



ADDIS ABABA UNIVERSITY  
COLLEGE OF BUSINESS AND ECONOMICS  
ACCOUNTING AND FINANCE DEPARTMENT  
(GRADUATE PROGRAM)

Factors Affecting Lending Decision of Commercial Banks in Ethiopia:  
a case study of selected private commercial banks

**By: BINIAM TILAHUN**

A THESIS SUBMITTED TO THE SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA  
UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF MASTER OF SCIENCE IN ACCOUNTING AND FINANC

**Advisor: ABEBE Y. (PHD)**

**June 2018**

## **Declaration**

I, Biniam Tilahun hereby declare that this master research thesis entitled “Factors Affecting Lending Decision of Commercial Banks in Ethiopia: a case study of selected private commercial banks in Ethiopia is my original work, and has not been presented earlier for award of any degree or diploma to any other university and that all sources of materials used for the thesis have been duly acknowledged. I have produced it independently except for the guidance and suggestion of my research advisors.

Name of the student Biniam Tialhun      Date: June 03, 2018

Declared by:

Name: Biniam Tilahun

---

Signature

---

Date

Confirmed by Advisor:

Name: Abebe Yitayew (Dr.)

---

Signature

---

Date

Place of submission: Addis Ababa, June 2018

### Statement of Certification

Here with, I state that Ato Biniam Tilahun has carried out this research work on the topic entitled 'Factors Affecting Lending Decision of Commercial Banks in Ethiopia: a case study of selected private commercial banks in Ethiopia' under my supervision. This research work is original in nature and has not presented for a degree in any university, which all sources of materials used for the study have been duly acknowledged and it is sufficient for submission for the partial fulfillment for the award of Master of accounting and Finance.

Approved by Board of Examiners:

Abebe Yitayew (Dr.)

\_\_\_\_\_

\_\_\_\_\_

Advisor

Signature

Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Examiner

Signature

Date

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Examiner

Signature

Date

## **Acknowledgements**

First and for most I would like to give my glory and praise to the almighty GOD for his priceless concerns and supports all the way through my life.

My warmest gratitude and appreciation goes to my advisor Abebe Y. (PhD), for his professional assistance for the completion of this thesis. Thank Indeed without your support; the successful completion of this study would have been difficult.

I would like to thank also my wife, Serkale Terefe and my little son “Dan” for your caring, support, encouragement and understanding.

Great appreciation is also extended to friends and family who always gave a great support during this research.

# Table of Contents

<b>Chapter One</b> .....	<b>1</b>
<b>1. Introduction</b> .....	<b>1</b>
1.1 Background of The Study .....	1
1.2 Statement Of The Problem .....	3
1.3 Research questions .....	4
1.4 Objectives Of The Study .....	5
1.4.1 General object of the study .....	5
1.4.2 Specific object of the study.....	5
1.5 Hypothesis of the study .....	5
1.6 Significance of the Study.....	6
1.7 Delimitation of the Study.....	6
1.8 Limitations of the Study .....	7
1.9 Organization of the Study.....	7
<b>Chapter Two</b> .....	<b>8</b>
<b>2. Literature Review</b> .....	<b>8</b>
2.1 Theoretical Literature review .....	7
2.1.1 Role of Commercial Banks.....	8
2.1.2 Bank lending .....	11
2.1.3 Lending Models .....	12
2.1.3.1 The CAMPARI Model .....	12
2.1.3.2 The Credit Scoring Model .....	13
2.1.3.3 The 5 C's credit.....	14
2.1.3.4 The 5P's .....	14
2.1.3.5 LAPP Method .....	14
2.1.3.6 Financial Analysis and Previous Experience Methods (FAPE) .....	15
2.1.3.7 Credit risk rating model .....	15
2.1.3.8 Other Models .....	15
2.1.4 Factors of the models.....	16
2.1.5 Deposit and Loan and advance of Commercial Banks.....	20

2.1.5.1	Deposit mobilized by commercial banks .....	20
2.1.5.2	Lending Activities of commercial banks .....	20
2.1.5.3	Outstanding Loan and advance .....	20
2.1.5.4	Nonperforming loans .....	20
2.2	Empirical literature .....	21
2.3	Conclusion and Gap analysis.....	25
2.4	Conceptual framework.....	26
<b>Chapter Three</b>	.....	<b>27</b>
<b>3. Research Methodology and Research Design</b>	.....	<b>27</b>
3.1	Research Methodology .....	27
3.2	Population of the study .....	27
3.3	Sample size .....	27
3.4	Data and data collection instruments.....	28
3.5	Data Presentation .....	28
3.6	Data Analysis.....	29
3.7	Ethical Consideration.....	29
<b>Chapter Four</b>	.....	<b>30</b>
<b>4. Data Presentation and Analysis</b>	.....	<b>30</b>
4.1	Data Presentation and analysis .....	30
4.1.1	Results of data gathered from questionnaire .....	30
4.1.2	Background information of respondent .....	30
4.1.3	Analysis of data collected .....	33
4.1.3.1	Lending Model and their factors.....	33
4.1.3.2	Hypothesis Testing .....	40
<b>Chapter Five</b>	.....	<b>48</b>
<b>5. Summary, Conclusions and Recommendations</b>	.....	<b>48</b>
5.1	Summary.....	48
5.2	Conclusions .....	51
5.3	Recommendations.....	52

**Bibliography / Reference**

**Annexes**

### List of tables

Table: 1 Summary of the six Lending Methods and its factors .....	19
Table 2: Frequency distribution of respondent by Educational level and Frequency Percent .....	31
Table 3: Frequency distribution by current position Positions and Frequency Percent .....	32
Table 4: Frequency distribution of respondent by Work experience .....	32
Table 5: Credit related work expectance of the respondents .....	33
Table 6: Internal Risk Grading of the banks .....	34
Table 7: Credit risk grading and classification .....	35
Table 8: Factors of The 5C's Credit with mean values .....	36
Table 9: Factors of LAPP lending Model with their mean values.....	37
Table 10: Factors of Five P's lending Model with their mean values .....	37
Table 11: Factors of CAMPARI with mean values .....	38
Table 12: Factors of FAPE with mean values .....	39
Table 13: Factors of IRG with mean values .....	39
Table 14: Availability and applicability of the lending Model.....	40
Table 15: ANOVA Table For The 5C's Credit .....	42
Table 16: ANOVA Table for LAPP .....	43
Table17: ANOVA Table for FAPE .....	44
Table 18: ANOVA Table for Five P's .....	45
Table 19: ANOVA Table for CAMPARI.....	46
Table 20: ANOVA Table for IRG .....	47

## **Acronyms and Abbreviation**

**5 C's:** Character, Capacity, Capital, Collateral and Conditions

**5'Ps:** People, Purpose, Payment, Protection and Prospective (Plan)

**AIB:** Awash international bank

**BOA:** Bank of Abyssinia

**CAMPARI:** Character, Ability to Pay, Margin of Profit, Purpose of the Loan, Amount, Terms of Repayment and Insurance

**CBB:** Construction and business bank

**CBE:** Commercial bank of Ethiopia

**CRA:** Credit Reporting Agencies

**DB:** Dashen Bank

**DBE:** Development Bank of Ethiopia

**FAPE:** Financial Analysis and Previous Experience

**GDP:** Growth Domestic Products

**GTP II:** Growth and Transformation Plan II

**IRG:** Internal Risk Grading

**LAPP:** Liquidity, Activity, Profitability, Potential

**MoFED:** Ministry Of Finance and Economic Development

**NBE:** National Bank of Ethiopia

**NIB:** Nib international bank

**NPL:** Non Performing Loan

**PACT:** Person, Activity, Collateral and Terms

**PARSER:** Person, Amount, Repayment, Security, Expediency and Remuneration.

**PARTLAMPS:** Purpose, Amount, Repayment, Time, Laws, Accounts, Management, Profitability, and security.

**UB:** United Bank

**WB:** Wegagen Bank

## **Abstract**

*This research study was conducted with the aim of identifying and examining the lending models or customer specific factors and their most considered factors by some selected private commercial banks in Ethiopia while evaluating and approving their customer loan requests . It also tries to find whether the banks differ in their use of these models. The study covered four private commercial banks namely, Dashen Bank (DB), Awash International Bank (AIB), Wegagen Bank (WB) and Nib international bank (NIB). These banks were selected based on their share of contribution for annual disbursement in the economy in the year covering from (2011/2012 to 2015/2016). During the period they were the top four private banks which contribute 5% and above from the average annual new disbursement. In order to address the objectives of the research a questionnaire was designed and filled by randomly selected credit performer at the head office and district level. Descriptive statistics and analysis of Variance or ANOVA test have been used to draw conclusions. The research found that the selected banks use various types of lending models in evaluating credit applications. The average percentages were used to find out the elements the banks concentrate most in each method, and it was found that the banks consider most the collateral, capital, capacity, liquidity, profitably, debt ratio and credit track records. Generally they most think about how the money can be returned back and how much security, collateral or protections are available. On the other hand, they do have least consideration on management quality of the applicant, operational ratios, condition of the economy and the industry, purpose, prospect or plan. It was also found through hypothesis testing that the application of lending Model in the banks under consideration is different. Thus the banks in the study should have reasonable risk appetite and improve the level of consideration for business operational analysis. Besides, they should also make sure that the benefit of overriding the lending principles out weight the potential default risk.*

**Keywords:** *Lending Models, the 5C's, the 5P's, CAMPARI, LAPP, IRG, FAPE.*

# Chapter One

## 1. Introduction

### 1.1 Background of The Study

The history of banking in Ethiopia goes back to the turn of a century ago, when, in 1905, the Bank of Abyssinia was established in Addis Ababa, while Menelek II was in charge of ruling the country. It was for the first time that banking had been introduced in Ethiopia. National Bank of Egypt had been entrusted of the project, the new institution was chartered in Cairo and its shares were subscribed in a number of countries besides Ethiopia. The Bank of Abyssinia was given a 50-years concession and was engaged in issuing notes, collecting deposits and granting loans, but its clients were mostly foreign businessmen and wealthy Ethiopians (Arnaldo 2003)

A few years later, the Emperor disappointed by the performance of the bank which was mainly devoted to profit-making rather than promoting economic development then supported the establishment of a wholly Ethiopian bank, the Société Nationale d'Ethiopie pour le Développement de l'Agriculture et du Commerce. In 1930, Besides, Haile Sellassie, could not accept that the country's issuing bank was foreign-owned then he had reached on conciseness with National Bank of Egypt and decided liquidation of the Bank of Abyssinia through acquisition. . As a replacer he established a new bank in 1931, the Bank of Ethiopia, which operates under Ethiopian Government control, and retained management, staff, premises and clients of the old bank. Italian occupation in 1936 brought the liquidation of the Bank of Ethiopia (Arnaldo 2003).

