessing the credit risk and to some extent recovering the debts. In this ratio, the net non-performance assets are measured as a percentage of total assets. The lower the ratio reflects the better is the quality of advances. We can observe here that the ratio of net non-performance assets to total asset has been showing a decreasing trend beginning from 2006 till 2015 except for the year 2012 to 2013 which has shown an incline in the percentage of net non-performance assets to total asset. The average ratio of Dashen Bank and standard deviation is **1%** and **zero** respectively. This indicates that Dashen Bank has been able to manage advances better.

Over all the analysis in table 4.2 implies that Dashen Bank has been successful to manage its NPAs. The Net NPAs which were 2.1% of Net advances of the bank in 2006 have come down to 1.4% in 2015. This has been possible by using various strategies by the bank. Dashen Bank continued its efforts to reduce its non-performing assets. Thus Dashen Bank has been successful to manage the Net NPA to Net Advances at an average of 1.7%. To be secure and safe, Dashen Bank has been maintaining the provisions for NPAs as per National Bank of Ethiopia (NBE) Directive No. SBB/43/2008. In this way, the asset quality position of Dashen Bank seems quite good as the loan loss cover for NPAs has been provided prudently.

Management's opinion related computed asset quality ratios within the study period starts from acceptance of the findings. Even if they accept the outcomes, as per the management opinion, compared with the industry Dashen Bank is in a better position in terms of maintain the provisions for NPAs i.e. not greater than 3% which is less than the minimum requirement set by National bank of Ethiopia i.e. not greater than 5% and it is given a great attention and daily follow up by the bank's senior staffs.

Figure 4.2: Trend Analysis of Assets Quality of Dashen Bank (2006-2015)



Source: Own computation based on financial statements of DB

As we discussed in the literature part nonperforming loan (asset) ratios are the best proxies for asset quality. It is the major concern of all commercial banks to keep the amount of nonperforming loans to low level. This is so because high nonperforming loan affects the profitability of the bank. Thus, low nonperforming loans to total loans shows that the good health of the portfolio a bank. The lower the ratio the better the bank performing (Sangmi and Nazir, 2010). Thus, the above figure 4.2 indicates that nonperforming loan (asset) ratios are continuously decreasing and Dashen Bank is in a better position in terms of maintaining the provisions for NPAs.

4.3 Status of Dashen Bank based on Management Efficiency Criteria

Sound management is one of the most important factors behind performance of any bank. Management efficiency of a bank includes its administrative ability to react in diverse circumstances. The term management efficiency involves the capability of management in generating business and in maximizing profits. To analyse the possible dynamics of management efficiency affecting the financial performance of Dashen Bank, the following three ratios (a) Total advances to Total deposits, (b) Business per Employee and (c) Profit per Employee were taken to judge the management efficiency of Dashen Bank.

Table 4.3: Descriptive Statistics for Management Efficiency

Year	TAdv/TDe (%)	BPE (Birr)	EPE (Birr)
2006	69%	4749354.79	79755.10
2007	65%	5703183.13	102056.58
2008	52%	6596775.79	117993.62
2009	38%	7536900.52	111105.56
2010	35%	7932581.22	127523.51
2011	36%	8294837.87	159467.57
2012	57%	8858949.04	214,336.66
2013	55%	8002453.53	164432.62
2014	54%	7548684.83	166312.86
2015	58%	7655805.58	158610.83
Max	69%	8858949.04	214,336.66
Mini	35%	4749354.79	79755.10
Mean	52%	7287952.63%	14015949%
SD	0.12	1251970.72	39559.15

