CREDIT MONITORING ACTIVITY AND ASSET QUALITY IN THE CASE OF Dashen Bank

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Acknowledgement

Ensuring the renaissance is a challenge full exercise, because, I believe, only education cannot help to restore our historical greatness and our ancestor's wisdom but also those enlightened minds. We lost that accumulated wisdom and we have been learning a different outlook of reality. These learning help us only to build a different reality not our original "reason of being", and yet we haven't been like the world despite the education. Indeed, education is a means to empowerment. I am a live witness for seeing nobody being transformed to somebody. It is worth noting, indeed, that I will be who I should be only when who I am is determined to aspire for the truth based on who I have been, and be endowed with wisdom and blessed.

For the journey just started, knowledge is the only source of power to search for the directions to move forward. I am really learning from many but only few have meaningful contributions. It is a privilege to extend my gratitude to Dr.Abebe Yitayew for his sincere and brotherly academic advisory services and extended supports. Lakew Alemu! - My dear friend, thank you for supporting me by availing all the materials I needed.

Oh my God! My dictionary lacks the words I need to thank my lovely wife, Hanna Lakew, and my adorable son, Adera Yihnalem, for supporting me in every beat of my life exercises..

God bless Ethiopia, our elders….

Abstract

This research paper presents assessment of credit monitoring and asset quality in the case of Dashen Bank. The study was conducted on the basis of opinion survey collected from randomly selected credit officers working in Dashen Bank through interview. The collected data were analyzed using descriptive qualitative research to assess and describe the relationship of credit monitoring and asset quality in banks operating in Ethiopia, particularly in Dashen Bank Share Company. The research also aimed at assessing the factors that affect asset quality and areas of improvement in the credit monitoring activity. The results from the analysis has emphasized on four findings. First, credit monitoring activity and asset quality are related and the relevance of their relationship is significant. Second, credit monitoring activity and asset quality are affected by credit governance, collateral position of borrowers, credit culture, market condition, economic conditions, finical conditions and the monetary policy of National Bank of Ethiopia. The economic condition, market condition, monetary policy and credit culture are external factors that significantly affect credit monitoring activity while the credit governance, collateral position and financial condition are internal factors that significantly affect asset quality. But the later factors are also affected by the credit monitoring activity. Finally, it was also recommended that the credit deployment plan and loan portfolio management, the credit appraisal and approval function and the performance evaluation and monitoring activity should be regularly reviewed in line with all relevant internal and external factors to ensure prevalence of enhanced credit monitoring activity and asset quality.

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Chapter One

1. Introduction

Banking is an intermediary financial service business that undertakes to engage in dealing with others money. Meaning, it is a business committed to create economic values by connecting the “have” and the “have not” in the business environment. In any business environment, there are parties that have business ideas, better know-how of investment opportunities or entrepreneurial capacities and others those have the financial resource but not the formers. For the sake of understanding and throughout this paper, the parties with business idea, better know-how of investment opportunities or the entrepreneurial capacity will be referred as entrepreneurs while the later will be referred as investors. The entrepreneurs have the business-expertise resources while the inventors have the financial resources. When these parties have the chance to come together and the trust to work together, they can create economic value that makes both of them better off.

Entrepreneurs are always looking for the financial resources to convert or transform their business-expertise resources into economic values. The source of the business-expertise resource may be an already established operational business undertaking or a new project idea. As the financial resources are critical inputs to facilitate the transformation process by integrating and coordinating the business-expertise resources and other important entrepreneurial assets and processes through acquisition or internal development, the entrepreneurs are forced to consider options of partnering with investors if the start-up capital or financial resources they have is not adequate enough to support their objective to create economic value. However, when the operating market environment is not well structured in a way that well organized information of knowledge base is available to access and evaluate the alternative sources and status of the business-expertise resources and financial resources, the cost of searching for better finance partners or investors is high or is impossible. This situation makes the process of rational financing decisions difficult; or it leads to sub-optimal financing decision otherwise.

On the other hand, investors, who have the financial resource, look for investment alternatives or business undertakings that generate reasonable amount of economic values with acceptable level of risk for their money. The primary objective of investors is to have a maximum return for a minimum acceptable or manageable risk on their investment. However, investors do not have a mechanism or technical skill to guarantee or ensure achievement of this objective. Owing to this, investors may prefer to invest in risk free investment alternatives.

So, the major problem for these parties to come together and mobilize their resources to create better economic value is the difficulty to establish a minimum business trust as between them to organize the resources, create better economic value and fairly share the benefits and risks thereof. Factors that affect the potential partnership arrangement, organization of resources or incorporation of the two parties are:-

- Investors do not have the technical expertise to evaluate the feasibility and real value of the investment opportunities of business-expertise resources.
- Entrepreneurs may take unnecessary risks on the investor's money; moral hazard or adverse behaviors may prevail.
- The operating market environment may be unpredictable due to market inefficiency and information asymmetry so that the parties could not make optimal investment and financing decisions.

This, therefore, creates a gap in the value chain that delivers economic value by transforming business-expertise resources and financial resources. Hence, the need for an intermediary actor or operator that specialized in bridging the gap between the entrepreneurs and investors in an efficient and effective way is imperative. This specialized intermediating service is termed as banking. Banking is basically an intermediary business engagement with a primary responsibility of facilitating the saving functions and investment functions in an economy.

The public deposited its saving fund to banks sacrificing the current consumption until it identifies an investment alternative that better enhances its future consumption holding its ultimate right to withdraw the balance otherwise. This condition forces banks to exercise the following;

- Maintain a balanced portfolio of deposits to ensure continuous development of interest earning assets by interest bearing liabilities to generate optimal marginal revenues without affecting its liquidity position.
- Maintain manageable loan portfolio mix that enhances the marginal revenue without affecting its asset quality.
- Matching its resource portfolio to its loan portfolio and contain the potential risk.

Commercial banks, in Ethiopia, are incorporated in the form of Share Company under banking business and supervision proclamation issued by the National Bank of Ethiopia. Banking business is allowed only to Ethiopian citizens according to the commercial code of Ethiopia. All banks are licensed and supervised by the directives of the supervising body, here after called NBE.

Cognizant to the sensitivity of the finance sector, particularly the banking business, NBE has been organized as a supervising body by the ministry of finance and economy to direct, monitor and control the banking business with a separate banking business proclamation. It also issues various directives relevant to the sector to ensure compliance in promoting and protecting the public interest, as the banking business plays a vital role in the economy. In so doing, NBE supervises the establishment and licensing of banks in operating banking business in Ethiopia. As such, it monitors and controls regularly the credit management functions of banks, because this activity is the core banking function that drives the lion share of growth and risk of banks.

NBE directs monitors and controls the credit management activities of commercial banks with periodical inspection, examination and review techniques. It appraises and evaluates the performance of banks regularly to ensure compliance to the relevant

directives. The main directive instruments of NBE in monitoring the credit management activities of banks are the following

- Regular Loan status review requirements by the loan review committee of the board of directors of the respective commercial bank.
- Requirement for establishment of hierarchical loan approval committee and setting discretionary limit for the respective committee.
- Setting single borrower limit to the extent of 25% of the total capital of the respective commercial bank.
- Setting single bower limit to anyone of the related party and aggregate borrower limit to all related party directly or indirectly to be to the extent of 15% and 35% of the total capital of the respective commercial bank respectively.
- Setting loan portfolio mix to term structure of loans and advance; where portfolio mix of short term loan to be not less than 40% of the total loans and advance at any one time.
- Setting portfolio mix to type of credit facilities; where overdraft loans and revolving credit facilities not to be greater than 25% and 10% of the total loans and advance respectively at any time.
- Setting limit to non-performing loans position not to be greater than 5% of the total loans and advance at any time.

The purpose of these directives is monitoring the risk that could arise out of concentration or poor credit management function; and thereby ensure prevalence of the minimum acceptable asset quality so as to promote and protect the interests of relevant stakeholder's i.e., shareholders, corporate depositors, international business partners and the government.

1.1. General Background of Bank Credit

Bank Credit is a core commercial banking function that deals with the following main activities:-

- Plan loanable fund based on the available financial resource raised through equity capital and deposits accepted from the society.
- Identify and determine priority business areas or industrial sectors to which financial assistance can be extended in the form of loan to the level of the planned loanable fund based on the economic policies and strategic directions of the bank; crafted in line with the NBE directives
- Plan and establish credit terms for the respective priority business areas or industrial sectors that have effective demand for loan finance.
- Monitor and control the established credit terms
    - Evaluate and examine the established credit terms
    - Plan and implement loan workout programs and debt recovery
    - Plan and implement debt provisioning and write-off
    - Plan and implement credit risk management functions
    - Ensure due diligence and compliance to NBE directives issued to monitor and control the credit function of commercial banks.

Loan is one, and major, of the banks valuable earning assets. Banks are a highly leveraged business undertakings that manage huge financial resources mobilized from the public in the form of equity capital and deposit. The public deposits its saving fund at banks because banks offer saving account as a relatively low risk investment alternatives. Banks should, therefore, manage this public fund prudently in a way that ensures the trust, in administering the fund with due care and allowing withdrawal of same on demand for the depositors and enhancing the firm value for shareholders, in delivering of the promised return within the agreed time period as per the terms and conditions stated and stipulated in their contract.

1.2. Background of the study

Dashen Bank sc is one of, and the second next to Awash Internal bank in establishment, the private commercial banks licensed to operate banking business in Ethiopia. As banking is a sensitive industry, because of the peculiar natures of the

financial sector, it is highly regulated by NBE being subject to a separate formation banking business proclamation unlike to other industries which are formed according to the commercial code of Ethiopia.NBE has issued different directives relevant to the banking industry in response to the economic and market conditions that need to account for domestic and international factors of economic, political-legal, socio-cultural and technological phenomenon.

1.3. Statements of the problem

Banking is a highly leveraged financial intermediation business because commercial banks are mainly engaged in extending loans and advance from the fund mobilized from the public in the form of deposit. As such, the credit function involves credit risk that could ultimately affect the financial stability as well as profitability of banks if systematic management of same is not in place. Theoretically, credit risk occurs when either a good borrower is rejected or a bad borrower is accepted. Both situations lead to loss of income due to rejecting a good borrower or sustaining loss because of credit default due to accepting a bad borrower. Credit default that results from accepting a bad borrower or otherwise reflects the asset quality problem of banks. Hence, managing credit risk is imperative for banks to ensure sustainability of the business by enhancing the interests of the depositors, the shareholders and other relevant stakeholders.