During (1936-1941) wherein Italian colonialist occupied the county, the banking activity was relatively expanded. Most of the banks that were operating during the period were Italian banks namely, Banco di Italy, Banco di Roma, Banco di Napoli, Banco Nazionale, Casa de Creito and Society Nazionale di Ethiopia. After independence from Italy's brief occupation, where the role of Britain was paramount owing to its strategic planning during the Second World War, Barclays Bank was established and it remained in business in Ethiopia between 1941 and 1943. (Degefe, 1995 cited in Alemayehu, 2006).

Before the Derg regime (1974 through 1991), there were private and state owned banks operating in the country such as CBE, AIDB (DBE), and HSB (CBB). By then, all financial institutions

including banks were nationalized. After 1992, after the removal of controls and restrictions in the financial sector, private banks, insurance companies and micro finance institutions has joined the market.

As of Jun 30, 2016, the number of commercial banks operating in the country reduced to 17 due to merger of CBB with CBE, of which one is owned by the government and the remaining 16 are privately owned commercial banks. The number of total banks branch in the country reached 3,187 from 2,693 last year.

They collect resources from depositor and disburse to investors, in the process, the supply and demand of finance facilitates. Mega projects can fulfill their financing needs through loans and advances. Businesses and small traders also easily satisfy their financial needs. Individuals may also save from their income for future investment or for financial security with relatively low risk. Money transfers and business transactions also flow well, if there is well organized and developed financial industry.

Loan and advance is one of the major revenue generating assets in the balance sheet of commercial banks. The way of creating this asset is passing lending decision on the customers' loan applications. However before deciding on the loan request of the customer, depending on the type, the amount requested, the purpose to be used and any other factors banks consider internal and external factors such as the legitimacy of the borrower, the amount of capital invested by the applicant from own source, the collateral offered and past credit track records of the customer and others. Nelson & Victor (2009)

According to Korwa and Richard (2008), banks attach considerable importance to screening loans through stringent lending principles requirement for the following reasons: to screen out borrowers that is likely to default, to add an incentive for the borrower to repay the loan, to offset the cost of a loan default and thereby to reduce the lending risk.

The determinant factors of the Ethiopian commercial banks lending behaviors have been studied by various researchers. (Amano 2014) has tested and confirms the effectiveness of the common determinants of commercial banks lending behavior and how it affects the lending behavior of commercial banks in Ethiopia. The study did not cover the customer specific factors its focus was only to banks' specific factors of the lending behavior. (Berhanu 2015) also investigated the

determinants of lending decision of private commercial banks in Ethiopia and the impact of those factors that significantly affects the lending decision on the financial performance of the bank. He also focused only on the bank-specific and macroeconomic determinants of lending decision.

In light of the above, this research investigates and identifies customer specific factors that affect the lending decision of four selected private commercial banks in Ethiopia and identifies which factors of the lending models most affect their lending decision and to check the consistency of the lending models and their variables among the selected banks.

## **1.2 Statement Of The Problem**

The financial sector of the country needs to play its vital role in the growth of the country's economy by facilitating the flow of fund from surplus unit to deficit unit. It is achieved through mobilizing fund from the public in the form of deposit and lending to the customers who are in need of it. It is a major function of banks and one of the main sources of income to every banking institution. However, in the course of lending most of the banks incur bad debt or non-performing assets which lead to losses affecting the bank's profitability. This is attributable to noncompliance with lending principles and practices from banking officials (Yushau, 2001). Furthermore, all banks should perform lending activities in compliance with prudent written lending standards as approved by the banks' management (NBE SBB-43-18).

Birhanu (2016) investigated determinates of lending decisions and their impact on financial performance of commercial banks in Ethiopia. It was conducted on bank specific factors and found that Liquidity ratio, Capital adequacy ratio, Inflation rate and gross domestic product had positive and statistically significant effect on banks' lending. On the other hand nonperforming loans, Cash reserve requirement and lending interest rate also had negative and statistically significant effect on banks' lending. Volume of deposit had positive but insignificant effect on banks' lending. Therefore, he concluded that banks' lending had an impact on the financial performance of private commercial banks in Ethiopia."

Amano (2014) also investigated the effect of bank specific and macroeconomic factors on bank lending behavior of commercial banks. He found that volume of deposit and bank size had positive and significant impact on loan and advance. Liquidity ratio and interest rate had negative and significant impact on loan and advance. Cash reserve requirement, and inflation

rate had positive and significant impact on loan and advance but the coefficient sign was not as expected. Real GDP growth rate had statistically insignificant impact on banks' loan and advance

As indicted here above, the studies did not cover the other aspect of lending activities which deals with customer specific factors. However, they are equally important and need to be studied.

Besides, in practice different and/or opposite decisions may be given for the same loan application by different banks. One may accept the request partially or fully the other may also completely reject the request by the ground of factors considered. Thus, the researcher believes that customer specific factors that lead lending decision should be studied especially as to identification of employed standard principle of credit, its uniformity among the Banks and to what extent the factors affect decision.

In the process of conducting this research, the application and lending decision models of the selected banks have been evaluated. The uniformity between the banks as to application of the lending model is also tested to each model separately using variance analysis (ANOVA) testing.

### **1.3 Research questions**

Eventually, the study addresses the following research questions.

- What are lending models in use by the selected Commercial banks and how does their factors' affect lending decisions?
- Which customer specific factors most affect the selected private commercial banks' lending decisions?
- Are there any significant differences among the subject commercial banks as to lending models and their factors in use?

## **1.4 Objectives Of The Study**

### **1.4.1 General object of the study**

The general objective of the study is to identify and investigate lending models, customer specific factors most affecting lending decision of some selected private commercial banks in Ethiopian and to evaluate the uniformity between the banks in using the lending models.

### **1.4.2 Specific object of the study**

- To identify the lending models and its factors in use by selected commercial banks.
- To identify customer specific factors most affect lending decisions of the banks' under the study.
- To examine the applicability of the lending models in the credit appraisal and evaluation process.
- To evaluate the uniformity of the lending models among the selected private commercial banks.

## **1.5 Hypothesis of the study**

In order to achieve the last specific objective of the study and thereby address the purpose of the research at full, the following hypothesis has been drawn to answer the question. Are there any significant differences among the subject commercial banks as to lending models and their factors in use?

**H0:** The Banks use lending Model in the same way.

**H1:** The Banks use lending Model in different ways.

## **Significance of the Study**

Upon successful accomplishment of the study, the findings, conclusions and recommendations help the banking industry in general and each commercial bank included in the study in particular. The lending decision is important, because granting of loans is considered possible cause to lead Banks and their clients into bankruptcy, so the customer specific factors affecting the lending decision must be studied. Eventually, the study puts the most important factors affecting the lending decision of commercial banks in front of decision makers. This enables the banks to enhance lending decision and thereby improve asset quality.

The National Bank of Ethiopian may also use the research result for its supervision activities. It also enables any reader to understand currently employed lending Models of the selected commercial banks and to that extent it gears their lending decision.

Furthermore, it serves as an input for further research in the sector regarding lending model application and its factors most affecting the credit granting activates of commercial Banks in Ethiopia.

### **1.6 Delimitation Of The Study**

This research covers commercial banks which have been in operation for the last ten years and have been active in lending activates. As five years data (2012-2016) obtained from national bank of Ethiopia depicts, out of the total average new disbursement made per annum 7 (seven) banks registered a percentage share ranging from 4% to 56%. The other ten commercial banks contributed 2% and below. Thus due to time and resources constraint, the researcher decided to consider only private commercial banks which contribute 5% and above to the lending activity of the banking industry so that the study covers only four banks namely DB, AIB, NIB and WB.(Annex1)

This study is also delimited to evaluate and assess 6 (six) commonly used lending Model and their factors affecting lending decision of the banks. They are CAMPARI, The 5C's credit, the 5'Ps, Internal risk grading, LAPP and FAPE.

## **1.7 Limitations of The Study**

Most of the banks' policy and procedure documents are not accessible to external party due to confidentiality. Thus, it is limited to credit performers' personal perception, experience and understanding. The access restriction to evaluate the detail lending policy and procedure manuals of the bank against the lending Model and their factors may hinder the research findings. However, the researcher exerts maximum effort to obtain and ensure genuine and adequate data from the respective Banks.

## **1.8 Organization of the Study**

This thesis was organized in five chapters. Chapter one provided the general introduction about the whole thesis. Chapter two described the review of related literatures. Chapter three provided detail description of the methodology employed in the thesis.