Source: Own computation based on financial statements of DB

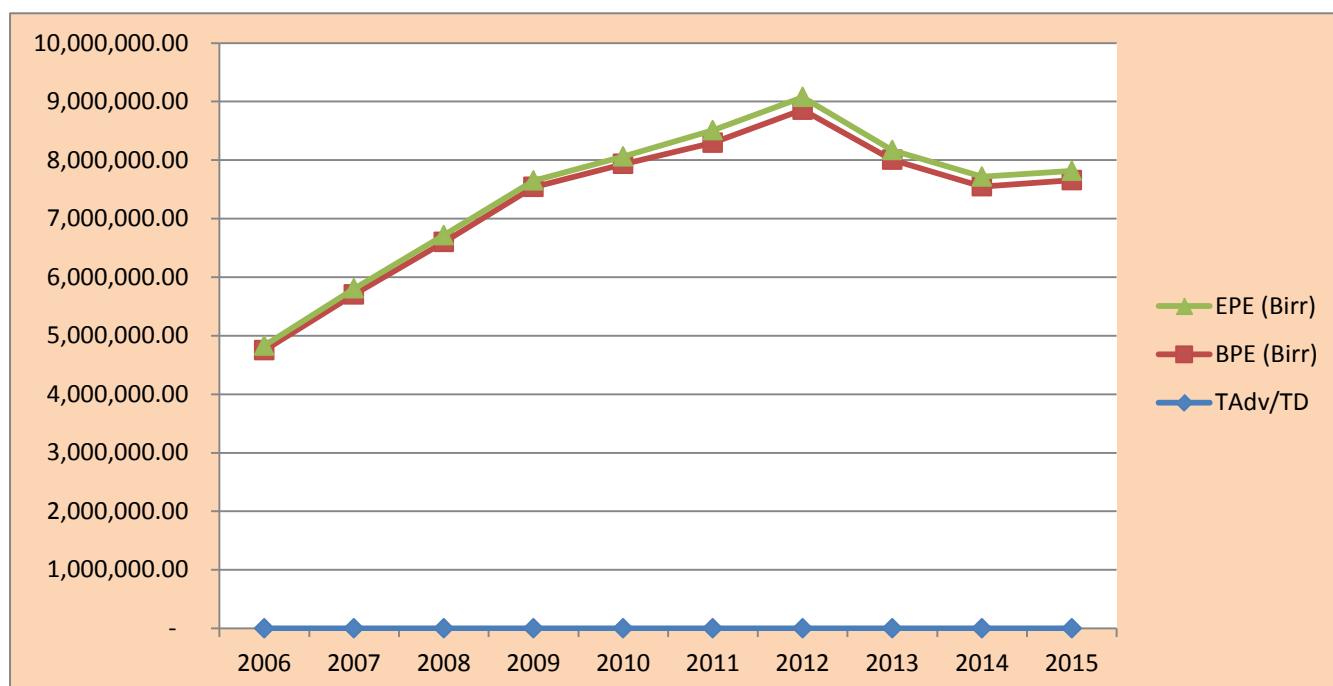
Table 4.3 indicates that **Total Advances to Total Deposits ratio** (TAdv/TDe) is a measure of Dashen Bank's competence to convert the deposits available in Dashen Bank into high earning advances. This ratio registered decreasing trend for the first five years of the study period while afterwards it reveals fluctuating trend. The average total advances to total deposits ratio was 52% and standard deviation was 0.12.

Business Per Employee ratio (BPE) indicates the efficiency of Dashen Bank in terms of doing business with lesser number of employees. Total business per employee ratio reveals increasing trend for the entire study period except the year 2013 in which it decreased from Birr 8,858,949.04 in 2012 to Birr 8,002,453.53 in 2013. The average business per employee ratio was Birr 7,287,952.63.

Profit Per Employee ratio (EPE) indicates the average profit generated per person employed by Dashen Bank reveals increasing trend for the entire study period except the year 2013 in which it decreased from Birr 214,336.66 in 2012 to Birr 164,432.62 in 2013 as on one hand the amount of net profit increased from 133,589,788, in 2006 to 729,133,970 in 2015 and on the other the number of employees increased from 1675 in 2006 to 4597 in 2015. The average profit per employee ratio was Birr 140,159.49. Thus, the analysis in table 4.3 implies that Dashen Bank managers are efficient throughout the study period and it continuously improved. Similar with previous management opinion, here also the opinion starts with accepting the findings of the study. Specifically in this performance measurement, the management argues with the researcher's conclusion in Total Advances to Total Deposits ratio, Business per employee ratio and Profit per employee ratio with in

the study period. As per management opinion Dashen Bank motivate its staffs to be efficient and effective in their jobs and also supervised strongly to be loyal to organization policies and procedures like customers handling, organization resource utilization, etc.

Figure 4.3: Trend Analysis of Management Efficiency of Dashen Bank (2006-2015)



Source: Own computation based on financial statements of DB

Management efficiency means adherence with set norms, ability to plan and respond to changing environment, leadership and administrative capability of the bank. Total Advances to Total Deposits ratio evaluate the efficiency and capability of the bank’s management in applying the deposits into rich earning advances. Hence, in the above figure 4.3 we can understand that in terms of total advance to total deposit, business per employee and profit per employee trend analysis Dashen Bank are still in good position.

4.4 Status of Dashen Bank Based on Earning Quality Criteria

This parameter lays importance on how a bank earns its profits. The quality of earning is very important and decisive factor that determines the ability of a bank to earn consistently. It basically determines the profitability of the bank. Also measuring and closely controlling the statuesque of earning is crucial to maintain bank’s competitive position .That is why this parameter gains importance and widely used in performance measurement. Under earning quality parameter, (a) Operating Profits to Average Working Funds Ratio (b) Spread or Net Interest Margin (NIM) to

Total Assets (c) Net Profit to Average Assets (d) Interest Income to Total Income and (e) Non Interest Income to Total Income were calculated for evaluating the earning quality of Dashen Bank.