Empirical evidences indicated that national banks of many countries, as a supervising body, are vested with the responsibility to regulate the credit monitoring activity of commercial banks to ensure the interests of depositors, shareholders and other relevant stakeholders are promoted. The national banks are stated to have issued a directive on asset classification and provisioning to regulate the respective credit monitoring activity and thereby ensure the required asset quality. For this, the empirical evidences collected primary data and secondary data of financial and economic factors related to credit monitoring activity and asset quality from credit experts, credit performance reports direct from sample banks and credit rating agencies. Credit scoring which is used to determine probability of credit default based on financial and economic factors was a

proxy to credit monitoring activity. The level of non-performing loans (NPLs) which is determined as percentage of outstanding balance of NPLs as outstanding balance of total loans was used as proxy to measure asset quality. The collected data that was analyzed using quantitative credit scoring model indicated that lower value of credit scoring leads to higher probability of credit default which in turn leads to lower asset quality. This implied that credit monitoring activity affects asset quality of banks. However, most of the empirical evidences were conducted on relatively well-structured economies, efficient markets, technologically supported credit management environments, deregulated financial institutions and better legal enforcements. In effect, they did lack to assess the impact of credit monitoring activity on asset quality based on qualitative factors.

Similarly, national bank of Ethiopia (NBE) claimed that some private commercial banks have not been observed to exhibit the required asset quality target of 5% measured by NPL position because of lack of implementation of prudent credit monitoring practice that is comprised of the asset classification and provisioning directive.

However, Dashen Bank stated that it is hardly possible to attribute the asset quality problem to the prevailing credit monitoring activity given the overall economic and market condition and other business contexts of the Ethiopian banking industry.

If NBE's claim on impact of credit monitoring activity on asset quality is counter-argued by Dashen Bank otherwise, the impact of credit monitoring activity on asset quality of banks should be further studied to understand the nature and impact of the relationship. In effect, the central question to address in this study is, **does credit monitoring activity have impact on asset quality**?

Therefore, the purpose of this research paper is to assess and describe the relationship of credit monitoring activity and asset quality at Dashen Bank.

1.4. Research questions

In this paper, the following research questions shall be addressed in this paper.

I. Main research question

- Is credit monitoring activity and asset quality related?

II. Subsidiary research questions

- What are the factors that affect credit monitoring activity?
- What are the factors that affect asset quality?
- How are the factors that affect credit monitoring activity related to the factors that affect asset quality?
- What could be done to improve credit monitoring activity so that asset quality will be improved too?

1.5. Scope and limitations of the Research

The scope of the research paper is assessment and description of the relationship of credit monitoring activity and asset quality in Dashen Bank. And as the study considers only Dashen Bank, the result of the research paper may not be generalized to other commercial banks operating in Ethiopia.

1.6. Objectives of the Research

1.6.1. General objectives

- To assess and describe the relationship of credit monitoring activity and asset quality in the case of Dashen Bank.

1.6.2. Specific objectives

- To assess and describe the factors that affect credit monitoring activity in Dashen Bank.
- To assess and describe the factors that affect asset quality in Dashen Bank.

- To assess and describe how the factors that affect credit monitoring activity are related to the factors that affect asset quality in Dashen Bank.
- To assess and describe what could be done to improve the credit monitoring activity at Dashen Bank so that asset quality will be improved too.

1.7. Rationale and Significance of the Research

The main rationales for undertaking the research on this area are:-

I. Inadequacy of research engagements in this problem area
II. Growing issue conflicts between NBE and commercial banks in the area
III. Pervasiveness of the problem and economic impacts of the industry
IV. Personal motives for career development in the area

Despite its limitations on generilizeability, it will have the following significances.

- Provide highlights on areas, to policy makers at Dashen Bank, to improve credit monitoring practice and asset quality.
- Provide clues on pertinent problem areas to Researchers interested in studying similar problems in the Ethiopian banking business environment

1.8. Organization of the paper

- Chapter one: Introduction
- Chapter two: Literature Review
- Chapter three: Research Methodology
- Chapter four: Findings and discussion
- Chapter five: Conclusion and Recommendation

Chapter Two

Literature review

2. Introduction

Banking is a financial intermediary business engaged in dealing on others money. A financial intermediary is an institution that acts as an intermediary(for two parties with a specified inter-related demand) by matching the supply and demand of funds (Beck, 2001).It is presumed that banks are licensed to engage in rendering financial service with major responsibility of facilitating the saving and investment function within the economy or jurisdiction they are operating. Heffernan (1996) defined banks as intermediaries between depositors and borrowers in an economy which are distinguished from other types of financial firms by offering deposit and loan products. This perspective is meant for addressing the notion that banks are playing a vital role in linking the instrumental activities that enhance the improvement of an economy by extending financial assistance or service for those committed in creating production capacity through development of investment projects that require financial resources which is expected to be mobilized through accepting deposits from the public, both private and government entities.Bossone(2001) agrees arguing that banks are special intermediaries because of their unique capacity to finance production by lending their own debt to agents willing to accept it and use it as money.

Commercial banks are the dominant financial institutions in most economies (Rose, 1997).The aggregate demand is the base for measuring the performance of an economy through evaluating the efficiency and effectiveness of the respective macro-economic policy which is the integrated result of the monetary policy and fiscal policy; both intended to enhance the GDP of an economy by improving the national production capacity through development of infrastructure that enable optimal utilization of the national resources by application of the available technologies; which is created by the physical resources, financial resources, human resources and expertise. It is inarguable

that government is the ultimate responsible organ that manages the economy to satisfy the aggregate demand through mobilization of the available capital inputs or resources; however all the resources necessary for the economy are not under its direct control .The government revenue base may not be adequate enough to produce the gross domestic product that matches the aggregate demand. Hence, involvement of the private sector is imperative to this effect. And, the fiscal policy by itself is not sufficient instrument to manage the economy so the monetary policy is a complementary and/or supplementary instrument that monitors the supply of money required for the economy to function properly; lubricating the economic function.

Grueining and Brathovic (2003), argue that the commercial banks play a critical role, especially, to emerging economies where most borrowers have no access capital markets. Well functioning commercial banks accelerate economic growth, while poorly functioning banks are an impediment to economic progress and aggravate poverty (Barth et.al, 2001; Klan and Senhadji, 2001) in Richard (2011).This implies that commercial banks play instrumental role and facilitate the enhancement in efficiency and effectiveness of the macro-economic policy by mobilizing financial resources from the public at large and extend financial assistance in the form of loan to the different private sectors and government enterprises; active economic operators. Here, it is understood that banks accept deposits as products of investment opportunity for the public by offering relatively risk free returns and extend loan products for part of the public with well-designed investment projects or business ideas at a relatively higher return, the margin being premium for taking risks on public's money and value for intermediation transaction costs incurred because of its engagement.

Lending is not an easy task for banks because it creates a big problem which is called non-performing loans. Due to the nature of their business, commercial banks expose themselves to the risk of default from borrowers (Waweru and kalami, 2009).This is to imply that when commercial banks extend credit to borrowers in the form of investment loan to finance new projects and working capital to finance the operational expenditures

and revenue expenditures of an already established businesses, there is no pre-defined guarantee that the projects and the businesses will perform as expected; except in cases where there is established credit guarantee scheme arranged by matching grant guarantee funds like USAID guarantee and IFC guarantee.

According to Alton and Hanzen (2001) non-performing loans are those loans which are ninety days or more past due or no longer accruing interest. Bank credits can be extended either in the form of term loan or open credits. In the case of term loans, a fixed sum of money is advanced for a fixed period of time with arrangement of repaying the amount with installments within the loan period on a monthly, bi-monthly, quarterly, semi-annually, annually or lump sum mode of payment. For instance, if Birr X is advanced to a borrower where the sum is expected to be repaid over a period of one year with equal monthly installments of Birr Y including interest the monthly installment should be effected without failure when due. If the borrower fails to effect the installment when due and if this amount remains outstanding in arrear for more than ninety days, the whole outstanding loan balance turns out to be non-performing loan. On the other hand, when open credit are fully utilized to the extent of the pre-established limit or the utilized limit is expired wherein interest no longer accrues for the credit line being more than ninety days past due, the outstanding balance will turn out to be non-performing loan(NBE directive NO SBB/43/2008).

In connection, Hennie (2003) agrees arguing that non-performing loans are those loans which are not generating income in the sense that cash from financing activities is not supporting operating activities and investment activities as it is expected to be. Meaning, the fund generated from borrowing is not efficiently and effectively applied to enhance the financing activities for redemption of debts, investment activities for buying of more productive assets and operating activities for enhancement of working capital and revenue. This is further supported by Caprio and kingebiel(1996),cited in Fofack(2005),who defined non-performing loans as those loans which for a relatively long period of time do not generate income, the principal and or interest on these loans

have been left unpaid for at least ninety days. Non-performing loans are also commonly described as loans in arrears for at least ninety days; they are loans that are ninety days or more days delinquent in payment of interest and/or principal.

As banking is a highly leveraged financial intermediation service and the credit service makes up the majority of the business function, optimizing financial stability and profitability of banks is imperative to ensure sustainability of the business. In so doing, monitoring the credit function for the asset quality of banks to be maintained is important.

The literature review in this paper addresses the theoretical considerations and related empirical evidences on credit monitoring and asset quality, factors that affect asset quality and ways of improving credit monitoring on banks.

2.1. Theoretical considerations

2.1.1. Credit monitoring and asset quality

Credit monitoring is a credit operation regulation framework that dictates the relationship of the lending bank and the borrower regarding the terms of trade at the side of the bank and the borrower respectively. The terms of trade between the bank and the borrowers is regulated through the debt contract. The contract basically contains information about the magnitude of loan, purpose of the loan, interest rate applied on the loan, maturity of the loan, mode of repayment, type and value of collateral backing the loan, terms of contract amendment and renewal and mode of possible amicable resolutions of credit default case.