Chapter four contains data presentation, analysis and interpretation. Finally, the last chapter concluded the total work of the thesis and gave relevant conclusions and recommendations based on the findings.

## **Chapter Two**

### **2. Literature Review**

#### **2.1 Theoretical Literature review**

##### **2.1.1 Role of Commercial Banks**

Banking industry is one of the growing industries of Ethiopia. As of Jun 30 2016, there were two government owned and sixteen private commercial banks which operate in direct supervision of the National Bank of Ethiopia (NBE). NBE is a financial supervisory body in Ethiopia, which closely monitor the performance and safety of banking industry.

Kannan, & Sudalaimuthu (2016) in their study categorizes the commercial banks in Ethiopia in to three based on their years of operation in the industry. The first category constitutes public banks namely commercial bank of Ethiopia (CBE) and construction and business bank (CBB), the later already merged with the former. The second category holds old private banks which had been in operation prior to year 2000. They are six in a number, Namely Awash international bank (AIB), Dashen Bank (DB), Bank of Abyssinia (BOA), Wegagen Bank (WB), United Bank (UB) and Nib international bank (NIB). The rest ten banks have been referred as new private Banks and fall under the third category.

Performance of financial industry has direct effect on the wellbeing of a country economy (Levine, R.1998). When the sector grows up the economic outlook outshine, on the contrary, the effect comes visible even in the life of individuals. Considering the banks' role in the economy, the Ethiopian government has embraced both government and privately owned banks in its second Growth and Transformation Plan (GTP II). The second development plan introduced two years ago enumerates the expected contribution of the banking sector to be 30% and 25% annual deposit and branch expansion growth respectively. In recent years, both government and privately owned banks focused on increasing their branch expansion and resources mobilization so as to reach their customers and thereby increase their competitive advantage in the industry and maximize their profit. Having many branches across the country helped them to mobilize the resources (NBE 2015/2016) and be accessible to their customers and thereby able them to easily transfer the fund from deficit unit to the surplus through lending.

Commercial banks are financial service providers to the general public, companies and business units and thereby ensure social and economic stability and facilitate sustainable economic growth of a country. Among others, credit creation is the most significant function of commercial banks (www.wikipedia.org)

As the study on commercial banks in Ethiopia indicates, deposits, investments, asset, reserve and capital have significant positive impact on economic growth of Ethiopia on the other hand loan and advancement and profit has no significant contribution the Ethiopian economic growth. Fikru (2013)

Banks play a significant role in modern banking and are considered the most important enabler of financial transactions as well as the principal source of credit in any country's economy (Rose, 2002). They are the custodians of a nation's money, which are accepted in the form of deposits and paid out on the client's instructions Harris, (2003). Lending, a fundamental function of the activities of the banking sector involves the allocation of funds by the bank to a customer at a cost (interest), repayable within a stipulated time. Valdez (2002) set out that the principal activity of banks are no longer limited to the taking of deposits and providing credit (lending) but has expanded considerably to various activities.

Functions of commercial banks Commercial banks undertake direct investment in the productive sectors of the economy. Bank financing is needed in an investment project and the decision of investment is made under uncertainty. Once the decision to invest is taken and the project financed, there is the likelihood of getting high expected revenue for the development of the economy. Advisory service is also a function performed by commercial banks. Commercial banks give expert advice to their customers especially those who have huge capital and want to invest. They have research department which undertake research on the various sectors of the economy and therefore advise their customers on the productive or profitable areas for their investment (Khan, 2012).

Khan (2012) identified that Commercial banks play an important role in the process of economic development, which is clear from the following points:

➤ **Capital Accumulation or Formation:** It refers to the increase in the existing stock of capital goods in an economy. Commercial banks remove the capital deficiency by encouraging

saving and investment. The commercial banks can promote capital formation in the country by moving the resources to the productive uses.

➤ **Mobilization of Savings:** there operates vicious circle of poverty in developing countries. So, savings remain at the lowest level. Banks are playing important role in the mobilization of saving by introducing a variety of saving schemes. Banks induce the people to earn interest through saving and it provides various facilities in a country to create a will and power to save.

➤ **Availability of Funds:** An additional point of role of banks is more availability of funds. Poor population has poor resources for the economic development in poor countries so that, the activities like inventions and innovations, research and development and initiatives (effectiveness in responding to challenges) are impossible due to insufficiency of funds in these countries. Banks remove the deficiency of capital by providing different types of funds that leads to economic development.

➤ **Attaining Self Sufficiency:** a major problem faced by the developing countries is burden of foreign debts and dependence on other countries. Commercial banks provide incentive for the entrepreneurs to take risks and to use idle resources for more and better production. So, banks are helpful in attaining self-sufficiency. Banks provide loan to develop the various economic sectors. It results in reduction in imports and increase in exports. Accordingly, banks are very important to achieve the self-sufficiency.

➤ **Implementation of Modern Technology:** economic development without use of advanced and the most up-to-date technology is impossible. Almost in all the economic sectors backward techniques of productions are used due to poverty in third world countries. Commercial banks provide more funds to people to make it possible to use the modern techniques of production. Due to implementation of modern technology, there is increase in production level, decrease in cost and save in time.

➤ **Development of Agriculture Sector:** All the regions and all the sectors of the economy are not equally efficient and developed in an economy. There is big need to develop the backward regions and sectors for the economic development. Banks are playing an important role in the development of rural and agriculture sector.

- **Development of Industrial Sector:** industrial sector is the backbone of the economies in rich nations and also it is still backward of the poor countries. Commercial banks provide different types of loans for the development of industrial sector.
- **Expansion of Market:** Commercial banks help in the expansion of market. They help in the formation of sound economic infrastructure in order to raise living standards and to expand trade and commerce of an economy. Commercial banks cause development of industrial as well as agriculture sector. Accordingly, there is expansion of market that results in economic development.
- **Research and Development:** Commercial banks, sometimes, provide finances for research and development, which leads to inventions and innovations. Various institutes in developing countries are operating by the loan provided by the banks. Modern techniques are established and these are applied to economy in research institutes. Due to use of modern techniques of production, better quality and more quantity is produced which leads to improve the living standard of population.

### **2.1.2 Bank lending**

As one of their functions, banks lend money to both physical and jurisdiction persons. They charge a certain interest rate on these loans, which represents the earning used to pay expenses such as office rent employees salary and wage and other administrative expenses and as dividend for their share holders.

Bank finances different groups in the economy, manufacturers, domestic trade and service givers, importers, exporters, real-estate developer's consumers and other depending on the banks credit availability. The ways in which banks allocate their fund strongly influence the economic development on a country. Every bank bears a degree of risk in its granting of credit and without exception every bank expectances some loan loss when certain borrowers fail to repay their loan. Whatever the degree of the risk taken, loan loss can be minimized through highly professional organization and management of lending functions. Banks have to be vigilant in their lending decisions so as to avoid loan losses and the accumulation of non-performing loans (Asad 2014).

Banks need to concentrate on sectors that are performing well and minimize lending to those sectors which have high risk that already recorded a significant amount of non-performing loans in some banks (Habtmu 2015).

According to (Asad 2014) the composition and quality of a bank's loan should be reflected in its loan policy, the loan policy sets out the bank's lending philosophy and specific procedures and means of monitoring lending activities. The written loan policy should serve to obtain the following three results:

- Produce sound and collectable loans
- Provide profitable investment of bank funds
- Encourage extensions of credit that meet the legitimate needs of the bank's market.(Asad 2014)

### **2.1.3 Lending Model**

Dankwa and Badu, (2013) identified commonly used lending Model in their study conducted under the title Principles and practice of lending in the banking sector: a case study of some selected banks in Ghana. As they stated in the study Lending Models tend to be very specific in terms of what they consider and how deals can be structured. They are also rather inflexible so as to maintain a certain amount of integrity in the lending policies that have been established in the first place (Brent, 2010). According to Korwa and Richard (2008), banks attach considerable importance to screening loans through stringent lending principles requirement for the following reasons: to identify borrowers that is likely to default; to add an incentive for the borrower to repay the loan; to offset the cost to the lender of a loan default; and, to reduce the lending risk. Some of the commonly used lending Models are discussed underneath:

#### **2.1.3.1 The CAMPARI Model**

One of the oldest Models used by banks to evaluate lending propositions is the CAMPARI. This model looks at a range of aspects associated with lending which covers not just the finance that is being sought but the people who are seeking it. The model provides the banker with a tried and trusted model for credit analysis (Philip, 2003). It assesses the borrower on the basis of character, ability to pay, margin of profit, purpose of the loan, amount being requested, the terms of repayment and the insurance in case of default.

The CAMPARI Model represents 7 variables that the bank can use to evaluate credit applications. Some of them are similar to the 5C's, and some to the 5P's, (Business coaching 2008).

### 2.1.3.2 The Credit Scoring Model

A credit score is a numerical expression based on a statistical analysis of a person's credit files, to represent the creditworthiness of that person. A credit score is primarily based on credit report information typically sourced from credit bureaus ([www.wikipedia.org](http://www.wikipedia.org)).

They are developed by analyzing statistics and picking out characteristics that are believed to relate to creditworthiness. Credit Reporting Agencies (CRA) use different scoring Model for different purposes. Auto financing, for example, could employ a different model than installment loans. Lenders, such as banks and credit card companies in another country, use credit scores to evaluate the loan application in addition to the potential risk posed by lending money to the applicant. This goes a long way to mitigate losses that may arise from non-payment of the loan Lenders thus use credit scores to determine who qualifies for a loan, at what rate.