Table 4.4: Descriptive Statistics for Earning Quality

Year	OP/WF (%)	Spread (%)	NP/AAst (%)	II/TI (%)	NII/TI (%)
2006	5%	4%	3%	66%	34%
2007	5%	4%	4%	66%	34%
2008	5%	3%	3%	63%	37%
2009	4%	2%	3%	58%	42%
2010	4%	2%	3%	50%	50%
2011	5%	2%	3%	47%	53%
2012	6%	3%	4%	52%	48%
2013	4%	3%	3%	56%	44%
2014	5%	3%	3%	53%	47%
2015	4%	3%	3%	56%	44%
Max	6%	4%	4%	66%	53%
Mini	4%	3%	3%	56%	34%
Mean	5%	3%	3%	56%	43%
SD	0.0	0.0	0.0	0.1	0.1

Source: Own computation based on financial statements of DB

Table 4.4 clearly reveals that **Operating Profit to Average Working Fund Ratio** is an indication of how much Dashen Bank can earn from its operations for every birr spent on working fund. The above table 4.4 indicates that operating profit to working fund ratio registered fluctuating trend throughout the study period. In the beginning of the study period the ratio decreased from 5% in 2008 to 4% in 2009. The ratio again decreased from 6% in 2012 to 4% in 2013. Ultimately the ratio increased from 4% in 2013 to 5% in 2014. The average operating profit to working fund ratio was 5% and standard deviation is zero. From this we can deduce that Dashen Bank is still in a better position and this may be considered that the operations of Dashen Bank will be stable in the future.

Spread is the difference between the interest earned and interest paid. Spread Ratio is expressed as a percentage of total assets. This is a key profitability ratio especially in banking unit which measures bank's core income. A higher spread indicates the better earnings given the total assets. In the above table 4.4 spread ratios registered fluctuating trend during the entire study period. The ratio decreased from 4% in 2007 to 3% in 2008. Similarly, in the year 2011 the ratio increased from 2% to 3% in 2012. The average spread ratio and standard deviation is 3% and zero respectively. This implies that Dashen Bank is still in a better position and may be considered that the operations of Dashen Bank will be stable in the future.

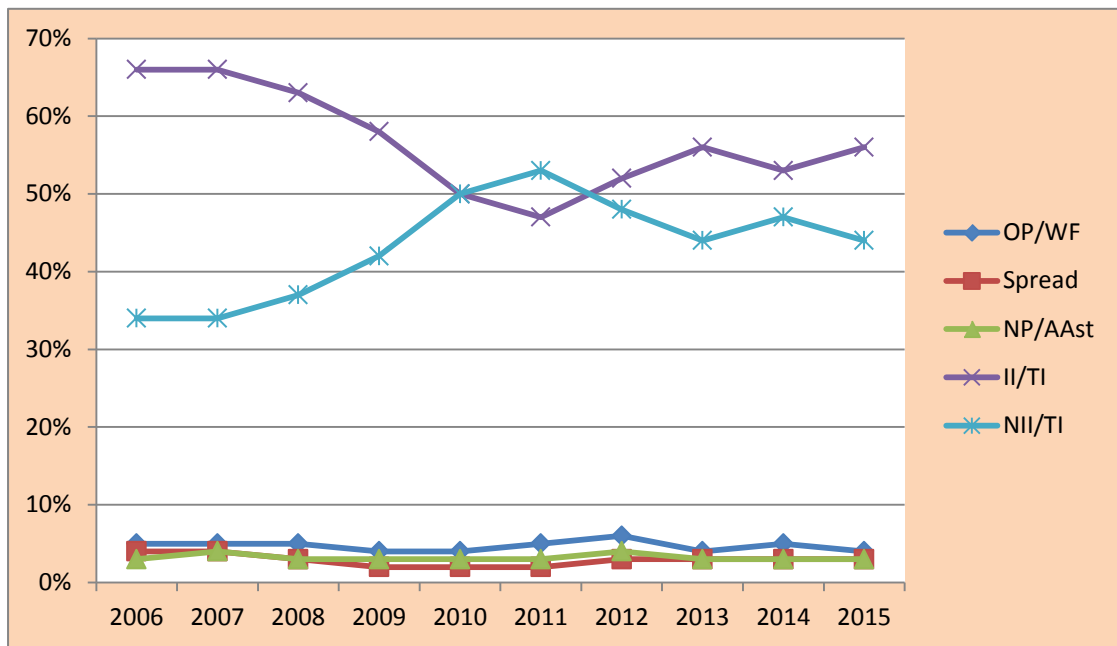
Net Profit to Average Assets Ratio is a key profitability ratio, which measures Dashen Bank's efficiency for using its assets to generate net income. Net Profit to Average Assets Ratio showed fluctuating trend throughout the study period. In the beginning of the study, the ratio increased from 3% in 2006 to 4% in 2007. However, in the year 2008 the ratio decreased from 4% in 2007 to 3% in 2008. The average Net Profit to Average Assets Ratio and standard deviation of Dashen Bank is 3% and zero respectively. From this we can also deduce that Dashen Bank is still in a better position and may be considered that the operations of Dashen Bank will be stable in the future.