The debt contract is thus the core of the bank-borrower relationship in the banking literature. In a full information framework, both parties would specify in the contract every possible future contingency (or state of nature) and their resulting obligations in each of them, including the amount of the repayment or of additional loan, the interest rate change for the next period, any adjustment in the collateral required by the lender, and set of actions required from the borrower. In a multi-period setting, a complete

contingent contract would be very lengthy and could be prohibitively costly. For this reason and because of uncertainty about the future contingencies, debt contracts usually define repayment obligations and collateral for the whole duration of the contract, whereas actions to be undertaken by the borrower are left to its own appreciation (Freixas and Rocher, 1998).It can be impliedly stated that the loan contract is simplified in to three stages:

- The allocation of capital to the new and existing borrowers after detailed appraisal and analysis of the bankability of the envisaged projects or business engagements
- Interim periods during which the loan is renewed, increased or rolled over
- The termination of the contract when deemed necessary

The loan contract to be signed and concluded as between the bank and the borrower is assumed to retain some sort of flexibility in the terms and conditions of the various states of nature while the credit monitoring provides the bank with the ability to influence the actions of the borrower over time. Meaning, the lender retains the ability to terminate the contract and renegotiate-for simplicity, renegotiation is through the possibility of changing interest rates and other credit terms and conditions over time. It is assumed that this ability is limited partially by implicit costs of contract termination, including Institutional and administrative inflexibilities, agency problems and weaknesses in the judicial and law enforcement.

In a credit monitoring framework of information asymmetry **(IMF, WP/05/222)** between lenders and borrowers it is shown that a number of features of the loan contract are central in explaining the nature of the bank monitoring. The features include the progressive evaluation of the quality of borrowers through successive information signals; the backward-looking process of information accumulation and interpretation; the presence of costs of contract termination for the bank; and the implicit commitment of the bank to renew the loan contract over time. Practically, several characteristics of the bank lending processes are shown to emerge under the credit monitoring framework and when the bank needs to commit to borrowers to alleviate problems of asymmetric

information and the presence of high costs of contract termination provide an explanation for the accumulation of non-performing loans on the balance sheets of the bank. And, in an environment with poor information dissemination, high institutional and administrative inflexibilities and agency problems, the credit monitoring framework indicates that costs of contract termination may be so high that:

- Banks may prefer to keep non-performing borrowers on their balance sheets; where this behavior would be amplified if reasons for commitment are non-economic
- These costs explain the preference of banks for borrowers with well-known production functions and little variability in return over time
- The existence of a spread between deposit and lending rate follows from commitment to unpromising borrowers; in effect, the bank may only sustain commitment if it expects excess profit from other borrowers
- It may maintain high interest on promising borrowers, and low interest rates paid to depositors, widening the spread between the two rates

The impact of borrower's information signals on bank lending is examined in a context where information signals are uncorrelated across periods, which prevents the bank from establishing a credit history of its borrowers. The results provide theoretical support to the idea that the bank benefits from repeated lending to borrowers and develops an expertise that allows it to allocate credit more efficiently than in a typical one-period model. The decision of the bank to renew or suspend credit to borrowers can be modeled in a framework established based on an argument that proceeds by analyzing the impact of information on the expected profit to the bank and on credit allocation. As the bank receives information about borrowers, it can sort previously undistinguishable borrowers in to promising and unpromising; and it adjusts its expectations of profit from borrowers based on the accumulated experience gained though out the process.

It can also be stated impliedly, from the afore-mentioned facts, which the monitoring activity consists of the combination of three elements:

- The alertness to information signals
- The interpretation of signals
- The adjustment of incentives

The first two elements correspond to the bank's efforts in reducing the asymmetries of information with the borrower while the third element represents the ability to modify the term of the contract to ensure good performance of the borrowers as stated and stipulated in the contract. Alternatively, monitoring is the process of outcome discovery in which the lender has to monitor the borrower in order to have some indications on the realized returns on the projects and business engagements undertaken. These approaches were reflected in the works of Townsend (1979), Gale and Hellwing (1985) and Williamson (1987) developed in their costly state verification paradigm which assumed that:

- Lenders cannot observe returns on projects or business engagements undertaken by borrowers unless costly audits are performed
- Borrowers, to maximize their returns, may falsify their realized returns in order to lower repayments to the bank, if they can possibly do so.
- Contracts with ex-post asymmetry of information generally specify a high enough penalty to prevent successfully borrows from declaring failed returns
- Audits only take place when cash flows are too low for borrowers to repay principal and interest to the bank, since penalties prevent cheating in all other states of nature.

The credit monitoring is, therefore, a function that manages credit risk caused by changes in credit terms stated and stipulated in the respective credit contract. As such Credit monitoring is an integrated credit function containing a chain of credit activities and processes; which handles a series of tasks meant for ensuring a properly and sustainably functioning credit system. It involves among other things (Tracy and Carrey 1998, Basel 1999):

- Frequent contact with borrowers

- Creating an environment that the bank can be seen as a solver of problems and trusted advisor to the borrower
- Develop the culture of being supportive to borrowers whenever they are in business difficulties and striving to deal with the situation
- Attending the flow of the borrower's business transactions through the bank's account
- Regular review of borrowers financial reports as well as on-site visits by bank's credit officers
- Updating borrower's credit profiles and periodically reviewing the borrower's ratings assigned at the time the credit was granted.

The credit monitoring function is presumed to encompass two major activities: credit appraisal which ranges from customer loan application or proposal analysis and evaluation to credit approval, and credit inspection which ranges from evaluation of the credit approval implementation to controlling of the credit terms and conditions which are likely to be captured in the loan contract. Generally, an effective credit monitoring system is supposed to include the following pragmatic measures (Seppala, 2000):

- Ensure that the bank has full understanding of the various business proclamations or commercial codes, the by-laws and the legal and regulatory framework of the economic environment within its operating economy or jurisdiction
- Ensure that the bank has practical knowledge and understanding of the regulations and directives issued by the respective supervising body, usually the central or reserve bank.
- Ensure that the bank has adequate credit monitoring policy and procedure crafted in line with the prevailing legal and regulatory framework and the directives
- Ensure that the bank has well-established credit governance structure which reviews, monitors and administers the credit lending process
- Ensure that the bank understands the current financial condition of the borrower

- Ensure that all credit terms and lines are in compliance with the existing credit covenants of the bank and the regulatory framework of the supervising body; and the credit approval procedure coheres with credit governance structure.
- Ensure that all the credit lines established on account of the respective borrower are deployed for the original intended purpose that was agreed by the borrower and the bank during the time of approval and contract origination.
- Ensure that the projected cash flows of a borrower on major credit lines meet debt servicing requirements
- Ensure that, where applicable, the collaterals offered provide adequate coverage and safety margin.
- Ensure that all established credit lines are performing as required and term loans are being collected as per the already agreed repayment schedules,
- Ensure that all loans are classified properly and their status is reported properly as required,
- Ensure that the loan asset classification and provisioning is accurate and regularly reviewed.

The problem of credit risk that resulted due to asset quality problem often begins at the loan application or origination stage and increased further at the loan approval, monitoring and controlling stages, especially when the credit risk management guidelines in terms of policy and strategic procedures for credit processing do not exist, are weak or inadequate(Greening and Bratanovic,2003). Monitoring of borrowers is crucial as existing and potential exposure changes with both the passage of time and the movements in the underlying variables (Punaldson, 1994).

Credit monitoring is a credit function framework intended to enhance informed decision making capability of banks so that only good borrowers are accepted and only bad borrowers are rejected or the consequential risks are easily mitigated within the capacity of the lending bank if otherwise. The credit monitoring activity should therefore evaluate and control the lending process to ensure that the screening activity results in

accepting a good borrower and rejecting a bad borrower. The lending process may generally result in making two types of lending mistakes or errors. Type I error occurs when a borrower that should be accepted is rejected; and type II error occurs when a borrower that should be rejected is accepted. The accepting and rejecting rule is part of the credit decision package that is formulated based on all the relevant information collected about the borrower. This implies that the whole purpose of implementing credit monitoring is to ensure that:

- Type I error "accepting a borrower which should be rejected" is not committed.
- Type II error "rejecting a borrower which should be accepted" is not committed.
- Type I error and type II error are easily identified and managed timely.
- Therefore, the level of non-performing loans is reduced and asset quality is improved.

Asset quality is a measure of the financial characteristics of loan assets to maintain its market or economic value consistently over a reasonable period of time; and it is determined through progressive impairment test or non-performing loan (NPL) position (IAS 39, 2003). There is no global standard to define NPL at the practical level. Variations exist in terms of the classification system, the scope, and content. Such problem potentially adds to disorder and uncertainty in the non-performing issues. For example, as described by Se-Hark Park (2003), during 1990s, there were three different methods of defining NPL in Japan:

- The 1993 methods based on banking laws;
- The "bank's Self-valuation" in March 1996;
- The "Financial Review Laws-Based Debt disclosure" in 1999.

These measurements have gradually broadened the scope and scales of the risk-measurement method. Similar to the trend in Japan, more countries, regulators, and banks are moving towards adopting and adapting better and more consensus practices. For example, in the US, federal regulated banks are required to use the five-tier non-performing loan classification system according to BIS: pass, special mention,

substandard, doubtful, and loss. Currently, the five-tier system is the most popular risk classification method, or, in some cases, a dual system of reporting according to their domestic policy guidelines as well as the five-tier system.

Country definitions for NPL differ, and it is recognized that it is possible that what is appropriate in one country may not be so in another. There is, however, some convergence of opinions on this issue (IMF WP/00/195).A definition of such loans, summarized on IMF's CGFSI 2004 is:

- A loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons-such as a debtor filing for bankruptcy-to doubt that payments will be made in full.
- After a loan is classified as non-performing, the 90 days overdue criterion is commonly-but not universally-used. It (and/or any replacement loans) should remain classified as such until written-off or payments of interest and/or principal are received on this or subsequent loans that replace the original.
- It is a loan where orderly repayment of the debt is in jeopardy.

All banks need a loan classification or grading system to facilitate the monitoring and management of credit risk in their loan portfolios (Central Bank of Barbados, statutory instruments No 43, S.I.1998 No 107). Despite its critical importance, there is no well-recognized international standard for recognition and accounting for credit losses by banks. Under the current Barbados regulations, a bank's loan portfolio can be classified in to five major categories namely, in order of deteriorating status, pass, special mention, substandard, doubtful and loss. Each of these categories has, among other things, a time element before which a loan is transferred to a lower category. Generally, loan with repayments in arrears up to one month fall in to the pass category; those in arrears for one-three months in to special mention, those owing for at least three months in to substandard; the unsecured portion of loans at least six months due in to doubtful; and the

unsecured portion of loans at least twelve months due are categorized as loss. Gross classified debt, the sum of the last three categories, is taken as a ratio of total loans and reported as the non-performing loan ratio. Thus, non-performing loans are commonly described as loans in arrears for at least ninety days.