(Loretta J 1997) stated that Credit scoring is a method of evaluating the credit risk of loan applications Using historical data and statistical techniques, it tries to isolate the effects of various applicant characteristics on delinquencies and defaults. The method produces a “score” that a bank can use to rank its loan applicants or borrowers in terms of risk. To build a scoring model, or “scorecard,” developers analyze historical data on the performance of previously made loans to determine which borrower characteristics are useful in predicting whether the loan performed well. A well-designed model should give a higher percentage of high scores to borrowers whose loans will perform well and a higher percentage of low scores to borrowers whose loans won't perform well. But no model is perfect, and some bad accounts will receive higher scores than some good accounts.

In most scoring systems, a higher score indicates lower risk, and a lender sets a cutoff score based on the amount of risk it is willing to accept. Strictly adhering to the model, the lender would approve applicants with scores above the cutoff and deny applicants with scores below (although many lenders may take a closer look at applications near the cutoff before making the final credit decision).

### 2.1.3.3 The 5 C's credit

This is a model used by lenders to determine the credit worthiness of potential borrowers and it is based solely on the information declared by the applicant to the bank. The system weighs five characteristics of the borrower in an attempt to gauge the chance of default. The 5 c's model emphasizes on the character, capacity, capital, collateral and conditions of the applicant who requires the financial assistance. The concept if correctly applied seeks to evaluate the key criteria of repayment ability, by analyzing the stream of cash flows, the character of financial discipline, the financial health of the borrower and other qualitative factors (Pride, 2008).

### 2.1.3.4 The 5P's

The 5P's is another method of evaluating credit applications. It was developed by the Federal Reserve Center (Fed 2004) in this model of lending, people, purpose, payment, protection and prospective (plan) are factors that would be considered while passing a lending decision.

### 2.1.3.5 LAPP Method

It was developed by Benz (1979) and used more for evaluating corporate credit applications than individual borrowers. LAPP is an abbreviation for the following:  
**1. Liquidity:** which measures the ability of the firm to repay its short term obligations  
Banks use quick ratio or liquidity ratio to measure the liquidity of the firm.

**2. Activity:** which measures the size of the firm and its operations; percentages are used, such as asset turnover, inventory turnover, average collection period, and average payment period.

**3. Profitability:** This measures the profitable of the firm. Some ratio is used such as return on assets, return on equity, gross or profit margin.

**4. Potential:** this measures the resources and strength the firm has, such as financial resources, human resources, management level, and other strength the firm might have.

### **2.1.3.6 Financial Analysis and Previous Experience Methods (FAPE)**

This method depends on analyzing the financial records of the applicants and on its past credit records. The bank analyzes financial statements such as the income statement, Balance sheet, cash flow statement and from these statements computes some ratios, such as the liquidity ratio and profitability ratios such as: ROA, ROE, and operation ratios such as Asset Turnover ratio, and other ratios such as: EPS, Debt Ratio,.....etc. From these ratios the credit analyst can evaluate the firm and decide if it is credit worthy or not, Abu Karsh (2005). This method is usually used in addition to some of the above methods and banks do not depend on it alone, because some information is lacking, especially about the customer's attitude and past experience or Credit Records.

### **2.1.3.7 Credit risk rating model**

As described by McDonald (2000) internal credit risk ratings are summary indicators of the degree of risk inherent in institutions' and individual credit exposures. In combination, credit ratings also provide a useful snapshot of the overall quality of an institution's credit portfolio. A credit rating represents an assessment of the risk of loss from the failure of a given counterparty to meet debt servicing and other payment obligations on a timely basis. Other, more traditional, credit assessments tend to be binary in nature covering decisions such as whether or not to accept a new credit proposal or continue lending to a particular borrower. Credit risk ratings seek to be more informative by grouping credit exposures with similar risk characteristics into a larger number of risk grades or buckets.

There is no standard approach to risk rating credit exposures. Credit risk rating systems vary widely among institutions, including in their basic structure, operating design and uses.

### **2.1.3.8 Other Model**

There are other Models that have been equally used in lending along with the above mentioned ones. One of such model uses the acronym PARTLAMPS which emphasizes on the purpose, amount, repayment, time, laws, accounts, management, profitability, and

security. PARSER is also another model that analysis the person, amount, repayment, security, expediency and remuneration. These other Models deal more or less with the same elements and principles. It is up to the individual bank to decide which ones are most useful for its own circumstances or to devise a lending acronym of its own (as cited by Dankwa and Badu, (2013) The Hong Kong Institute of Bankers, 2012, p. 5).

## **2.1.4 Factors of the Model**

### **2.1.4.1 Characters**

Credit analysts assess the character of an applicant which is based on a number of factors. This includes the stability of their career and residence and their willingness to provide complete and accurate information. It helps the bank to analyze the willingness of the applicant to service his/her debt, reputation and integrity and word honor (Kabir, Jahan, Chisty and Dr. Akhtar Hasin 2010)

### **2.1.4.2 Ability to pay(Capacity)**

Capacity is the estimated amount of debt a borrower can carry and is determined by a mathematical calculation known as their Total Debt Service Ratio. It shows the amount of one's gross income dedicated to the repayment of debt and indicates the amount of additional debt one could reasonably afford to carry.

### **2.1.4.3 Margin of finance**

This is the amount the customer contributes from the loan. For any asset financing the customer has to pay a certain percentage of the value of the asset that needs to be financed. Mostly the banks define the level of share that the customer should contribute with different conditions.

### **2.1.4.4 Purpose of the loan**

There should be a specific explanation of how the borrower is going to use the funds. Don't settle for a simple description such as "working capital." The purpose for which the customer planned to use requested amount has its own impact of lending decision.

### **2.1.4.5 Amount being requested**

It is an amount that the customers asking for. It is important to evaluate to avoid over financing or under financing. There are dangers in both. So the banks should verify that

the amount requested as correct. The amount requested should be in proportion to the customer's own reason and contribution.

#### **2.1.4.6 Repayment**

It is important that the source of repayment is made clear, from which income to be repaid. After ensuring the source, projection should be made to verify that there is surplus of fund left over other commitments.

#### **2.1.4.7 Term of Payment**

This is the structure terms of the repayment, which is mainly determined by the cash cycle of the applicant business and the proposed repayment schedule of the customer with justifiable and acceptable ground.

#### **2.1.4.8 Insurance in case of default**

Lenders mostly want to see if the borrower has life insurance or not this is used mainly for long term loans such as housing loans.

#### **2.1.4.9 Credit scoring**

A credit score is a numerical expression based on a level analysis of a person's credit files, to represent the creditworthiness of an individual. A credit score is primarily based on credit report information typically sourced from credit bureaus ([www.wikipedia.com](http://www.wikipedia.com))

#### **2.1.4.10 Capital**

Capital is the measure of a borrower's net worth and demonstrates their ability to manage their finances and accumulate assets while repaying debt obligations. It is calculated by subtracting an individual's liabilities from their assets. Capital reassures lenders by providing alternative ways for the borrower to repay debt other than their monthly income. In addition, it enables the bank to assess the proportional stake from the assets base and willingness of the applicant invests more. Kabir, Jahan, Chisty and Hasin (2010)

#### **2.1.4.11 Collateral (Security)**

Collateral is a pledge or mortgage of property or other assets that an individual uses as security against borrowed monies. The relationship between the value of these assets and the amount of the loan is called the loan-to-collateral ratio and is expressed as a

percentage. It is other secondary sources of loan repayment. Protection is last on the list of P's for good reason.

#### **2.1.4.12 Conditions**

Conditions describe the financial conditions that exist at the time of the loan, including the purpose of the loan, prevailing interest rate and principal amount. This measure is a little more subjective. Lenders need to analyze the factors that affect the borrowers' ability to repay the loan – it could be the overall climate, political stability in the country or local economic conditions.

If the borrower is a company, lenders may evaluate the both the company and industry's financial health to know the circumstances that will affect the company's ability to repay loans. It gives general understating about the customer's earning capacity, cash flow generation from the operation and its operational efficiency. Kabir, Jahan, Chisty & Akhtar Hasin (2010)

**Table:1 Summary of the six Lending Methods and its factors**

	<b>Factors</b>	<b>CAMPA RI</b>	<b>The 5 C's Credit</b>	<b>The 5p's</b>	<b>LAPP Method</b>	<b>PARTLAMPS</b>	<b>PAR SER</b>
1	People						
2	Character						
3	Ability to pay/Capacity						
4	Margin of finance						
5	Purpose of the loan						
6	Amount being requested						
7	Repayment						
7	Term of repayment						
8	Insurance (in case of default)						
9	Capital						
10	Collateral/Protection/security						
11	Condition						
12	Laws						
13	Accounts						
14	Management						
15	Profitability						
16	Expediency						
17	Remuneration						
18	Prospect(plan)						
19	Liquidity						
20	Activity						
21	Potential						

## **2.1.5 Deposit and Loan and advance of Commercial Banks**

### **2.1.5.1 Deposit mobilized by commercial banks**

As per the annual report of NBE 2015/2016, following the aggressive branch opening move of the banks, banking system has mobilized an aggregate of Birr 438.1 billion deposits as of June 30, 2016. The achievement shows 19.3% annual grow from the last year same period. Out of the total liability in the form of deposit 99.7% share goes to commercial banks, of which CBE alone took 66.1 % of the total deposit mobilized. The rest 33.6% is the share of private commercial banks. The remaining 0.3% mobilized by the specialized bank, Development Bank of Ethiopia (DBE).