Interest Income to Total Income ratio, Interest income is considered as prime source of revenue for banks. The interest income to total income ratio reflects the banks capability in generating income from its lending activities. Interest income includes income on advances, interest on deposits including interest for the balances maintained with the regulatory body (NBE). The average Interest Income to Total Income ratio and standard deviation of Dashen Bank is 57% and 7% respectively. This indicates that in Dashen Bank interest income to total income ratio is appreciable but on the other hand the higher ratio also indicates the greater dependence of the bank on interest income.

Non-interest income to total income ratio registered fluctuating trend throughout the study period. In the beginning of the study period the ratio increased from 34% in 2007 to 37% in 2008. Nevertheless, the ratio decreased from 53% in 2011 to 48% in 2012. In a similar manner the ratio decreased from 47% in 2014 to 44% in 2015. The average non-interest income to total income ratio and standard deviation of Dashen Bank is 43% and 7% respectively. This indicates that in Dashen Bank non-interest income to total income ratio is appreciable and the management of Dashen Bank need to be work more to increase non-interest income.

Similar with previous management opinion, here also the opinion starts with accepting the findings of the study. Specifically in this performance measurement, the management argues with the researcher's conclusion in Operating Profit to Average Working Fund Ratio, Spread ratio, Net Profit to Average Assets Ratio, Interest Income to Total Income ratio and non-interest income to total income ratio with in the study period. And As per the management opinion, Dashen Bank is strongly working to increase fee based income from charges and commissions and foreign exchange activities.

Figure 4.4: Trend Analysis of Earning Quality of Dashen Bank (2006-2015)



Source: Own computation based on financial statements of DB

As discussed earlier in the literature part the quality of earnings is a very important criterion which represents the quality of bank’s profitability and its capability to maintain quality and earn consistently. It primarily determines the profitability of bank and explains its sustainability and growth of future earnings. And we can understand in the above figure 4.4 that Dashen Bank will maintain its sustainability and growth of future earnings.

4.5 Status of Dashen Bank based on Liquidity Criteria

Liquidity is the bank’s capacity to meet its short term obligations as well as loan commitments. Liquidity is most important parameter especially in banking sector as banks are considered as liquidity creator in the market. Therefore, if the liquidity management of a bank is not proper, it can adversely affect the performance of the bank. Lack of liquidity of a bank can also seriously damage the profitability and depositors confidence. Hence increase the likelihood of a bank failure. Managing liquidity is a daily process requiring bank managers to monitor and project cash flows to ensure adequate liquidity is maintained. Therefore, maintaining a balance between short-term assets and short-term liabilities is critical.

National Bank of Ethiopia drowns tight monetary directives on banks’ reserve requirement and liquidity. Reserve requirement was raised from 5% to 10% in July, 2007, was further raised to 15%, and liquidity requirement was also raised from 15% to 25% in April 2008. The following liquidity ratios (a) Liquid Assets to Total Assets (b) Government Securities to Total Assets (c) Liquid

Assets to Demand Deposits (d) Liquid Assets to Total Deposits were calculated for evaluating the Liquidity status of Dashen Bank.

Table 4.5: Descriptive Statistics for Liquidity

Year	LA/TA (%)	G-Sec/TA (%)	LA/DD (%)	LA/TD (%)
2006	25%	0%	111%	31%
2007	28%	0%	123%	34%
2008	37%	0%	180%	47%
2009	48%	0%	215%	59%
2010	43%	11%	194%	52%
2011	42%	11%	183%	53%
2012	33%	16%	131%	41%
2013	31%	19%	142%	38%
2014	30%	19%	142%	37%
2015	22%	23%	116%	28%
Max	48%	23%	215%	59%
Mini	22%	0%	111%	28%
Mean	34%	10%	154%	42%
SD	0.08	0.09	0.36	0.10

Source: Own computation based on financial statements of DB

Table 4.5 clearly shows that the **Liquid Assets to Total Assets Ratio** measures the liquidity available to the depositors of Dashen Bank. This ratio registered fluctuating trend during the entire study. The average liquid assets to total assets ratio remained 34% and standard deviation is 8%. The lowest ratio was found in the year 2015 being 22% as on one hand the amount of liquid assets decreased whereas on the other hand the amount of total assets increased. The highest liquid assets to total assets ratio is found in the year 2009 being 48%. This revealing that Dashen Bank is still in a better shape of liquidity and this may be considered that the operation of Dashen Bank will be stable in the future.