A simple definition of non-performing loan is a loan that is not earning income; and is where the following happens:-

- Full payment of the principal and interest is no longer anticipated
- Principal or interest is 90 days or more delinquent
- The maturity date has passed and payment in full has not been made
- In the case of open credit lines a turnover figure to the extent of the credit limit is exhibited, swing of 100% is not observed during the loan review period and the no transaction is observed for more than 90 days

According to BIS of US, Japan system and most Asian countries, Barbados central bank, NBE directive, most European countries and African countries, the standard classifications of loans are defined as follows. World Bank, IMF and member countries that adopted IFRS are also observed to follow similar classification pattern.

1. **Pass** :solvent loans with no instances of outstanding arrear loan payments
2. **Special mention**: loans to enterprises which may pose some collection difficulties, for instance, because of continuing business losses.
3. **Substandard**: loans whose interest or principal payments are longer than three months in arrears of lending conditions are eased.
4. **Doubtful**: full liquidation of outstanding debts appears doubtful and the accounts suggest that there will be a loss, the exact amount of which cannot be determined as yet.
5. **Virtual loss and loss (unrecoverable)**: outstanding debts are regarded as not collectible, usually loans to firms which applied for legal resolution and protection under bankruptcy laws. Banks.

According to the above definition and classification system, NPL reflects the degree of collection difficulties. Loan becomes non-performing when it cannot be recovered within certain stipulated time that is governed by the contract signed and concluded between the bank and the borrower in all terms of the legal framework of the respective jurisdiction; and this is from the institutional perspective of banks. However, a loan may also be non-performing from the perspective of the borrower when the fund is used in a different way other than the original intended purpose. Many banks, in Ethiopian context and international context, classify loans that are past due for more than ninety days as non-performing and allow provision rate set by their respective reserve banks or supervising body. Under Basel II (2004), loans past due for more than ninety days are non-performing.

2.1.2. Factors that affect asset quality

Notwithstanding the purpose it is meant for, credit monitoring has never been an easy task so as to ensure prevalence of the forms and substances of the requirements of the credit function. Credit policies and procedures have been deliberately or otherwise manipulated subject to many factors to prevail unnecessary flexibilities which ultimately cause asset quality problem.

To sum up, the following are prominent financial and economic factors that credit monitoring is subjected in ensuring the asset quality (Saurina J. and Jimenez G., 2006).

I. **Economic conditions:-**Banking supervisors, after many painful experiences, are quite convinced that banks' lending mistakes are more prevalent during upturns than in the midst of recession (Caruana, et al 2002).In good times both borrowers and banks are overconfident about the viability of the investment projects or business engagements and their ability to repay and to recoup their loans and the corresponding fees and interest charges. Banks' optimism about the borrower's future prospects, coupled with strong balance sheets and increasing competition to defend their market position, brings about more

liberal credit policies with lower credit standards; a loose monetary policy directive by the respective reserve banks can also contribute to over optimism through liquidity provision. Thus, banks may sometimes finance projects with negative NPV by relaxing their credit availing eligibility criteria committing themselves to assume consequences of the potential risks of unforeseen future events. On the other hand, during recessions-when banks are flooded with NPL, high specific provisions, and tighter capital buffers-banks suddenly turn very conservative and tighten credit standards well beyond positive NPV (Saurina J. and Jimenez G.,2006).

In effect, only their best borrowers get new funds; thus, lending during downturns is safer and credit policy mistakes much lower. Across many jurisdictions and at different points in time, credit officials seem to overweight concerns regarding type I lending policy errors during economic booms and underweight type II lending policy errors. And, the opposite happens during recessions.

II. **Principal agency problems:-**The classic principal agency problem between the bank shareholders and credit officials can feed excessive volatility in to loan growth rates. Once the credit officials obtain reasonable return on equity for their shareholders, they may engage in other activities that depart from the firm's value maximization and focuses more on their own rewards. One of such activities might be excessive credit growth in order to increase the social presence of the bank (and the management) or the power of managers in a continuously enlarging organization (Williamson 1963).If managers are rewarded in terms of growth objectives instead of profitability targets, incentives to rapid growth may result (Edward, et al, 1977).

III. **Strong market competition:-**Strong competition among banks or between banks and other financial intermediaries erodes the net benefit margins as both loan and deposit interest rates get closer to the inter-bank rate. To compensate

for the fall in profitability banks might increase loan growth at the expense of the quality of their loan asset portfolio.

IV. **Credit officials experience:-**When new credit officers are hired and the senior credit officers retire, the Novices might not know about the terms and conditions of the previous loans and hence will have less experience; and the senior credit officer might forget the lessons from the past problem loans.

V. **Monetary policy:-**The combination of risk-based capital requirements, an imperfect market for bank equity, and a maturity mismatch in bank's balance sheet gives rise to a bank capital channel of monetary policy. In boom periods, when banks show strong balance sheets and capital buffers, they over lend. However, as the expansion heads to its end, the surge in loan portfolios will erode much of the capital; at that point, a monetary shock may trigger a decline in bank profits, stringent capital ratios, and a tightening of lending standards and, subsequently, of loans available to firms and households(Ayuso, Perez, and Saurina,2004).

VI. **Collateral conditions:-**When borrowers have capacity to raise collateral properties of both moveable and immoveable, banks may be overconfident and relax their credit lending policies assuming that the loans advanced will be fully secured. And, banks will also prefer those customers with adequate collateral offer over the others even if they have viable projects .However, the risk due to other unforeseen factors will prevail when the property market value declines (Asea and Blomberg, 1998).

2.1.3. Improving credit monitoring

Credit monitoring is an integrated credit function that is helpful for credit risk management. As such it facilitates the identification, classification and mitigation of credit risk that arise due to asset quality problem. Banks with sound credit monitoring practices and early-warning systems identify risky customers before they face serious

problems, others may only take notice once a customer is past due or ratings have deteriorated substantially. The later the bank responds to deterioration in customer's credit risk, the smaller its opportunity to protect itself against losses due to asset quality problem. It is evident, as discussed above, that asset quality is affected by both internal factors and external factors. It is also believed that improving and controlling the internal variables brings an opportunity to reinforce the impact of the external factors on asset quality on the optimistic scenario or at least contain their impact to the minimum possible otherwise.

Banks with good credit monitoring practices reduce unsecured exposures for customers on the watch list **(B.Babel, et.al, 2012).**A bank can typically optimize and upgrade its corporate credit monitoring activities through:

- Assessment of current credit monitoring function
    - Set the credit monitoring model and classification rules
    - Management of watch-listed customers
    - Critically review the monitoring processes and their organization
- Credit monitoring target-model definition
    - Design target model for credit monitoring
    - Ensure effectiveness of the target model
    - Check correctness and appropriateness of the categorization
    - Set credit monitoring mandatory actions
    - Regular review of the reporting system
    - Ensure independence of the monitoring function
- Credit monitoring implementation
    - Develop action plan to close gaps against the proposed guidelines
    - Define implementation plan and start implementation

2.2.Empirical Studies

2.2.1. Credit monitoring and asset quality

Credit monitoring is measured by the prevailing level of the lending function and debt recovery function so as to ensure prevalence of management of credit risk and financial crisis due to economic and financial variables. Asset quality is measured by the level of non-performing loans that ultimately cause credit risk and financial crisis. Many literatures on this area indicate that the issue of NPL has gained increasing attention in the last few decades. The immediate consequence of large amount of NPLs in the banking system is characterized as bank failure. Many researches on the cause of bank failures find that asset quality is a statistically significant predictor of insolvency; and that failing banking institutions always have high level of NPL prior to failure. Studies in some countries show that most of bank failures have been caused by NPL.

Credit scoring is credit monitoring instrument that helps to address the lending function and debt recovery function by evaluating the impact of relevant economic and financial variables on asset quality as stated by many empirical studies which are reviewed below.

A research conducted on credit scoring for profitability objectives indicated that credit monitoring has impact on profitability of lenders which in turn is caused by asset quality **(Steven Finlay, 2008)**. The researcher deployed a series of quantitative analysis on financial performance of debtors so as to understand the credit behavior manifested by Debtors. Series of periodical quantitative data were collected from the account turnover of the debtor, a three-stage linear regression analysis were run on the collected data, the default rate was estimated, the magnitude of the non-performing loans was determined and thereby the impact to account on profitability was also determined. Though the research was meant for showing the significance of credit scoring which can be referred as credit monitoring on profitability, the analysis also showed the impact of the former on asset quality. However, the research did not account for other qualitative variables of credit monitoring that affect asset quality which in turn has impact on profitability.

M. Carey & M. Hracy (2001), parameterizing credit risk models with rating data, conducted research on credit scoring models to determine credit risk caused by credit default. The scoring model is a credit monitoring instrument deployed to assess credit risk which is accounted by credit default, asset quality problem measured by the magnitude of non-performing loans. The research deployed simple statistical analysis to determine mean default probability and weighted-average default probability to ultimately estimate the level of non-performing loans, asset quality. The research stated that quantitative credit scoring models employed by rating agencies like standard and poor's and Moody's are deficient to reflect the default realities of the borrower because they heavily depend on quantitative data which suffers from scoring model instability, bias, cyclicality of business events, information asymmetry, impact of internal and external economic factors. Cognizant to these, it deployed a multi-sage and single-stage qualitative analysis on industry ratings, ratings by Moody's, actual default histories, simulated internal ratings and financial metrics of current ratio, leverage ratio and interest coverage ratio to determine the weighted-average default probability of a borrower. It was believed that this approach helped to account for impact of qualitative factors that the quantitative approach could not capture. In effect, the research concluded that this simple credit scoring model is very instrumental credit monitoring to assess credit risk, credit default caused by information asymmetry, internal factors and macro-economic factors.

F.Garcia, et.al (2012),the research conducted on Credit risk management: A multi-criteria approach to assess credit worthiness, stated credit monitoring as a function that relates the dependent variable (credit default) with the set of explanatory variables (economic and financial information).It deployed both qualitative and quantitative analysis. The quantitative analysis is done on time-series quantitative data across many banks to determine the default due to economic and financial information about the borrower. The qualitative analysis is done on qualitative data of expert opinions. The result of the analysis showed that credit monitoring, credit scoring, helps to determine credit risk caused by financial factors and economic factors.

Y.S. Kim and S.Y.Sohn (2003), the research conducted on managing loan customers using misclassification patterns of credit scoring model deployed a time-series qualitative data analysis to determine default probability of existing customers using 700 good customers and 300 bad customers using 10 mutually exclusive sub-samples. The sub-samples were repeated ten times with one sub-sample taken differently as a validation sample. Group of people were trained to classify customers as good and bad. Four types of calcifications resulted with minor differences with the original classification. Then behavior of customer in each group of customer classification was studied in all instances of classification procedure. Based on this procedure the default probability of new customers could be approximated. The research concluded that credit monitoring enables us to manage loan customers and the respective asset quality through implementation of credit scoring models.