### **2.1.5.2 Lending Activities of commercial banks**

NBE in its annual report published for the fiscal year 2015/2016 declared that Commercial Banks in Ethiopia disbursed fresh loans to the tune of Birr 81.7 billion in 2015/16, which was 19 percent higher than a year before. Out of the total fresh loans, about 44% was disbursed by private banks and the lion share was injected to the economy by public banks (CBE).

About 29.0 percent of the loans went to industry sector followed by domestic trade (17.1 percent), housing and construction (15.5 percent), agriculture (15.2 percent) and international trade (10.8 percent) and others (12.4 percent)

Among Commercial banks included in this study, DB disbursed (7%) of the loan to the economic during 2015/2016 and the other three AIB, WB and NIB injected 5% each

### **2.1.5.3 Outstanding Loan and advance**

As reported by NBE, as of June 30, 2016 the total outstanding credit of the banking system increased by 20.4 percent and reached Birr 280.3 billion. The share of commercial banks in general reached 87.9 percent. Commercial banks included in this study in particular also have the following share from the total outstanding loan and advance in the banking industry AIB 5.9 Percent, DA 5 Percent, WB 2.9 Percent, and NIB 2.9 Percent.

#### **2.1.5.4 Nonperforming loans**

Habtamu (2015) stated that the issue of non-performing loans (NPLs) has gained attentions in the last few decades. The immediate consequence of large amount of NPLs in the banking system is bank failure.

Commercial Banks as intermediaries of funds are responsible for attracting resources and inject it in the various economic sectors. In the process, banks making profits and encounter with several risks. Nowadays, one of the most related risks is default risk, which leads to increase in non-performing loans (NPLs). According to NBE directives, the amount of non-performing loans should not be more than 5% of remaining facilities of each bank (NBE, 2008). Nevertheless, increasing growth of NPLs amount concerned officials of the banks. If it is above the acceptable level the phenomenon could be named a “national” concern.

Thus, so as to reduce the NPL level of the banks, their lending models need to comprise all the essential bank and customer specific factors that enable the decision makers to make informed and correct decision.

## **2.2 Empirical literature**

For the purpose of this study, Commercial banks lending decision factors can be divided in to two major groups from the lender and borrower aspect. The first group of factors comprises bank specific factors that determine the lending decision of the bank and the other group holds customer specific factors those mainly revolve around the applicant of the bank loan.

The bank specific factors includes, volume of deposit, Bank size, bank’s liquidity, interest rate, cash reserve requirement, GDP, rate of inflation, asset quality, bank’s management style and macroeconomic situations (Peek & Rosengren, 1995) . On the other hand the applicant’s specific factors comprises character, capital, capacity, condition, collateral and other factors depending on the lending model that the bank employed and banks’ practice. M. Abbadi and Abu Karsh (2013)

Various studies have been conducted by different researchers on the first group of factors and their sign of impact and statistical significance also reported internationally and locally in line with their scope of the study.

Olokoyo (2011) conducted a study aiming at testing and confirm the effectiveness of the common determinants of commercial banks lending behavior and how it affects the lending behavior of commercial banks in Nigeria. The researcher employed inferential statistical analysis, and used Secondary data that captured the whole population of commercial banks in Nigeria. In the research, a model was formulated using loan and advance as dependent variable and the other bank's specific variables (volume of deposits, level of domestic and foreign investment, interest rate, and cash reserve requirement and liquidity ratio) as independent variables. As a result, after employing the estimated OLS regression equation, the model was found to be significant and its estimators turned out as expected and it was discovered that commercial banks deposits have the greatest impacts on their lending behavior of commercial banks in Nigeria.

The other researcher (Amano, 2014) did a research aiming at testing and confirms the effectiveness of the common determinants of commercial banks lending behavior and how it affects the lending behavior of commercial banks in Ethiopia. For his data analysis purpose he had used balanced fixed effect panel regression of eight commercial banks in the sample covered the period from 2001 to 2013. Seven factors affecting banks loan and advance were selected and analyzed. Finally the researcher reported that volume of deposit and bank size had positive and significant impact on loan and advance. Liquidity ratio and interest rate had negative and significant impact on loan and advance. Cash reserve requirement, and inflation rate had positive and significant impact on loan and advance but the coefficient sign was not as expected. Real GDP growth rate had statistically insignificant impact on bank's loan and advance.

Regarding the other group of factors, in which the researcher has an interest to do. Even though a lot of efforts have been done, No research has found which cover the customer's specific factors that has been conducted locally. As international experience the following empirical literatures have been reviewed.

Dankwa and Badu, (2013) studied the “Principles and practice of lending in the banking sector: a case study of some selected banks in Ghana” the main objective of the research was examining whether banks follow the laid down principles and practice of lending before granting loan to customers , which has similar agenda with this research. In this study five lending Model were considered namely, CAMPARI, 5 C’s, credit scoring and other specify (PARTLAMPS and PARSER)

While conducting the study the researchers used the descriptive statistics to draw conclusions on the opinions sampled from the respondents. In doing so the objectives of the study quantified in terms of being of a higher or lower order by scoring from 0 to 5. In scoring, 5 point was assigned to excellent, 4 point assigned to very good, 3 point assigned to good, 2 points assigned to fair, 1 point assigned to poor, and 0 point assigned to very poor. Higher values correspond to better principles and practice of lending and lower values correspond to poor principles and practice of lending. The parts of the data gathering instrument were scored to provide information that contributed to the overall solution of the research problem. The data was analyzed using tables and frequencies with the aid of Microsoft Excel.

Finally they found that the selected banks used various types of lending Model but the commonly used model was the CAMPARI model. Banks also followed and ensured that laid down principles and practice of lending in granting loans were enforced. Adhering to these principles and practices of giving out loans to customers helped the banks to increase its profitability and able to reduce the extent of default.

The other study conducted by M. Abbad and Abu Karsh (2013) with the objective of finding the model that banks operating in Palestine use in evaluating customers’ application. They considered the following five lending models in the study the 5C's, LAPP, 5P's, CAMPARI and FAPE and indentified which factor in each model the banks concentrate most. They also tried to figure out whether banks differ in use of these methods and whether they differentiate among customers in using Model. The study mainly used primary data collected through a questionnaire filled at head office level from all of the 17 banks operating in Palestine.

For their data analysis purpose they were employed two kinds of tests: Average percentages and ANOVA test. The former used to find out the factors that the banks concentrate most in each model and the later performed for hypothesis testing. As a result, from the first test, they found that banks in Palestine concentrate more on collateral, credit records, and ability to pay including liquidity and cash flow. They concentrate less on conditions, purpose and product. From the ANOVA test they reported that there is no difference between banks in using the LAPP and 5P's methods but they differ in using the 5C's and FAPE method. They also performed another test and found that banks operating in Palestine treat natural persons and NGO's in the same way in evaluating their credit application; but differ in treating business organizations and artificial persons.

Finally they developed a new model called PACT: representing Person, Activity, Collateral and Terms. Each variable contains several elements and a weight (score) for these elements were estimated to make them easy to use by the banks credit managers.

Joshua (2010) in his study conducted in Kenya with the objectives of ascertaining the use of the 7Cs credit appraisal model and its effect on the level of non performing advances of commercial banks, found that commercial banks in Kenya use the 7Cs credit appraisal model in credit risk, evaluation, assessment and appraisal processes and it has enabled them to reduce the level of nonperforming loans. Capacity was found to be the most significant of all the credit appraisal variables followed by character, condition, common sense and control in that order. He used a semi-structured questionnaire to bank managers and analyzed through factor analysis, ratios analysis, inferential and quantitative statistics using SPSS.

## 2.3 Conclusion and Gap analysis

Lending decision is among one and very crucial activities of commercial banks. As a custodian for public money they are responsible to safely facilitate the follow of funds from the surplus unit to the deficit. They have to be vigilant in their lending decisions so as to avoid loan losses and the accumulation of non-performing loans (Asad 2014). Having minimal non performing loan also helps them to augment their profitability by reducing the amount of provisions that has to be accounted for the bad loans. Besides, the ways in which banks allocate their fund strongly influence the economic development on the country.

As can be understood from the various literatures reviewed here above, banks should clearly understand all factors that have to be considered in their lending decision and to what extent they affect the outcome of the decision. Generally as the above theoretical and empirical literatures review reveal many factors affect the banks' lending decision. For the purposes of clear understanding the researcher categorized the factors as Bank specific factors and customer specific factors.

Regarding bank specific factors, various studied have been conducted by different researchers on different countries of banking industries including Ethiopian. As the result, volume of deposit and bank size had positive and significant impact on loan and advance. Liquidity ratio and interest rate had negative and significant impact on loan and advance. Cash reserve requirement, and inflation rate had positive and significant impact on loan and advance but the coefficient sign was not as expected. Real GDP growth rate had statistically insignificant impact on bank's loan and advance (Amano, 2014).