Based on the data collected from unstructured interview, the opinion of the management of Dashen Bank related with computed liquidity ratios indicate that the decline in liquid asset proportion from total assets of the bank is made intentionally for enhancement of returns on excessive assets held with smaller return rate and in parallel, the bank also considers maintaining the required liquidity.

Government Securities to Total Assets Ratio measures the amount of risk free liquid assets invested by Dashen Bank in government securities as a percentage of the total assets held by Dashen Bank. Government securities to total assets ratio registered 0% for the first four years of the study period while afterwards it depicts increasing trend for the entire study period. The highest

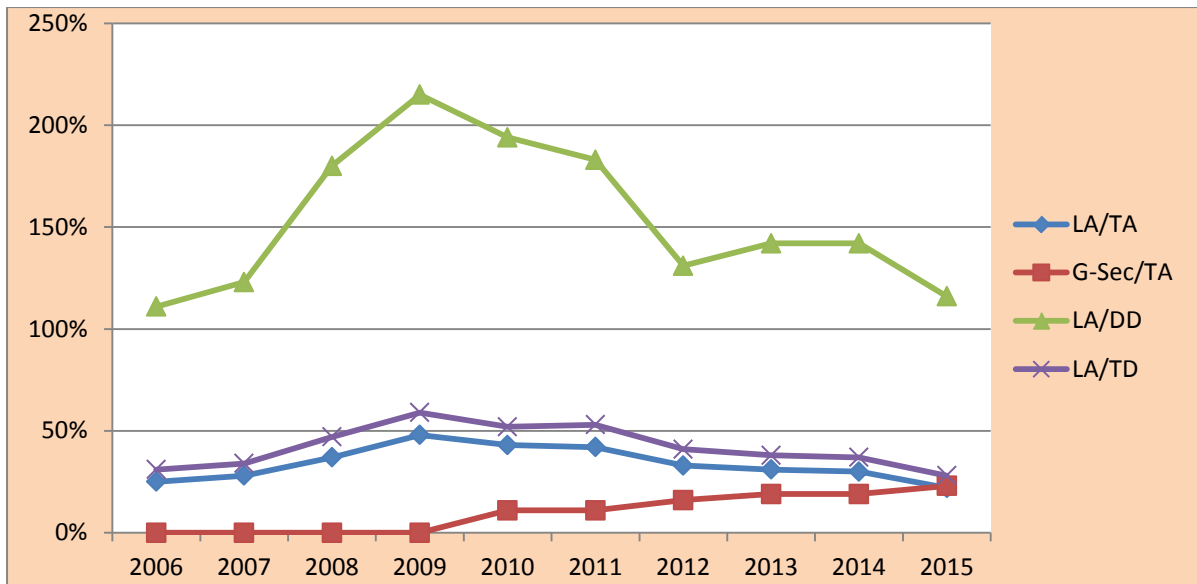
growth rate is registered in the year 2015 being 23%. The average government securities to total assets ratio remained 10% and standard deviation 9%.

Liquid Assets to Demand Deposits ratio reflects the ability of Dashen Bank to respect the demand from depositors during a particular year. In order to provide higher liquidity for depositors, Dashen Bank has to invest these funds in highly liquid form. It is calculated by dividing the liquid assets with total Demand deposits. The ratio of Liquid assets to Demand deposits shows an increasing trend since 2006 up to 2009 and a decreasing trend since 2010 after National Bank of Ethiopia (NBE) has issued directive No. (MFA/NBEBILLS/001/2011) which requires all private commercial banks to purchase NBE bills based on their fresh loan disbursement. The highest ratio was found in 2009 that was 215% because in this year the amount of liquid assets was quiet good throughout the study period. The average Liquid Assets to demand Deposits ratio remained 154% and standard deviation 36%.

Liquid Assets to Total Deposits measures the liquidity available to the deposits of Dashen Bank. The high ratio indicates the conserving investment policy of Dashen Bank and getting low risk and low return. The average ratio of Dashen Bank from 2006 to 2015 is 42% and standard aviation is 10%.

As per the above results during 2006-2015 Dashen Bank can meet any sudden withdrawal measured by the share of most sensitive liability, demand deposit, and its liquid asset. It ranges from 111% to 215% of demand deposit. The Liquid Assets to Total Assets ratio for its account for more than 34%, revealing that Dashen Bank is still in a better shape of liquidity and this may be considered that the operation of Dashen Bank will be stable in the future. The Liquid Assets to Total Deposits ratios, which enable Dashen Bank to cover unexpected deposit withdrawals, because it is above the regulatory requirement of 25%.