In addendum, there are many empirical studies which support the claim that credit monitoring is an integrated credit function in the purpose of which is to enhance the credit risk management system of banks. The credit risk caused by credit default is a mirror reflection of asset quality problem due to lack of effective credit scoring that helps to monitor and control the internal and external situations of the borrower in particular; or sound credit monitoring that helps to monitor and control the internal and external factors, financial variables and economic variables faced by both parties in general. Related research works that indicate significance of credit monitoring and non-performing loans that ultimately lead to credit risk and financial crisis are briefly reviewed as follows.

I. **Ahmed (2002)**, in analyzing the Malaysian financial system, reported a significant relationship between credit risk and financial crisis and concluded that credit risk had already started to build up before the onset of the 1997 Asian financial crisis, and became more serious as non-performing loans increased.

II. **Brownbridge,(1998) in Richard (2011)**,that conducted researches in some African bank, concluded that many of the bad debts in banks were attributable to moral hazards; the adverse incentives on bank owners to adopt imprudent lending strategies, in particular insider lending at high interest rates to borrowers in the most risky segments of the credit market. To the borrowers' side, they also tend to divert the funds to risky investments other than the original intended purpose once they are granted the loans.

III. **Palubinskas and Stough (1999)** noted that the failure of a bank is mainly seen as a result of mismanagement because of bad lending decisions made with respect to wrong appraisal of credit status, or the repayment of non-performing credits and excessive focus on giving loans to certain customers leading to unnecessary credit concentration risk. It was also commented that lack of dependable financial information on borrowers to help in assessing creditworthiness causes a bank failure.

IV. **Goodhart et al (1998)** also stated that poor credit control, which results in undue credit risk, causes bank failure.

V. **Chimerine (1998)** added that a bad lending tradition or credit decision culture leads to a large portfolio of unpaid loans; which results in insolvency of banks and reduces funds available for fresh advances that eventually causes a financial crisis.

VI. **Mohammad S.I et al (2005)** revealed that default culture is not a new dimension in the area of investment. Rather in the present economic structure, it is an established culture. The redundancy of the unusual happening becomes so frequent that it seems that people prefer to be declared as default. In developing and under-developed country, the reasons of being default have a multi-dimensional aspect. Various researches have also concluded that there are various reasons, enumerated below, for a loan to be default:

- Reduced attention to borrowers
- Moving along the risk curve

- Increasing loan size increasing risk
- Lenders lack plans to deal with risk
- Borrowers probe a credit operation's weaknesses
- Rent-seekers capture the credit program
- Lenders and project designers have low expectation
- The lender is unwilling to collect
- Lack of good models
- Loan sanctioned by corruption
- Donors give loans to dominate
- Weak follow-up weakening the system

VII. **Sergio(1996)** in a study of NPLs in Italy found that, an increase in the riskiness of loan assets is rooted in a bank's lending policy adducing to relatively unselective and in adequate assessment of sect oral prospects. Interestingly, this study refuted that the business cycle could be a primary reason for bank's NPLs. The study emphasized that increase in bad debts as a consequence of recession alone is not empirically demonstrated. It was viewed that the bank-firm relationship will thus; prove effective not so much because it overcomes informational asymmetry but because it recoups certain canons of appraisal.

VIII. **McGovern (1993)**, in a study of loan losses of US banks, argued that 'character' has historically been a paramount factor of credit and a major determinant in the decision to lend money. Banks have suffered loan losses through relaxed lending standards, unguaranteed credits, the influence of the 1990s culture, and the borrowers' perceptions. It was suggested that bankers should make a fairly accurate personality-morale profile assessment of prospective and current borrowers and guarantors. Besides considering personal interactions, the banker should:

- Try to draw some conclusions about staff morale and loyalty
- Study the person's personal credit report

- Do trade-credit reference checking
- Check references from present and former bankers
- Determine how the borrower handles stress

2.2.2. Factors that affect asset quality

Researchers conducted on Turkey banking industry using credit scoring models through a quantitative research on macroeconomic modeling of credit risk for Banks indicated impact of macroeconomic variables on credit risk **(Funda Yurdakul, 2013)**. The research deployed general-to-specific modeling methodology of Hendry (1980) to analyze the short-run dynamic inter-variables relationships, while Eagle-Granger (1987) and Gregory-Hansen (1996) methodologies were deployed to analyze the long-run relationships. The study was meant for understanding the relationship between credit risk represented by non-performing loan ratio and macroeconomic factors represented by inflation rate, interest rate, ISE-100 index, foreign exchange rate, growth rate, M2 money supply and unemployment rate during the January 1998 and July 2012.The data for the analysis were collected from the monthly bulletin of more than 52 samples across all region of turkey. The results of the research in both methods showed that;

- An increase in ISE-100 index and growth rate is observed to decrease non-performing loans position while,
- An increase in money supply, inflation rate, interest rate, exchange rate and unemployment rate is observed to increase in non-performing loan position.

Studies conducted on Indian Bank using a panel regression analysis indicated the impact of financial and economic variables i.e., terms of credit, bank size induced risk preferences and macroeconomic shocks on asset quality (**R.Ranjan and S.C. Dhal,2003)**. Asset quality was measured through assessing the non-performing loan position of banks. The research was conducted on cross-sectional analysis; non-

performing loan is a dependent variable which is a function of the financial and economic factors are independent variables where;

- Non-performing loans is defined as bank's gross non-performing loans to gross advances or net non-performing loan to net advances in time t,
- The economic environment is captured through the growth rate of aggregate economic activity,
- Terms of credit is defined over banks loan maturity, interest rate and collateral value backing the credit to the borrower
- The bank size measured through credit deployment subject to the bank specific indicators and credit orientation or culture reflecting a bank's preference for credit measured by credit-deposit ratio relative to that of the banking industry and measure of loan exposure to priority sector.

The cross-section analysis deployed was meant for providing meaningful analysis of inter-linkage among the economic and financial variables after duly recognizing the heterogeneous nature of economic agents and their behavior. The panel regression methodology recognizes individual characteristics as well as regularity and/or continuity in the cross-section units in order to establish meaningful relationship between the different economic and financial variables. The empirical analysis suggested that;

- Terms of credit variables have significant effect on bank's non-performing loans in the presence of the bank size and macroeconomic shocks.
- Changes in the cost of credit in terms of expectation of higher interest rate induce increase in non-performing loans. On the other hand, factors like horizon of maturity of credit, better credit culture, and favorable macroeconomic and business conditions lead to lowering non-performing loans.
- Measures of bank size could give rise to differential impact on bank's non-performing loans. Bank size measured in terms of assets has negative impact on non-performing loans while the measure of bank size in terms of capital positive

and significant effect on gross non-performing loans but negligible effect on net non-performing loans.

- Banks exposure to priority sector lending could not be more important than credit culture and terms of credit lending. Positive deviation of an individual bank's credit-deposit ratio from that of the industry's average could have favorable effect on reducing non-performing loans.

A case research conducted to identify the causes of non-performing loans that resulted in bank failure in Zimbabwe (**M.T. Joseph, et.al, 2012)**, a case study design of CBZ bank limited in Zimbabwe was employed. The study thoroughly examined through interviews and questionnaire to understand the major factors that cause non-performing loans. Qualitative data analysis was conducted on data collected through respondent's opinion survey and simple quantitative analysis was conducted on quantitative data collected for three consecutive years running from 2009 to 2011to understand the trend of non-performing loans against the gross loans volume and across sectoral distributions. The case research analysis result showed that;

- The non-performing loans were caused by internal and external factors where,
- The internal factors identified as causal variable are poor credit policy, weak credit analysis, poor credit monitoring, inadequate risk management and insider loans. These factors are states to have minimal causality effect to non-performing loans as they are controllable provided that the bank is vigilant in its credit monitoring practice.
- The external factors identified as causal variable are natural disaster, government policy and integrity of the borrowers. These factors are stated to have significant causality effect on non-performing loans as they are beyond the control of the bank.

In addition, other contemporary empirical studies that intensively researched on factors that affect asset quality through deployment of quantitative and qualitative analysis similar to the above research works concluded that there are various internal and

external economic and financial variables to be cited as factors affecting asset quality of banks. Brief reviews of these research works are summarized below.

I. **McNulty et al, (2001)**, national economic downturn, insider lending, political connection of bank owners, customers failure to disclose vital information during the loan application process, lack of proper skills amongst loan officials were among the major factors identified in other countries to cause NPL. Controlling NPL is very important for both the performance of an individual bank and the economy's environment.

IX. **Bercoff et al (2002)** examined the fragility of the Argentinean Banking system over the 1993-1996 periods; and argued that NPLs are affected by both bank specific factors and macro-economic factors using survival analysis on banks with respect to each factor.

X. **Salas and Saurina (2002)** also revealed, using dynamic model and panel data set covering the period 1985-1997 to investigate the determinants of problem loans in Spanish commercial and saving banks, that real growth in GDP, rapid credit expansion, bank size, capital ratio and market power do have respective impact on non-performing loan.

XI. **Jimenez and Saurina (2005)** examined the Spanish banking sector from 1984-2003;and provided evidence that NPLs are determined by GDP growth, high interest rates and lenient credit terms, which is attributed disaster myopia, herd behavior and agency problems that may entice bank managers to lend excessively during economic boom periods.

XII. **Babihuga (2007)**, in an IMF working paper, explores the relationship between several macro-economic variables and financial soundness indicators (capital adequacy, profitability, and asset quality) based on country aggregate data. She explained the cross-country heterogeneity by differences in interest rates, inflation, and other macro-economic factors. However, the study did not consider the impact of industry specific drivers of problem loans.

XIII. **Bloem and Gorter(2001)** suggested that a more or less predictable level of NPLs, though it may vary slightly from year to year, is caused by an inevitable number of 'wrong economic decisions' by individuals and plain bad luck(inclement weather, unexpected price changes for certain products, etc.).

XIV. **Fuentes and Maquieira (1998)** undertook an in-depth analysis of loan losses due to the composition of lending by type of contract, volume of lending, cost of credit and default rates in the Chilean credit market.Thier empirical analysis examined different variables and concluded that the following are driving factors that may affect loan repayment or credit default:

- Limitations on the access to credit
- Macroeconomic stability
- Collection technology
- Bankruptcy code
- Information sharing
- The judicial system
- Prescreening techniques
- Major changes in the financial market regulation

A research conducted through quantitative and qualitative analysis on asset quality and credit monitoring(**S.Jesus and J.Gabriel ,2006)** so as to understand the factors that affect asset quality where;

- In the quantitative analysis, descriptive statistics was deployed for asset quality and credit monitoring. Asset quality is measured through the ratio of non-performing loan to total loans while credit growth is a proxy for credit monitoring and is measured through loan asset volume and loan growth rate, volume and portfolio of collateralized loans, real interest rates, gross domestic products volume and growth rate, market size, growth rate and geographic market share with the bank specific variables.