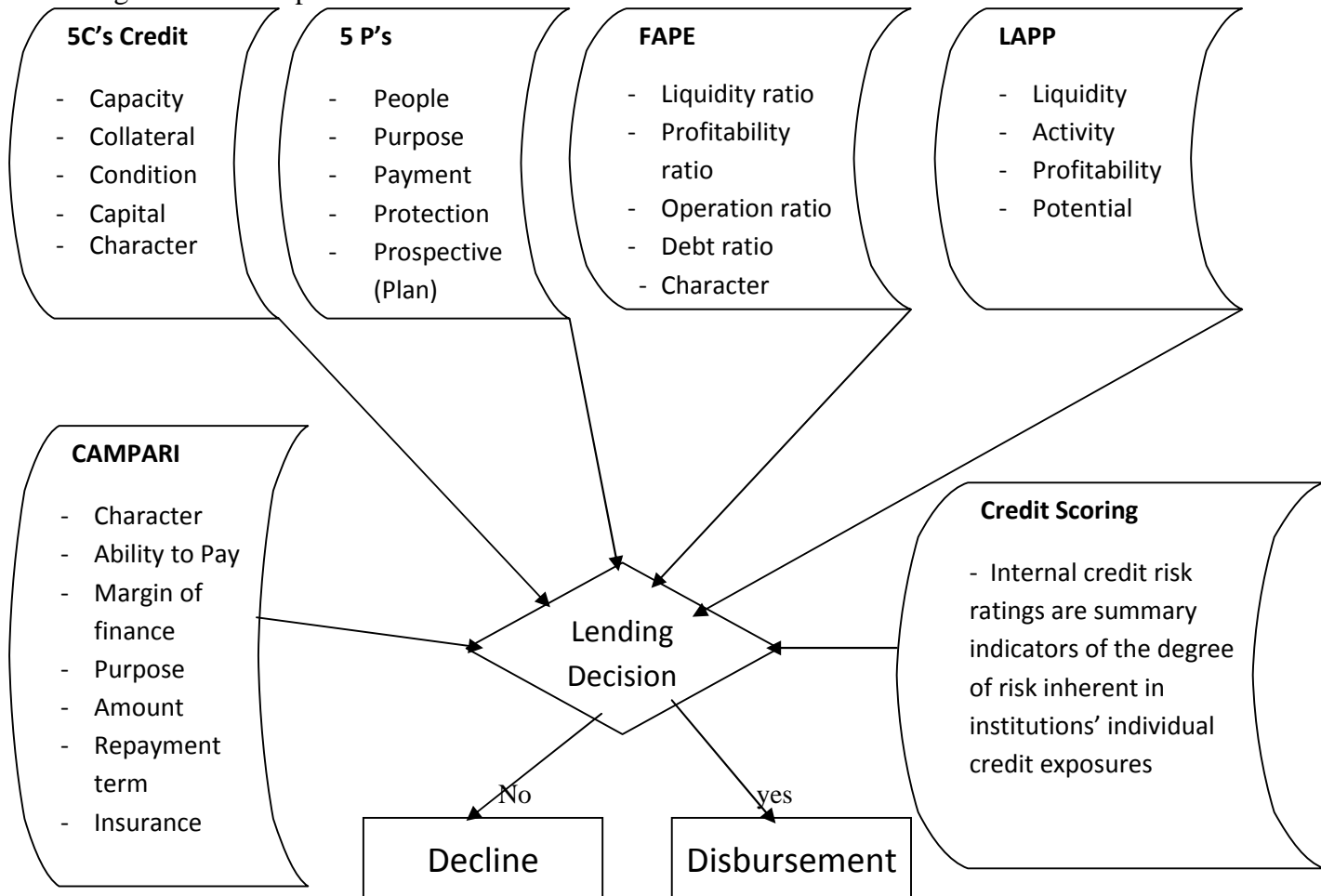
On the other hand, the customer specific factors (lending Model) and their extent effect on lending decision have also been studied at various countries. However, the researcher has found no empirical studies conducted in Ethiopia that emphasis on the topic.

Therefore the objectives of this research is to fill the knowledge gap as to lending decision application, the uniformity across the selected banks and which customer's specific factors are most affecting the banks' lending decision.

## 2.4 Conceptual framework:

The researcher has portrayed the underneath conceptual frame work that constitutes lending Models and their customer specific factors those affect the lending decision of the banks. Finally it leads to disbursement process or rejection communication.

Figure 2:1 Conceptual framework:



Drawn by the researcher

## **Chapter Three**

### **3. Research Methodology and Research Design**

#### **3.1 Research Methodology**

This chapter brings out the data research methodology used in the study taking into consideration the following aspects: research design, the population, the method of data collection and how the data collected have been analyzed.

In order to achieve the above objectives of the research, a descriptive analysis and analytical approach have been used. The descriptive approach employed by researcher to address the first two research questions which quest answers for the use of lending Model by the banks and identification of factors most affect lending decision. The analytical approach also used to test the hypothesis formulated to evaluate the uniformity of the lending Model utilization and its factors among the banks in the study, in doing so, variance analysis or ANOVA testing has used in SPSS.

#### **3.2 Population of the study**

The population or participants of this research are four selected private commercial banks in Ethiopia which has been in operation for the last ten years and active in lending activities. These includes Awash International Bank (AIB), Dashen Bank (DB), Wegagen bank (WB) and Nib International Bank (NIB) which took more than 5% and above share of annual lending during the period covering from 2011/2012 to 2015/2016. The above selected private commercial banks have a share of 5%, 7%, 5%, and 5% respectively. (Annex 1)

#### **3.3 Sample size**

The researcher used Subjective methods of sampling technique to determine the number of sample from each banks in the study. They were selected based on the assumption that they have credit approving and processing exposure. General the overall credit processing in each bank divided in to four sub activities, i.e. customer relationship activities, credit appraisal and analysis, credit administration and credit approval. Besides, all of the banks have four district offices and one head office in Addis Ababa. Thus, So as to include respondents from each credit processing activities on each bank the researcher has decided to take a sample of (4 X 5) 20 from each credit processing center of the banks under the study. As a result 80 questionnaires have been distributed.

### **3.4 Data and data collection instruments**

Both Primary and secondary sources were used to address the issues under the study. The primary data was collected using self administered semi-structured questionnaire, which is randomly distributed to credit performers of the selected banks. The target respondents include credit department managers, credit analysts or loan officers, credit reviewers, customer relationship managers and Branch managers who have direct involvement in the lending activities of in the banks.

Besides, Secondary data source also used like NBE directives issued to supervise the lending activities of the commercial and annual publication of the central bank. The banks' annual reports also reviewed.

### **3.5 Data Presentation**

After collecting the data relevant to the research questions via semi-structured questionnaire, the researcher edited the data so as to avoid errors and omissions. Coding also done in such way that enables to effectively categorize and analyses the data collected in SPSS application, The categorized data, which is carefully and systematically arranged, have been presented in a tables, frequency distribution, arithmetic mean, and ratios,

### **3.6 Data Analysis**

The primary data collected through questionnaire were carefully checked and coded for consistency and entered into the SPSS for descriptive analysis. The relevant and sound conclusion also derived from the organized and presented data. In the way through, the research questions and its objectives have fully addressed.

In order to achieve the objectives of the research, a descriptive and analytical approach was used. A questionnaire was designed and tested before it was used and distributed to the credit performer of the banks. The researcher gathered data from the banks' at Head Office or district office level since responsible for studying and approving the customers' credit applications mostly assigned at this levels.

The data was analyzed by using SPSS program and several hypotheses were tested using analysis of variance or ANOVA.

### **3.7 Reliability Test**

Reliability refers to the property of a measurement instrument that causes it to give similar results for similar inputs. Mathematically, reliability is defined as the proportion of the variability in the responses to the survey that is the result of differences in the respondents. Thus, to evaluate the internal consistency of each factor group obtained, the factors were subjected to reliability test. The assumption behind this approach is that the items of a measure work collectively as a set and should be competent of independently measuring the same construct. The items should be reliable in what they indicate about the concept being measured. The Cronbach alpha was used to measure internal reliability by unit weighting items with salient loadings in a factor where Cronbach's alphacoefficient at 0.5 or higher was considered acceptable (Mokhlis et al., 2008, 2009). These factors produced alpha coefficients of .927, .973,.971,.971,.989 and .978 for CAMPARI , FIVE C'S, FIVE P'S, LAPP, FAPE and IRG respectively. These factors produced alpha coefficients above 0.05 thus indicating high internal consistencies and reliability (Annex 8)

### **3.8 Ethical Consideration**

Initially the researcher has considered ethical issues that is anticipated and described in this thesis. They related to all the phases of the study. Mainly the research outcome helps the banks under the study and will be sources of information for others. Thus, the researcher was not marginalized or disempowered the respondents. While collected the data, the purpose of the study was described to the participants and it was provided with the first part of the questionnaire in writing in order to establish trust and credibility. The researcher did not put the participants at risk .the identify of participants will remain confidential, if the need arise. The data collected will be kept under the custody of the researcher for a reasonable period of time and then discards so that it will not fall into the hands of other researchers who might misappropriate it. The researcher was not also used language or words that are biased against the respondent personality and the banks under the study.

## **Chapter Four**

### **4. Data Presentation and Analysis**

#### **Introduction**

This chapter presents analyzed results and interpreted discussions of the data obtained from the primary source as well as secondary sources. The primary data was obtained from the questioners which are designed to collect the necessary data to answer the research questions. The questionnaires are administered for 80 (eighty) respondents from all selected private commercial banks (Head Office or district Office) on Addis Ababa and some branches of these banks key personnel responsible for appraising and approving the customers' credit applications. Secondary data was obtained from NBE annual reports and its directives in order to get the annual loan dispersed by each by in the study to different economic sector. Hence all data collected from primary data as well as secondary data were analyzed.

#### **4.1 Data Presentation and Data Analysis**

##### **4.1.1 Results of data gathered from questionnaire**

This part has four sections. The first section deals with the respondents' profile. The second section is about the six methods of evaluating the customers' credit worthiness: mainly the 5C's, the 5P's, CAMPARI, LAPP, IRG and FAPE methods the applicability of the lending model and the existence as well as the clarity of the predefined lending model and their applicability in the credit policy and procedure documents are presented in fourth section. The fifth part enumerates the similarities and differences between the banks under the study as to applicability of the lending model in their credit decision using analysis of variance (ANOVA test).