Figure 4.5: Trend Analysis of Liquidity Status of Dashen Bank (2006-2015)



Source: Own computation based on financial statements of DB

In the literature part we discussed that liquidity is the bank's capacity to meet its short term obligations as well as loan commitments. Liquidity is most important parameter especially in banking sector as banks are considered as liquidity creator in the market. Therefore, if the liquidity management of a bank is not proper, it can adversely affect the performance of the banks Ramchandram & Hanmugam (2012). Thus the liquidity performance indicator i.e. LATA ratio, G-Sec/TA ratio, LA/DD ratio, and LA/TD ratio in the above figure 4.5 shows that Dashen Bank's ability to pay immediate its short-term obligations by using the most liquid assets.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION

This chapter deals with the summary, conclusions and recommendations based on the findings of the study. Accordingly this chapter is organized into three sub-sections. Section 5.1 presents the summary; Section 5.2 presents conclusions and section 5.3 presents the recommendations.

5.1 Summary

This study aims to evaluate the financial performance of Dashen Bank using a CAMEL model. CAMEL model is basically an approach widely used to measure the performance of banking unit in and outside Ethiopia. This model measures the performance of financial institution especially banks, from all the important parameter like Capital Adequacy, Assets Quality, Management Efficiency, Earning Quality and Liquidity. The study was mainly focused on historical data, which is based on an analysis of previous year financial statements; it incorporates both primary and secondary data. Secondary data related to 10 years (2006 – 2015) were used to calculate 20 key financial ratios related to CAMEL Model. On the other hand primary data were data related with the opinion of top management regarding the outcomes of computed ratio. This study used a descriptive financial ratio analysis to measure, describe and analyse the performance of Dashen Bank during the period 2006-2015. Statistical tools like average and standard deviation were also calculated.

5.2 Conclusions

Dashen Bank has managed its capital adequacy ratio well above the minimum standard of 12% fixed by National Bank of Ethiopia as well as 8% under Basel II. The overall state of capital adequacy of Dashen Bank was satisfactory in terms of capital adequacy ratio but the average debt equity ratio of 9.2 times disclose that the bank was not able to generate good proportion of debt equity ratio to beat its obligations and to that extent the bank may not be considered as solvent. However as per the management opinion increasing in debt proportion from equity of the bank is made intentionally because the money they borrow is also the money they lend. Therefore it is logical that Dashen Bank has more of this product on hand and deposit mobilization remained the primary focus with special emphasis on low cost and sustainable sources of funding.

Overall it can be said that the assets quality of Dashen Bank was satisfactory in terms of Net NPA to Net Advances Ratio, Gross NPA to Net Advances Ratio and Net NPA to total asset ratio as not only the amount of gross NPA was low but also the amount of Net NPA. This indicates that the

management of Dashen Bank is effective in providing loans to the customers. On the other hand total investments to total assets were unsatisfactory being as average of 10% of its assets in investments and this indicates the bank invested far below the generally accepted standards of its assets in investment. In general the results indicate that the asset quality of Dashen Bank has shown improvement from 2006 onwards with average NPA ratio of below 5% set by NBE directive no.SBB/43/2008.

The average earning per employee ratio of Birr 140,159.49 indicates that the bank is earning Birr 140,159.49 per employee and this is continuously improved. And also the average business per employee ratio was Birr 7,287,952.63, indicates the efficiency of bank in terms of doing business with lesser number of employees. Thus the overall state of management efficiency was also good.

The average operating profit to working fund ratio of 5% indicates that the profitability of bank was satisfactory. The average spread of 3% indicates that the earning quality of Dashen Bank is quite good. Net Profit to Average Assets Ratio is a key profitability ratio for bank indicates that the Dashen Bank's earnings are good. Average Interest Income to Total Income ratio of 57% indicates that in Dashen Bank interest income to total income ratio is appreciable but on the other hand the higher ratio also indicates the greater dependence of the bank on interest income. The average non-interest income to total Income ratio of 43% indicate that in Dashen Bank non-interest income to total income ratio is also appreciable. Thus, conclude it can be said that the overall earning Quality of Dashen Bank was satisfactory.

The Liquid Assets to Total Assets ratio for bank account for more than 34 percent, revealing that the banks are still in a better shape of liquidity and this may be considered that the operation of banks will be stable in the future. The Liquid Assets to Total Deposits ratios, which enable Dashen Bank to cover unexpected deposit withdrawals, because it is above the regulatory requirement 25%. And it can be conclude that the overall state of liquidity was satisfactory.

5.3 Recommendations

In light of the major finding and conclusion obtained from the results, the following recommendations were made:

- According to the results, Dashen Bank has managed its capital adequacy ratio well above the minimum standard of 12% fixed by National Bank of Ethiopia as well as 8% set by Basel II;

therefore, Dashen Bank should maintain or increase its capital adequacy ratio (CAR) to enhance the safety of its banking system, and the safety to depositors.