- In the qualitative analysis, descriptive research methodology was deployed for asset quality and credit monitoring prudential regulations where the later is measured through changes observed in asset quality subject to the changes in credit monitoring regulations or credit lending cycles, quality and standards..
- Finally, a Monte Carlo simulation was deployed to analyze the overall data.

The result of the research analysis indicated that,

- The macroeconomic variables are both significant and have the expected signs. The acceleration of GDP as well as a decline in real interest rates brings about a decline in non-performing loans. The impact of interest rates is much more rapid than that of the economic activity.
- The impact of credit portfolio concentration in a region is significant to affect the non-performing loans while the industry concentration is not significant.
- The impact of collateral in non-performing loans positive but insignificant
- The size of the bank does not have significant impact on non-performing loans
- Rapid credit growth results in lower credit standards that eventually bring about higher non-performing loans.

2.2.3. Improving credit monitoring

A research conducted in a qualitative research through deployment of descriptive qualitative analysis on expert opinions so as to understand the reasons for non-performing loans on current economic structures **(M.S. Islam, et.al, 2005)**, the consequences and how to handle the situations. To complement the expert opinions, series of interviews were conducted on selected borrowers. Based on analysis of the data collected across many banks and borrowers, the result showed that the following are possible ways of improving credit monitoring.

- Improving understanding of law and order situation
- Implementing proactive risk assessment system

- Motivation of borrowers with improved credit performance
- Partnering with credit agencies of best practice
- Less credit standard flexibility and adapting credit strategic flexibility framework
- Enhancing collateral and document management system
- Developing and implementing situation specific credit monitoring models
- Practicing real time training to credit officers
- Implementing credit monitoring trade-offs framework
- Implementing regular credit monitoring and review system

2.3.Conclusion

The theoretical considerations and empirical studies revealed that credit monitoring is a credit function framework designed and implemented to enhance the management of credit risk that would arise from credit default due to various economic and financial variables if not managed systematically. As such it is meant for managing the economic and financial conditions that would affect the sustainability of the relationship between the bank and the borrower due to undesirable outcomes, credit default. Cognizant to its importance to improve asset quality and thereby improve the management of credit risk, credit monitoring is required to be designed and implemented in a more proactive way so as to ensure the factors that affect asset quality are properly addressed.

The factors that affect credit monitoring activity and asset quality can be generically classified as financial and economic variable. The financial and economic variables that affect both are of internal and external factors. They can be of qualitative and quantitative nature. The main factors that are identified to drive asset quality are described as follows.

I. The financial factors are size of loan, mode and term of repayment, interest rate structure, collateral position of the borrower, loan portfolio and exposure limit, financial asset portfolio and performance.
II. The economic factors are the structure and size of the economy, the market structure and condition, demand-supply structure, market capitalization and price

structure, business cycle, sectoral development and performance portfolio, GDP growth, monetary policy and fiscal policy, exchange rate and inflation rate.

Based on the findings from empirical evidences, it can be concluded that credit monitoring activity is significantly related to asset quality, both are affected by financial variables and economic variables; and manipulating the factors helps to improve asset quality by improving credit monitoring activity. But the conclusion lacks generilizeability because of the following gaps.

I. The empirical studies were conducted mostly in OECD member countries where relative liberalized economic structures are adopted, markets are efficient, credit cultures are enhanced, monetary policies are deregulated and monitored with Basel III and above, financial access is optimized, credit information and rating agencies are available.
II. Advanced quantitative scoring models are deployed using long series data collected from pioneer experts, organized rating agencies and long experienced banks managed by long-time served practitioner industry leaders.

Chapter Three

Research Methodology

3. Introduction

So as to answer the research questions that are expected to address the problem framed based on the gaps identified on the review of the empirical studies, primary data were collected. The collected data was summarized, analyzed and interpreted under chapter four in the findings and discussions part. The results of the data analysis were connected to the premises derived from the literature review to arrive at conclusions that lead to possible recommendations. Descriptive research design is employed to assess and describe credit monitoring activity and asset quality in Dashen Bank, which is the largest of private commercial banks operating in Ethiopia (measured in term of total deposit and loan size based on the 2013 audited statements of the financial position of private banks).

3.1.Research Design

- Descriptive qualitative research design was employed on the following grounds:
    - Based on its appropriateness to capture the events and facts about the research questions.
    - Due to the qualitative nature of the data to be collected
    - Due to the qualitative characteristics of the items that construct the research questions.
    - The data analysis to be used is qualitative analysis that does not involve application of descriptive statistical analysis.
    - The research involves assessment and description of the nature and impact of research variables and their respective relationship.

3.2.Research population and Sampling

- Data useful for addressing the research questions were collected from only Dashen Bank. Hence, the unit of analysis is Dashen Bank and the population under consideration for the research is Dashen Bank credit employees.
- The target population for the research involves about 89 staffs; 40 of them worked for more than ten years directly in the credit operation and the rest are recently assigned and have less experience directly in the credit operation. In effect, so as to survey the expert opinion of senior staffs, only those who directly worked in credit monitoring activity for more than ten years including credit officers, Area Bank Managers, risk management and compliance officers and executive management members were considered for the study. Accordingly, the target population was redefined to focus on the 40 experienced credit employees. List of these staffs was obtained from the human resource management department employee profile record. The respective responsibility and experience of these employees was checked and validated through analysis of the responses from the questionnaire distributed.
- Sample size of 100%, 40 staffs, of the redefined target population were considered. No specific sampling technique was deployed as all of the population size was taken for the purpose.
- The rationale for redefining the target population to the 40 staffs who have direct experience in credit operation is because the rest were believed to have only know-how but not know-what of credit monitoring activity and asset quality during their stay in the bank. This was also believed to help the research gain better understandings on the research questions. They were not included so for lest the responses could presumably be incomplete and potentially misleading.

3.3.Data collection

- Structured questionnaire was developed and distributed to sample participants to collect the primary data. The instrument and the question items that constructed the questionnaire were developed in consultation with experts who have been working in Bank of Abyssinia, Awash international Bank and National Bank of Ethiopia. These experts are believed to have adequate experience on the topic because of their direct involvement in credit operation in the respective banks.
- Before use, preliminary data collection was conducted by distributing the questionnaires to group of experts of five who did not participate in the questionnaire development to test the reliability and validity of the instrument through analysis of the responses collected. Then the questionnaires were distributed to each participant in person through a data collector. The data collector was induced about how to facilitate the distribution and collection of the questionnaire. He attended the participants regularly to ensure that all questionnaires were properly filled and returned back completely; because the questionnaires were self-administered.
- The rationale for using structured questionnaire instrument was to ensure that the responses of the participants concentrated on the topic.
- The entire distributed questionnaires were fully collected and all the required questions were responded properly and completely. All the questionnaires were useable for the research purpose.
- The data collected was categorized and summarized in a table form according to the research variables, and presented for analysis. Then after, the summarized data was analyzed using descriptive qualitative analysis. The results of the analysis were presented in the findings and discursion part as portrayed in the next chapter.

Chapter Four

Findings and discussion

4 Introduction

The data collected through the questionnaire from the sample respondents so as to understand the credit monitoring activity and asset quality in Dashen Bank were tabulated and presented in a consolidated summary report. The responses were of two types; some were structured by the researcher in advance and some were determined by the respondents being categorized based on common characteristics of the issues addressed so as to survey their expertise opinions. Responses of the participants to open-ended questions are either independent or exclusive in nature. Those questions with independent response options may have overlapping frequency where the aggregate frequency may have possibility of being more than 20; where as those questions with exclusive response options do have only aggregate frequency of 20.

The items that are intended to help understand the research question about the credit monitoring practice and asset quality in Dashen Bank are presented with unique code and percentage show the number of respondents to each question from the total participants; together with the corresponding responses being uniquely coded, frequency, percentage and mode. The frequency and the mode show the response with the highest relative frequency.

4.1 Summary of questionnaire responses

The entire questionnaire distributed were properly filled and completely collected. All the responses obtained were relevant and useable to conduct the research. All the respondents participated in the opinion survey were found to have worked in the credit operation for more than ten years; 16 with experience of 11-15 years and the rest with

experience of more than 15 years of experience. The breakdown of the result is as indicated in the tables shown below.

Table 4.1: Questionnaire response rate

Description	Target respondents	successful	Success rate (%)
Questionnaire	40	40	100%

Table 4.2: Profile of questionnaire respondents

Years of experience in credit monitoring practice	frequency	percent
11-15 years	16	40.0%
More than 15 years	24	60.0%
Others	-	-
Total	20	100.0%

4.2 Summary of Responses on Research Questions

Summary of the responses on the research questions were analyzed using a descriptive qualitative analysis technique, and the findings are discussed herein under in a manner that attempted to answer the research questions so that the problem could be properly addressed. The findings and discussions on the matter thereof are presented in a way that ensures achievement of the research objectives.

4.3 Relationship of credit monitoring activity and asset quality

So as to critically review and understand the relationship between credit monitoring activity and asset quality, the opinion survey taken from the experts, to whom the structured questionnaire was distributed, the result was summarized and presented in the tables shown here under. The question items which constructed the research question were meant to address the need to assess the relationship between credit monitoring

activity and asset quality, and the significance of the respective relationship. Accordingly, the findings of the assessment using the specified measurement scale were that:-

I. Credit monitoring activity and asset quality are related as evidenced by majority of the respondents with 50% constituting strong agreement and 25% constituting somewhat agreement respectively.

II. Significance of the relationship between credit monitoring activity and asset quality, as stated above, is strong or somewhat strong as evidenced by 62.5% and 12.5% respectively.

III. Therefore, credit monitoring activity and asset quality do have a relationship which is also strong as the respective mode of the frequency derived for the purpose showed so.

Table 4.3: Relationship of credit monitoring activity and asset quality

Response category	Response frequency					Mode	%age
	5	4	3	2	1		
CMA and AQ are related	20	10	5	3	2	5	50.0%
Significance of relationship	25	5	5	3	2	5	62.5%

*For ease of understanding, please note that CMA stands for credit monitoring activity and AQ stands for asset quality. The response frequency was measured using likert scales where **1** stands for strongly weak,**2** stands for weak,**3** stands for neutral,**4** stands for somewhat and **5** stands for strongly. The value under each measurement scale shows the number of experts who opted for that scale category. Mode stands for response frequency of relatively the highest value. The percentage shows the rate of the mode response frequency value*. The likert scales measure level of agreement and significance for the relationship of CMA and AQ.