##### **4.1.2 Background information of respondent**

Eighty questionnaires were distributed to the target group of the study. Out of eighty questionnaires distributed, sixty six of them were returned and the rest 11 failed to respond and the other 3 were excluded due to incompleteness, thus the data collection has been accomplished with a response rate of 82.5%. The response is reliable since the respondent was selected based on their duty and responsibility as well as their past experience on credit management and appraisal,

in particular credit analyst expert, credit administrator, loan those directly attached to credit activities and their answer was expected to be reliable.

The demographic characteristic includes job title, level of education, field of specialization and work experience. Table 2 to table 5 below show details of background information of respondent. Due consideration has given to obtain consent from each participant about their participation in the study. It was conducted on voluntary bases and the researcher has respected the participant right and privacy. The finding of the research was presented without any variation from the outcome of the research. In addition the research full acknowledgment to all reference material used in the study.

Table 2: frequency distribution of respondent by Educational level and Frequency Percent

<b>Award</b>	<b>DB</b>	<b>AIB</b>	<b>NIB</b>	<b>WB</b>	<b>Total</b>	<b>%</b>
<b>BA</b>	11	10	14	13	48	73%
<b>MBA</b>	4	4	3	2	13	20%
<b>MSC</b>	2	1	1	1	5	8%
<b>Total</b>	<b>17</b>	<b>15</b>	<b>18</b>	<b>16</b>	<b>66</b>	<b>100%</b>

Source: Owner's Survey 2018

Regarding the respondent educational qualification as indicated on above table-2 (28%) of the respondents are post graduate degree holder and the rest (73%) of respondents are degree holder. the research tries to identifies the respondent by their educational level in order to know the qualification of the respondent to analyze weather their response are pertinent. From this it is possible to conclude that the composition of the respondents include well qualified to explain about the subject matter of the study.

Table 3: Frequency distribution of Respondent by current Positions

<b>Positions</b>	<b>DB</b>	<b>AIB</b>	<b>NIB</b>	<b>WB</b>	<b>Total</b>	<b>%</b>
<b>Credit Analyst</b>	8	6	7	7	28	42.42%
<b>Relation Managers or branch Managers</b>	5	5	5	4	19	28.79%
<b>Credit administration officers</b>	3	3	5	4	15	22.73%
<b>Credit Managers, District managers And/or Directors</b>	1	1	1	1	4	6.06%
<b>Total</b>	<b>17</b>	<b>15</b>	<b>18</b>	<b>16</b>	<b>66</b>	<b>100.00%</b>

Source: Owner's Survey 2018

As shown on the above table -3, from the total respondent 42.42% of them was credit analysts, 28.79 % of the respondents constitute relationship and branch managers, 22.73% of them are credit administration officer and the rest 6% represents directors, District managers and/or credit managers. Such a segregation of the respondent is important to suppose the research choose the right professionals which have direct relationship with the subject matter and in order to gather the necessary information regarding lending principles application of the banks and how much important the lending variables for the credit decision .

Table 4: frequency distribution of respondent by Work experience

<b>Years</b>	<b>DB</b>	<b>AIB</b>	<b>NIB</b>	<b>WB</b>	<b>Total</b>	<b>%</b>
<b>1-4</b>	2	2	3	3	10	15%
<b>5-10</b>	10	10	12	11	43	65%
<b>11-15</b>	5	3	3	2	13	20%
<b>Total</b>	<b>17</b>	<b>15</b>	<b>18</b>	<b>16</b>	<b>66</b>	<b>100%</b>

Source: Owner's Survey 2018

As presented on the above table-4 majority of the respondent (65%) have been working in their respective banks for more than five years but below ten years. among the respondents 20% of them have eleven to fifteen years working experience in the banking industry. The rest 15% acquired one to four year experience. In general, more than half of the respondents have been working for more than 5 years in banking industry, which indicate that their long period of experience contributes to both the reliability and validity of the information they offered.

At the same time as portrayed in the below table -5, 48 percent of the respondent has more than five but below ten years work experience in the credit processing activities, which validate the appropriateness of the respondent to the topic under the study.

Table 5: Credit related work experience of the respondents

Years	DB	AIB	NIB	WB	Total	%
1-4	7	7	10	10	34	52%
5-10	10	8	8	6	32	48%
<b>Total</b>	<b>17</b>	<b>15</b>	<b>18</b>	<b>16</b>	<b>66</b>	<b>100%</b>

Source: Owner's Survey 2018

### 4.1.3 Analysis of Data collected

#### 4.1.3.1 Lending Model and Their factors

As a modern and organized lending institution, banks are expected to employ one or more lending Models for their lending decisions. Depending on principles, management philosophies adopted and any other basis, banks can choose their credit policies that express the level of risk they are ready to accept. They use different Models that determine and shape their lending decision. In line with this, all banks under discussion except AIB have formulated their own internal risk rating with the aim of proactively manage credit risk and improve asset quality of the banks. It is also designed to ensure the customer recruitment and selection, acquiring, extension and retention activities do have multiple factor analysis where in the decisions to be free of biased single factor and sentimental orientation.

**Table 6: Internal risk grading of the Banks'**

No	DB		AIB	
	Factors	Weighting point out of 100%	Factors	Weighting point out of 100%
1	Financial Position	25	Financial strength	Not defined
2	Financial performance	15	Character	
3	Cash Flow Position	15	Credit relationship	
4	Credit Profile	15	Business management	
5	Organization and Management	10	Business and industry attractiveness	
6	Collateral Position	20	Collateral strength	
	WB		NIB	
1	Financial Management /position	25	Financial Risk	30
2	Loan Account performance	35	Account performance	25
3	Character and relationship	15	Relationship with the bank	10
4	Business management	15	Collateral Risk	35
5	Business and industry risk	10	<b>Total scoring</b>	100

Source: Owner's Survey 2018

As the above table depicts, Dashen Bank employs six different factors for its internal risk grading determination. It gives the highest weighting point for the customer's financial position followed by collateral position. On the other hand, the bank least consider the organization and management competence of the borrower. The other three variables have equal weight for the risk grading.

As the data collected reveals WB consider five parameters to determine the internal risk grading of the customers. It gives the highest point for loan account performance then next to financial management and position of the customer. While determining the IRG, WB least consider the risk related to the business and the industry in which the customer engaged in. It has allotted equal weight to Character, relationship and Business management competence of the credit applicant.

Unlike the other banks in the study, NIB applies only four parameters for its IRG. The model implemented does not give weighting point for business Organization, Management and industry related risk. It gives the highest point for collateral risk then to financial risk and account

performance of the borrower in their order. However the bank gives least consideration for relationship of the customer with the bank.

Regarding to AIB, it has six different standard parameters to determine customer’s grading however the bank does not assigned weighting point for each variable.

Finally, based on the final score achieved, the banks determine credit risk grade and risk classification of their borrowers in line with the following decision rules.

**Table 7 Credit risk grading and classification of the banks**

DB			NIB			WB		
Risk Score	Risk Grade	Risk classification	Risk Score	Risk Grade	Risk classification	Risk Score	Risk Grade	Risk classification
80.01-100.00	A	Preferred	85	A	Bankable	$\geq 85$	A	Bankable
60.01- 80.00	B	Acceptable	70 X<85	B	Acceptable	70 X<85	B	Bankable
25.01- 60.00	C	Acceptable with mitigation	50 X<70	C	Safe	55 X<70	C	Bankable
10.00- 25.00	D	Acceptable with mitigation	35 X<50	D	Watch list	40 X<55	D	Exceptionally Bankable
<10.00	D	Unacceptable	<35	E	Loss	25 X<40	E	Un Bankable

Source: Owner’s Survey 2018

As table-7 shows, the banks apply different internal risk grading factors in evaluating and approving loan requests. The IRG and its parameters designed by each bank enable them to determine the risk grading of the customers and risk classification. Then finally, depending on the customer’s risk grading and risk classification, the banks decide on the type of loan, the amount to be approved and the safety margin of the collateral.

Customers with risk grade ‘A’ and ‘B’ are mostly received positive response from the banks. When the risk grading of the customers falls in Grade ‘C’ the banks most consider the value and risk of the collateral offered and sufficiency of the safety margin. It means that they accept the

request with risk mitigation. In the case of ‘D’ and ‘E’ as can be seen on the table, the banks under the study do not accept the loan request of the customer unless there exit a situation that demands exceptional treatment.

#### 4.1.3.1.1 The 5C’s Credit

The 5 c’s model emphasizes on the character, capacity, capital, collateral and conditions of the applicant who requires the financial assistance.

Table 8: Factors of The 5C’s Credit with mean values

<b>Lending model</b>		<b>Mean</b>
<b>5C’s Credit</b>	<b>Factors</b>	<b>Max- 5</b>
1	Capacity	3.52
2	Collateral	3.29
3	Condition	2.26
4	Capital	3.38
5	Character	2.56

Source: Owner’s Survey 2018

From the table above, on which **5C's** lending Model and its factors are presented with their mean values, we can see that the selected private commercial banks use capacity, capital and collateral as their main concern for sources of payment and credit decision, while character and conditions are their least concern. This shows that the selected banks highly depend up on the customers’ repayment ability and the collateral strength while passing lending decision.

#### 4.1.3.1.2 LAPP

It is an abbreviation for Liquidity, Activity, Profitability and Potential. In using the Model the lenders access and analysis the customer over all condition with the ratios categorized in the above four factors.