- The debt to equity ratio of Dashen Bank was not good to beat its obligations. This implies that the bank was dependent on funds from creditors of the company; this is very risky for the overall sustainability of the bank. Therefore, the bank's management has to work to maximize the amount of owners' equity, and has to search for other sources so that the performance of the bank can be improved.

Recommendation for future studies

- Further studies could use different ratios to represent each factor of CAMEL, for example, the shareholder's equity to assets ratio could represent the capital adequacy instead of the risk-weighted capital adequacy ratio. Also, more ratios could be included to represent each factor of CAMEL. Further studies also could extend the period of data observed and also change the frequency of data used and this might offer a different result. Accordingly, in the further research one may need to consider this examination as a source of perspective to extend the scope and enhance the consequences of the exploration.

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APPENDIX

Appendix A

DASHEN BANK S.C. BALANCE SHEET AT 30 JUNE,

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
ASSETS										
Cash and balances with other banks										
Cash on hand	120,447,048	150,166,259	268,239,923	370,494,011	487,671,113	772,178,086	900,111,423	1,119,699,954	1,424,518,771	1,568,430,690
Deposits with local commercial banks	1,374,628	13,080,857	45,708,057	232,367,477	261,198,947	290,336,840	386,538,517	188,084,289	331,468,130	227,231,733
Deposits with foreign banks	546,014,884	646,460,130	828,826,460	658,306,784	2,280,213,906	2,209,547,284	2,241,368,284	2,517,166,909	2,304,804,350	1,506,365,946
Deposit with National Bank of Ethiopia	482,049,266	861,184,640	1,772,733,544	3,441,643,302	2,226,273,909	2,953,682,255	2,246,599,600	2,235,983,458	2,482,026,391	2,227,883,142
	1,149,885,826	1,670,891,886	2,915,507,984	4,702,811,574	5,255,357,875	6,225,744,465	5,774,617,824	6,060,934,610	6,542,817,642	5,529,911,511
Investments	27,801,795	28,385,795	28,385,795	28,385,795	1,426,215,795	1,697,875,795	2,857,028,995	3,754,776,522	4,120,435,322	5,858,682,322
Items in course of collection from other banks	153,864,230	234,986,600	274,573,670	343,711,429	305,716,129	52,533,612	59,446,975	73,305,055	109,295,635	85,063,750
Loans and advances to customers	3,080,263,248	3,889,003,611	4,291,704,476	4,349,249,994	4,938,736,202	6,093,873,109	7,949,369,597	8,663,249,398	9,429,628,139	11,333,085,838
Other assets	74,185,344	120,366,856	114,907,333	198,683,752	262,477,512	395,641,060	617,520,711	876,011,855	1,161,080,528	1,274,607,645
Fixed assets	60,012,535	97,279,472	93,848,772	109,740,897	164,882,525	194,127,115	262,058,217	318,897,327	598,944,797	682,534,450
TOTAL ASSETS	4,546,012,978	6,040,914,220	7,718,928,030	9,732,583,441	12,353,386,038	14,659,795,156	17,520,042,319	19,747,174,767	21,962,202,063	24,763,885,516
LIABILITIES										
Customers' deposits										
Demand deposits	1,039,091,412	1,360,926,459	1,616,812,548	2,189,749,336	2,715,397,280	3,408,063,676	4,392,717,362	4,265,723,242	4,602,875,760	4,761,552,597
Saving deposits	2,343,244,480	2,842,853,597	3,841,932,645	5,033,506,814	6,730,372,408	7,797,453,958	8,888,844,618	10,577,451,364	11,906,048,899	13,594,967,837
Fixed deposits	309,267,163	656,767,450	692,776,352	701,954,139	698,780,088	635,721,100	784,038,019	1,008,089,811	1,172,418,507	1,457,587,416
	3,691,603,055	4,860,547,506	6,151,521,545	7,925,210,289	10,144,549,776	11,841,238,734	14,065,599,999	15,851,264,417	17,681,343,166	19,814,107,850
Margin held on letters of credit	136,392,485	145,500,202	153,347,720	159,639,855	231,437,596	384,572,562	564,307,257	765,409,661	627,984,326	807,305,058
Other liabilities	280,367,023	419,230,188	589,932,767	636,426,571	719,834,298	858,358,568	820,990,530	878,624,169	810,143,934	983,902,902
Provision for taxation	51,777,613	71,164,202	93,516,341	102,611,999	134,216,737	179,223,021	241,250,838	206,177,824	245,105,441	234,675,726
TOTAL LIABILITIES	4,160,140,176	5,496,442,098	6,988,318,373	8,823,888,714	11,230,038,407	13,263,392,885	15,692,148,624	17,701,476,071	19,364,576,867	21,839,991,536
SHAREHOLDERS' FUNDS										
Share capital	156,190,000	282,210,000	-	-	591,860,000	698,709,000	703,789,000	737,214,000	1,064,118,000	1,238,691,000
Legal reserve	89,973,776	136,973,606	453,993,000	528,512,000	340,216,401	452,880,242	615,883,272	767,572,368	945,693,438	1,127,976,930
General reserve	64,709,026	64,717,354	196,737,990	259,207,089	-	-	-	-	-	-
Special reserve -	-	-	-	-	-	-	-	-	-	10,468,505
Retained earnings	75,000,000	60,571,162	79,878,667	120,975,638	191,271,230	244,813,029	508,221,423	540,912,328	587,813,758	546,757,545
	385,872,802	544,472,122	730,609,657	908,694,727	1,123,347,631	1,396,402,271	1,827,893,695	2,045,698,696	2,597,625,196	2,923,893,980
TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	4,546,012,978	6,040,914,220	7,718,928,030	9,732,583,441	12,353,386,038	14,659,795,156	17,520,042,319	19,747,174,767	21,962,202,063	24,763,885,516