4.4 Factors that affect credit monitoring activity and asset quality

The findings summarized from the structured questionnaire indicated that credit governance, collateral position of the borrowers, credit culture prevalent in the banking industry, market conditions, economic conditions, economic conditions, financial conditions and the monetary policy adopted by the National bank of Ethiopia are relevant factors that affect credit monitoring activity and asset quality severally and jointly. These factors were further classified based on their impact on credit monitoring activity only, asset quality only or both taking in to consideration the significance level of their respective impact.

Summary of the responses of the expert opinions and critical evaluation of the results indicated that the following are the major findings of the research question that tried to assess the factors that affect credit monitoring activity and/or asset quality; the identified findings also included the specific reasons that contributed to the respective impact

I. Credit governance affects credit monitoring activity credit monitoring activity and/or asset quality due to lack of regular loan review, insider loan, double standard and lack of follow-up as evidenced by the respective response rate of 20%, 25%, 12.5% and 12.5%. The findings stated that it affects credit monitoring activity only, asset quality only or both as evidence by 12.5%, 15% and 72.5%, of the experts' response.
    a. It impact on credit monitoring activity only is indicated as strongly or somewhat significant by 60% and 40% of the responses under this category.
    b. Its impact on asset quality only is indicated as strongly or somewhat significant by 83% and 17% of the responses under this category.
    c. Its impact on both is indicated as strongly or somewhat significant by 52% and 45% of the responses respectively while the rest indicated as neutral based on the responses under this category.

II. Collateral position of borrowers affects credit monitoring activity and/or asset due to low collateral value, low marketability and location value as implied from the responses of 37.5%, 37.5% and 25% of the experts. Further analysis of the finding indicated that it affects credit monitoring activity only, asset quality only or both as evidenced by 2.5%,35% and 62.5% of the respondents.

   a. Its impact on credit monitoring activity only is indicated as neutral by the responses under this category

   b. Asset quality only indicated that its impact is strongly significant, somewhat significant and neutral as evidenced by 57%, 36% and 7% of the relative expert response.

   c. its impact on both based on this relative response is strongly or somewhat significant as evidenced by 68% and 16% respectively while the rest indicated the impact to be neutral.

III. Credit culture affects credit monitoring activity and/or asset quality due to reluctance to repayment, intentional default and diversion as evidenced by 62.5%, 12.5% and 10% of expert opinion respectively. Breakdown of the findings indicated it affects both credit monitoring and asset quality as evidenced by 50%, credit monitoring activity only by 25% and asset quality only by 25% of expert opinions.

   a. Its impact on credit monitoring activity is indicated as strongly or somewhat significant by 60% and 30% of the responses respectively while the rest indicated as neutral under this category.

   b. Its impact on asset quality only is indicated as strongly or somewhat significant by 70% and 20% of the responses while the rest indicated as neutral under this category.

   c. Its impact on both is indicated as strongly or somewhat significant by 60% and 20% of the responses respectively while the rest indicated as neutral and weak under this response category.

IV. Market condition affects credit monitoring and/or asset quality due to unfair competition, information asymmetry and unethical business practice as evidenced by 45%, 40% and 15% of the expert opinion respectively. The finding stated that it affects credit monitoring activity only, asset quality only or both according to the 22.5%, 32.5% and 45% of the expert opinion.

   a. Its impact on credit activity only indicated as strongly or somewhat significant by 78% and 22% of the relative expert response

   b. Its impact as strongly or somewhat significant by 46% or 31% respectively by the experts while the rest indicated its impact as neutral, weak or strongly weak based on the relative expert response rate.

   c. Its impact on both is indicated as strongly or somewhat significant by 56% and 22% of the responses while the rest indicated as neutral weak or strongly weak based on the responses under this category.

V. Economic condition affects credit monitoring activity and/or asset quality due to sectoral priority, economic growth and unclear economic policies as evidenced by 30%, 60% and 10% of the expert responses. Breakdown of the findings stated that it affects credit monitoring activity only, asset quality only or both as evidenced by 20%, 27.5% and 52.5% of the experts response respectively.

   a. Its impact on credit monitoring activity only is stated as strongly and somewhat significant by 25% and 25% of the experts respectively while the rest indicated as neutral, weak or strongly weak based on the relative expert response rate.

   b. Its impact on asset quality only is stated as strongly and somewhat significant by 36% and 27% of the experts respectively while the rest indicated as neutral or weak based on the relative expert response rate.

VI. Financial condition affects credit monitoring activity and/or asset quality due to bank size, loanable fund position and interest rate as evidenced by 25%, 50% and 25% of the expert responses. The findings stated that it affects credit monitoring

activity only, asset quality only or both based on the expert responses of 15%, 12.5% and 72.5% of the expert responses.

a. Its impact on credit monitoring activity only is stated as strongly or somewhat significant by 50% and 33% of the experts while the rest indicated as neutral based on the relative expert response rate.
b. Its impact on asset quality only is stated as strongly significant by all of the responses under this category.
c. Its impact on both credit monitoring activity and asset quality is stated as strongly or somewhat significant by 62% and 28% of the experts respectively while the rest indicated as neutral or weak based on the response rate under this category.

VII. Monetary policy affects credit monitoring activity and/or asset quality due to capital requirement, credit portfolio requirement, BE Bill purchase and asset classification and provisioning as evidenced by 25%, 25%, 30% and 20% of the expert responses. The findings stated that it affects credit monitoring activity only, asset quality only or both as per the responses of 27.5%, 30% and 42.5% of the experts respectively.

a. Its impact on credit monitoring activity only is indicated as strongly or somewhat significant by 73% and 27% of the experts' response under this category.
b. Its impact on asset quality only is indicated as strongly or somewhat significant by 58% and 33% of the responses respectively while the rest indicated its impact as neutral based on the expert responses under this category.
c. Its impact on both is indicated as strongly or somewhat significant by 76% and 24% of the expert responses under this category.

Analysis of the findings indicated that all the factors stated in the research question affect both credit monitoring activity and asset quality with varying degree of significance level. The credit governance, collateral position, credit culture, economic conditions and

financial conditions affect both credit monitoring activity and asset quality significantly as can be evidenced by 50% and more of the expert opinions. The market condition and the monetary policy also affect both credit monitoring activity and asset quality significantly though this was asserted by less than 50% of the respondents.

It was also understood from the responses pointed out in the open-ended questions and analysis of the summarized finding that;

I. Credit culture, market condition, economic condition and monetary policy affect the credit monitoring activity significantly because these factors are external by their nature. When any one of these factors is changing, the credit monitoring activity most likely changes to address the consequential impacts on the banking business. As asset quality is affected by the credit monitoring activity, when changes happen on these factors to the level that affects the credit monitoring activity then the asset quality will most likely change.

II. Credit governance, collateral position and financial condition affect asset quality significantly because these factors are either internal or controllable to the banking business. Even though these factors were stated to have impact on the credit monitoring activity, they are rather manipulated by the credit monitoring activity. Therefore their impact can be expressed as signaling the need for tight or lenient credit monitoring activity so as to reinforce their effect on the credit operation.

Table 4.4: Factors affecting credit monitoring activity and/or asset quality

Factor	Response	Freq.	Significance					Mode	%age
			5	4	3	2	1		
CG	A	5	3	2	-	-	-	5	60.0%
	B	6	5	1		-	-	5	83.3%
	C	29	15	13	1	-	-	5	51.7%
CP	A	1		-	1	-	-	3	100.0%
	B	14	8	5	1	-	-	5	62.5%
	C	25	17	4	4	-	-	5	68.0%
CC	A	10	6	3	1	-	-	5	60.0%
	B	10	7	2	1	-	-	5	70.0%
	C	20	12	4	2	2	-	5	60.0%
MC	A	9	7	2	-	-	--	5	77.8%
	B	13	6	4	1	1	1	5	46.2%
	C	18	10	4	2	1	1	5	55.6%
EC	A	8	2	2	2	1	1	5,3,2	25.0%
	B	11	4	3	2	2	-	5	36.4%
	C	21	11	8	1	1	-	5	52.4%
FC	A	6	3	2	1	-	-	5	50.0%
	B	5	5	-	-	-	-	5	100.0%
	C	29	18	8	2	1		5	62.1%
MP	A	11	8	2	-	-		5	72.7%
	B	12	7	4	1	-		5	58.3%
	C	17	13	4	-	-		5	76.5%

*Please note that **A**=the factor affects credit monitoring activity only **B**= the factor affects asset quality only and **C**= the factors affects both. Likert measurement scales used where **5**= strong,**4**= somewhat,**3**= neutral,**2**= weak and **1**=strongly weak in measuring the significance of the impact of the factors in affecting credit monitoring activity and/or asset quality.**CG**= credit governance, **CP**=collateral position, **CC**=credit culture, **MC**=market condition, **EC**=economic condition, **FC**=financial condition and **MP**=monetary policy.*

Table 4.5: why the factors affect credit monitoring activity and/or asset quality

Factor	Why it affects		Freq.	%age	Mode
	code	Description			
CG	1	Lack of regular review	20	50.0%	1
	2	Insider loan	10	25.0%	
	3	Double standard	5	12.5%	
	4	Lack of follow-up	5	12.5%	
CP	5	Low collateral value	15	37.5%	5,6
	6	Low marketability	15	37.5%	
	7	Location value	10	25.0%	
CC	8	Reluctance to repayment	25	62.5%	8
	9	Intentional default	5	12.5%	4
	10	Diversion	10	10.0%	5
MC	11	Unfair competition	18	45.0%	11
	12	Information asymmetry	16	40.0%	
	13	Unethical business practice	6	15.0%	
EC	14	Sectoral priority	12	30.0%	24
	15	Economic growth	24	60.0%	
	16	Unclear economic policies	4	10.0%	
FC	17	Bank size	10	25.0%	20
	18	Loanable fund position	20	50.0%	
	19	Interest rate	10	25.0%	
MP	20	Capital requirement	10	25.0%	12
	21	Credit portfolio requirement	10	25.0%	
	22	NBE bill purchase	12	30.0%	
	22	Asset classification & prov.	8	20.0%	

4.5 Relationship of factors that affect credit monitoring activity and asset quality

The findings on the relationship of the factors that affect credit monitoring activity and asset quality are the following. The summarized data showed the inter-factor relationship, significance and importance of the relationship.