Appendix B

DASHEN BANK S.C. PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 30 JUNE,

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
INCOME										
Interest income	241,893,298	319,927,692	420,074,747	434,777,119	482,655,855	603,677,566	897,730,373	1,020,736,209	1,140,821,933	1,414,219,716
Less :interest expense	-66,887,818	-92,511,233	-162,148,506	-199,447,691	-248,187,407	-325,272,464	-410,231,198	-489,876,882	-573,158,251	-667,291,082
Net interest income	175,005,480	227,416,459	257,926,241	235,329,428	234,468,448	278,405,102	487,499,175	530,859,327	567,663,682	746,928,634
Other income	124,730,354	164,825,978	249,753,411	320,793,006	481,674,059	678,512,220	827,626,835	796,053,367	1,004,172,948	1,101,051,824
Net operating income	299,735,834	392,242,437	507,679,652	556,122,434	716,142,507	956,917,322	1,315,126,010	1,326,912,694	1,571,836,630	1,847,980,458
Provision for doubtful loans and advances	-13,560,113	-7,849,833	-18,248,030	-2,174,504	-11,361,495	-17,060,555	-19,452,480	-17,767,855	-	-13,329,738
Net interest and other income after provision for doubtful loans and advances	286,175,721	384,392,604	489,431,622	553,947,930	704,781,012	939,856,767	1,295,673,530	1,309,144,839	1,571,836,630	1,834,650,720
EXPENSES										
Salaries and benefits	39,917,551	51,802,159	72,533,093	97,478,289	115,355,296	144,713,826	189,955,966	255,387,329	313,540,471	501,119,795
Rent	12,452,314	17,525,028	20,199,921	22,069,236	24,547,493	29,016,388	37,176,369	49,552,243	64,356,020	93,660,362
General and administrative	32,841,576	39,267,852	44,616,595	56,567,458	75,437,243	98,358,332	117,483,411	126,019,606	148,130,219	179,697,122
Depreciation	14,775,353	15,841,137	18,657,282	24,182,337	29,990,339	36,837,183	57,028,009	64,344,531	87,242,126	95,301,630
Directors' remuneration	698,769	698,769	707,876	1,005,615	1,006,154	752,656	434,120	516,922	503,077	544,615
Audit fee and expenses	122,757	110,000	146,500	156,600	190,500	300,000	332,695	390,000	475,000	517,500
	100,808,320	125,244,945	156,861,267	201,459,535	246,527,025	309,978,385	402,410,570	496,210,631	614,246,913	870,841,024
Profit before taxation	185,367,401	259,147,659	332,570,355	352,488,395	458,253,987	629,878,382	893,262,960	812,934,208	957,589,717	963,809,696
Provision for taxation	-51,777,613	-71,159,443	-93,515,285	-102,611,999	-134,216,737	-179,223,021	-241,250,838	-206,177,824	-245,105,441	-234,675,726
Net profit after taxation	133,589,788	187,988,216	239,055,070	249,876,396	324,037,250	450,655,361	652,012,122	606,756,384	712,484,276	729,133,970
Legal reserve	-33,397,447	-46,997,054	-59,763,768	-62,469,099	-81,009,312	-112,663,840	-163,003,030	-151,689,096	-178,121,069	-182,283,493
Net profit after tax and legal reserve	100,192,341	140,991,162	179,291,302	187,407,297	243,027,938	337,991,521	489,009,092	455,067,288	534,363,207	546,850,477
Earnings per share of Birr	956	1,001	846	550	609	753	926	823	670	589