I. Credit governance has strongly and somewhat significant relationship with credit culture, financial condition and monetary policy as can be evidenced by the majority of the expert opinions.
II. Collateral position has strongly and somewhat significant relationship with credit culture, economic condition and financial condition as can be evidenced by the responses of the majority of the experts.
III. Credit culture has strongly and somewhat significant relationship with the economic condition, financial condition and monetary policy.
IV. Market condition has strongly and somewhat significant relationship with economic condition, financial condition and monetary policy as can be evidenced by the responses of the majority of the experts.
V. Economic condition has strongly and somewhat significant relationship with financial condition monetary policy as can be evidenced by the responses of the majority of the experts.
VI. Financial condition has strongly and somewhat significant relationship with the monetary policy as can be evidenced by the responses of the majority of the experts.

For better insight on the findings, further analysis is required to examine the relationship of the factors so as to observe the reflection on the relationship between credit monitoring activity and asset quality. In effect, the factors can be classified as internal and external to the banking business based on their degree of controllability.

I. The credit monitoring activity is under the supervision, and control, of the national Bank of Ethiopia due to the power vested upon it to monitor the banking business through its monetary policy. The National Bank of Ethiopia supervised the operation of banks and their relationship with their customers. But it supervises, and controls, the behavior of banks not their customers. It also supervises the market condition of the banking sector not the general market

condition and the entire economic condition. Therefore, the credit culture, the market condition, economic condition and the monetary policy are external factors that affect credit monitoring activity.

II. Credit monitoring activity affects credit governance, collateral position and financial condition; and these factors affect asset quality. In effect, the aforementioned factors are internal factors that can be controlled by the credit monitoring activity.

III. Analysis of the inter-factor analysis showed that:

   a. The economic condition affects the market condition, the monetary policy and the credit culture. Directly or by implication, credit monitoring activity is affected by these factors and so is asset quality.

   b. The credit monitoring activity affects the credit governance, the collateral position and financial condition by the effects of the economic condition, market condition, credit culture and monetary policy on it. And, the effect of these factors is transferred to asset quality through the credit monitoring activity.

Table 4.6: Relationship of factors affecting CMA and/or AQ

Factor selected	Effective pair	Response frequency					Mode	%age
		5	4	3	2	1		
CG	CP	3	7	25	4	1	3	62.5%
	CC	19	11	5	3	2	5	47.5%
	MC	7	11	20	6	2	3	50.0%
	EC	4	6	24	3	3	3	60.0%
	FC	18	12	6	2	2	5	45.0%
	MP	20	5	7	4	4	5	50.0%
CP	CC	15	10	9	6	5	5	37.5%
	MC	15	5	10	3	7	5	37.5%
	EC	10	15	8	4	3	4	37.5%
	FC	13	10	11	3	3	5	32.5%
	MP	4	6	18	8	4	3	45.0%
CC	MC	3	7	17	8	6	3	42.5%
	EC	7	18	10	4	1	4	45.0%
	FC	18	13	4	3	2	5	45.0%
	MP	13	12	9	4	2	5	32.5%
MC	EC	21	18	1	-	-	5	52.5%
	FC	14	11	8	5	2	5	35.0%
	MP	16	9	10	3	2	5	40.0%
EC	FC	20	16	3	1	-	5	50.0%
	MP	23	16	1	-	-	5	57.5%
FC	MP	20	16	3	1	-	5	50.0%

4.6 Improving credit monitoring activity to improve asset quality

It is evident that credit monitoring activity is significantly related to asset quality. This was substantiated by the fact that factors that affect credit monitoring activity also affects asset quality. It is also worth noting that some factors do have strong impact on credit monitoring and some other factors do have similar impact on asset quality. Particularly, financial condition has more impact on credit monitoring than on asset quality; while credit governance, collateral position, market condition, economic condition and monetary policy have more impact on asset quality than on credit monitoring activity. But credit culture has similar impact on credit monitoring activity and asset quality.

In effect, it is clear that improving credit monitoring helps to improve asset quality. And, it is worth considering that improving factors that affect credit monitoring activity also improves asset quality.

I. The economic condition, market condition, credit culture and monetary policy are external to the credit monitoring activity; they cannot be manipulated at bank level to improve the credit monitoring activity. Rather it should be adapted to the specific contexts of the respective factors.
II. The credit governance, collateral position and financial condition are internal factors, so manipulating these factors to the required direction helps to improve the credit monitoring activity.

Chapter five

Conclusion and Recommendation

5.1 Conclusion

This research paper is conducted on credit monitoring and asset quality in the case of Dashen Bank, in an endeavor to assess the relationship of credit monitoring and asset quality, factors that affect credit monitoring and asset quality, relationship of the factors and improving credit monitoring to thereby improve asset quality. In so doing, primary data were collected through structured questionnaire. The findings were analyzed and discussed.

The main findings identified in the study were related to the issues that address the relationship of credit monitoring activity and asset quality, factors that affect credit monitoring activity and/or asset quality, relationship of the factors and areas of improving credit monitoring activity to improve asset quality. The findings were presented in the stylized facts summarized from the opinion survey collected though structured questionnaire. The stylized facts were presented in a tabulation form by categorizing the experts responses based on their conceptual relationship.

Credit monitoring activity is related to asset quality and the relationship is significant. The relationship, and its significance, was validated through identifying the factors that affect credit monitoring activity and asset quality. The significance of the relationship showed the importance of the relationship to manipulate the relationship of credit monitoring activity and asset quality by observing its sensitivity through impacting the respective factors. To improve or change the relationship between credit monitoring activity and asset quality to the desired level, the credit monitoring activity should be manipulated to adapt to the external factors and so should the internal factors to the credit monitoring activity.

5.2 Recommendation

Based on the conclusions drawn from the analysis of the findings of the research, the credit monitoring activity should be regularly reviewed to ensure that it well addresses the impacts of the economic conditions, market conditions, credit culture and monetary policy. In so doing;

a. The credit deployment plan and loan portfolio management should be aligned to the sectoral priority of the government, economic growth and economic policy directions of the government through periodical economic and sectoral analysis studies. It should also be considerate of the capital requirement, credit portfolio requirement, NBE bill purchase requirement, the bank's size and loanable fund position to ensure regulatory compliance and financial stability. Besides, market assessment studies should be conducted to ensure better competitive profile in financial services and pricings.

b. The credit appraisal and approval function should deploy enhanced credit scoring models and be standardized so as to ensure only good customers are selected and the loans are recoverable. The appraisal and approval functions should be handled at different hierarchies of authority to enhance the credit governance. The credit scoring model should incorporate analysis of credit customer's character, profile and collateral position to assess the repayment habit and commitment in use of the fund for the intended purpose, information asymmetry, collateral value and its marketability respectively.

c. The performance evaluation and monitoring activity should be regularly reviewed to ensure that supervisory and disclosure requirements are complied. The loan review activity, insider loan position review, the follow-up procedure and the asset classification and provisioning procedures should be watched vigilantly.

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Appendices

Structured Questionnaire

I. In which of the following functions is your current responsibility?

A) Credit operation B) international banking operation C) E-banking operation D) fund transfer operation E) other

II. How long have you worked in the area of your current responsibility?

A) 11-15 years B) above 15 years C) other, please specify_____

1. Credit Monitoring activity and asset quality are related.

1.1. Credit monitoring activity and asset quality are related.

A) Strongly agree B) agree C) neutral D) disagree E) strongly disagree

1.2. How is credit monitoring activity and asset quality related?

A) Strongly B) somewhat C) neutral D) weak E) insignificant

2. Factors that affect credit monitoring activity and asset quality

2.1. Do the following factors affect credit monitoring activity and asset quality? Write A if the factor affects only credit monitoring activity only, B if it affects only asset quality or C if it affects both.

2.1.1. Credit governance:_____
2.1.2. Collateral position:_____
2.1.3. Credit culture:_____
2.1.4. Market condition:_____
2.1.5. Economic condition:_____
2.1.6. Financial condition:_____
2.1.7. Monetary policy:_____

2.2. How do the factors stated above affect credit monitoring activity or asset? Use the scales 5=strong, 4=somewhat, 3=neutral, 2=weak and 1= insignificant to show the significance of their respective impact.

2.2.1. Credit governance:_____
2.2.2. Collateral position:_____
2.2.3. Credit culture:_____

2.2.4. Market condition:_____

2.2.5. Economic condition:_____

2.2.6. Financial condition:_____

2.2.7. Monetary policy:_____

2.3. **Why do you think the factors stated above affect credit monitoring activity or asset quality? Give short descriptions of the reasons if any for each item or both as the case demands based on your response under question No 2.2**.

2.3.1. Credit governance

_____

_____

_____

2.3.2. Collateral position

_____

_____

_____

2.3.3. Credit culture

_____

_____

_____

2.3.4. Market condition

_____

_____

_____

2.3.5. Economic condition

_____

_____

_____

2.3.6. Financial condition

_____

_____

_____

2.3.7. Monetary policy

_____

_____

_____

3. **Relationship of factors that affect credit monitoring activity and asset quality**. Use the scales **5=strong, 4=somewhat, 3=neutral, 2=weak and 1=insignificant** to measure the level of significance of the relationship. Fill the measurement scales value in the cell that joins the two factors. And please note that **CG=credit governance, CP=collateral position, CC=credit culture, MC=market condition, EC=economic condition, FC=financial condition and MP=monetary policy**. Cells marked as XXXXXX shows inter-factor relationship and commutative property [e.g., a+b=b+a] of factors relationship, and it should be ignored.

3.1. How are the factors that affect credit monitoring activity and asset quality, as stated above, are related to each other? Please also note that the measurement scale assigned to show the significance level of the relationship between the factors will be used to evaluate the importance of the relationship in determining the relationship between credit monitoring activity and asset quality.

Factors	CP	CC	MC	EC	FC	MP
CG						
CP	XXXXXX					
CC	XXXXXX	XXXXXX				
MC	XXXXXX	XXXXXX	XXXXXX			
EC	XXXXXX	XXXXXX	XXXXXX	XXXXXX		
FC	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	

3.2. Is there any other factor that you think would affect credit monitoring activity and/or asset quality?

3.2.1. Please briefly state them below, if any, for both credit monitoring activity and asset quality respectively.

_____

_____

3.2.2. **Please describe their respective impact**

_____

_____

3.2.3. Please describe the inter-factor relationship and their relative importance in determining the relationship of credit monitoring activity and asset quality.

_____

_____