**Table 9: Factors of LAPP lending Model with their mean values**

<b>Lending model</b>		<b>Mean</b>
<b>LAPP</b>	<b>Factors</b>	<b>Max- 4</b>
1	Liquidity	2.95
2	Activity	2.11
3	Profitability	2.64
4	Potential	2.30

Source: Owner's Survey 2018

In the second method (LAPP), the main concerns of the banks are the liquidity and profitability of the firms while using the lending model the credit performers concern regarding to potential or capital is higher than that of the activity which again reflects their concern to get their money back (conservative policies). They are less concerned with the potential or the activity of the firm as compared to the Liquidity and profitability.

#### **4.1.3.1.3 Five P's**

In this model of lending, people, purpose, payment, protection and prospective (plan) are factors that would be considered while passing a lending decision.

**Table 10: Factors of Five P's lending Model with their mean values**

<b>Lending model</b>		<b>Mean</b>
<b>5 P's</b>	<b>Factors</b>	<b>Max- 5</b>
1	People	3.42
2	Purpose	3.38
3	Payment	2.71
4	Protection	3.56
5	Prospective (Plan)	1.92

Source: Owner's Survey, 2018

As portrayed in the above table -8, in using the 5P's lending model the banks concentrate most on protection, this means that the collateral offered to secure the loan requested most affect the lending decision of banks under the study. People, the customer who requested the loan, their

relationship and credit history with the bank also have greater effect on the credit decision than the payment (source of payment, timing, and probability of default) and prospective. In this model the banks have less consideration for the repayment plan that the customers presented while requesting a loan.

#### 4.1.3.1.4 CAMPARI

It assesses the borrower on the basis of character, ability to pay, margin of profit, purpose of the loan, amount being requested, the terms of repayment and the insurance in case of default.

**Table 11: Factors of CAMPARI with mean values**

Lending model		Mean
CAMPARI	Factors	Max- 7
1	Character	6.12
2	Ability to Pay	6.24
3	Margin of finance	3.70
4	Purpose	5.24
5	Amount	3.39
6	Repayment term	2.06
7	Insurance	1.21

Source: Owner's Survey 2018

The **CAMPARI** method is used by the selected private banks to support the other methods, since some variables are duplicated in the method. It was found that banks under the study concentrate more on the ability to pay, character and the purpose for which amount to be used. They are less concerned with insurance and repayment term. These results are also reflecting the conservative policies for extending credit.

#### 4.1.3.1.5 FAPE

Lending institutions use this method in their credit approval process and mainly depends on analyzing the financial records of the applicants and on its past records of the customers.

**Table 12: Factors of FAPE with mean values**

<b>Lending model</b>		<b>Mean</b>
<b>FAPE</b>	<b>Factors</b>	<b>Max- 6</b>
1	Liquidity ratios	3.95
2	Profitability ratios	3.74
3	Operation ratios	2.45
4	Debt ratios	4.17
5	Character	3.29
6	Credit Record	3.39

Source: Owner's Survey 2018

As can be seen in the above table, the selected private commercial banks use FAPE method for their loan analysis, appraisal and credit decision. While applying the method, they give attention to the analysis of income statement and balance sheet through the application of ratio analysis. As the mean values presented in the table show the banks concentrate more on debt ratio, liquidity ratios and profitability ratios of the applicant and less on operational ratios. The lending decision makers give equal weight to Character and credit records ratios while using FAPE.

#### **4.1.3.1.5 Internal Risk Grading (IRG)**

IRG is a credit risk management systems that are designed to have standardized and uniform risk assessment practice to all of its customers. It comprises five basic criteria i.e. Account performance, financial soundness, management quality, banking relationship and collateral

**Table 13: Factors of IRG with mean values**

<b>Lending model</b>		<b>Mean</b>
<b>IRG</b>	<b>Factors</b>	<b>Max- 5</b>
1	Account performance and /or track record of the borrowers	3.39
2	Rating financial soundness, financial performance or position	3.32
3	Management Quality	2.44
4	Banking Relationship	2.45
5	Collateral	3.39

Source: Owner's Survey 2018

The above table shows that the banks use the internal risk management systems aiming at ensure better asset quality. They employ the risk grading system to have standardized and uniform risk assessment practice to all of their customers' credit application and thereby attend better asset quality. Like other Model discussed in the above, the banks under the study most consider collateral, track record and/ or account performance as well as financial soundness, financial performance or position of the applicant. This implies that they think most about getting the money back, while making lending decision. In this model the banks give less consideration for management quality of the applicant and banking relationship compared to the other factors however poor management may ultimately led to default.

#### 4.1.3.1.6 Availability and applicability of the lending Model

**Table 14: Availability and applicability of the lending Model**

Availability and applicability of lending Model		Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total
There is credit policy and procedure which clearly show how the lending Model to be applied	F	3	58	3	2	0	66
	%	4.55%	87.88%	4.55%	3.03%	0	100%
There are time when credit lending canons are overridden by directors, senior management or influential staffs	F	5	51	8	2	0	66
	%	7.58%	77.27%	12.12%	3.03%	0	100%
The bank has clearly defined weighting point for each factors of the landing model in use	F	0	53	0	13	0	66
	%	0	80.3%	0	19.69%	0	100%
The entire credit apprising and approval work flow takes in to account all factors of the lending Model of the bank.	F	0	47	7	8	4	66
	%	0	71.21%	10.61%	12.12%	6.06%	100%

Source: Owner's Survey 2018. 'F' stands for frequency and '%' stands for percentage value

As can be seen on the above, respondents were asked to express the level of their agreement in regard to the availability, clarity and applicability of the lending models in the banks' policy and procedure documents.

Accordingly, 87.87% or 58 out of 66 of the respondents have agreed about the existence of credit policy and procedure which clearly show how the lending Model to be applied in the lending

decision process. However 2 respondents which represent 3.03% of the total respondents disagree on the clarity of the policy and procedure documents. 3 respondent or 4.55% of them are neutral about the matter. Thus, since more than 87% the respondents show their agreement we can say that the banks' policy and procedure documents clearly articulate how the lending Model to be used in the loan application and decision making processing.

Regarding the existence of time when credit lending canons are overridden by directors, senior management or influential staffs, 77.27% of the respondents or 51 out of 66 confirmed that directors, senior management or influential staffs can override the lending model and its factors. Moreover, 7.57% of the respondent also strongly confirmed the management interference as to implementation of the lending Models on the lending decision. On the other hand 2 respondents express non existence of the management interference as to implementation of the lending models. The rest 8 or (12.12%) of respondent are in the position of neither agreed nor disagreed about the management action towards lending Model violation.

In addition to the Model, clarify of each factors weighting point definition in the policy and procedure documents also have been asked. As result, 80.3% of the respondent confirmed the existence of clearly defined weighting point for each factors of the landing models in use and the rest 13 (19.69%) of the credit performer do not agree with existence of clearly defined weighting point for each factors of the landing model in use.

Finally, 71.21% (47) of the respondent agreed that they take in to accounts all factors of the lending Model throughout the credit processing. 10.60% of the respondents are indifferent for the question raised. In contrast, 8 (12.12%) of respondent did not agree with applicability of lending model factors throughout the credit process. The remaining 4 (6.06%) of the respondents strongly disagree with the consideration of the factors of the lending Model of the banks in the entire credit processing work flow.

#### **4.1.3.2 Hypothesis Testing**

In order to fully addressed the research objectives and thereby answer the research question, hypothesis initial formulated has tested. Thus, as described in the research design Analysis of Variance (ANOVA) has been carried out to check whether there is a statistical difference between banks in using the six methods.

## Hypothesis Formulated

**H0:** The Banks use the lending Models in the same way.

**H1:** The Banks use the lending Models in different ways.

In conducting the hypothesis testing, the researcher applied the test in each of the lending Model separately and based on the result in the ANOVA table produced using the SPSS decided the acceptance and rejection of the hypothesis as follows.

### 4.1.3.2.1 The 5C's Credit

**Table 15:ANOVA Table For The 5C's Credit**

		Sum of Squares	df	Mean Square	F	Sig. p-values
Capacity	Between Groups	15.428	3	5.143	2.820	.046
	Within Groups	113.056	62	1.823		
	Total	128.485	65			
Collateral	Between Groups	24.128	3	8.043	5.979	.001
	Within Groups	83.402	62	1.345		
	Total	107.530	65			
Condition	Between Groups	8.675	3	2.892	3.589	.019
	Within Groups	49.946	62	.806		
	Total	58.621	65			
Capital	Between Groups	20.986	3	6.995	4.898	.004
	Within Groups	88.544	62	1.428		
	Total	109.530	65			
character	Between Groups	57.845	3	19.282	10.269	.000
	Within Groups	116.412	62	1.878		
	Total	174.258	65			

As can be seen in the above ANOVA table produced using SPSS, the result show that the F statistics equal to 2.82, 5.97, 3.58, 4.89 and 10.26 for capacity, collateral, condition, capital and character respectively with the corresponding significance of 0.046, 0.001, 0.019, 0.004, and 0.000 in the 5C's method, therefore since the p- values are below 0.05 reject the null hypothesis and accept H1, which means that there was significant differences between the banks. Thus, they

differ from one bank to another in using 5 c's credit lending Model. The test result obtained is consistent with that of M. Abbadi and Abu Karsh (2013) study finding.

#### 4.1.3.2.2 LAPP

**Table 16: ANOVA Table For LAPP**

		Sum of Squares	df	Mean Square	F	Sig.
Liquidity	Between Groups	9.023	3	3.008	3.741	.015
	Within Groups	49.841	62	.804		
	Total	58.864	65			
Activity	Between Groups	26.295	3	8.765	8.771	.000
	Within Groups	61.962	62	.999		
	Total	88.258	65			
Profitability	Between Groups	15.350	3	5.117	4.537	.006
	Within Groups	69.923	62	1.128		
	Total	85.273	65			
Potential	Between Groups	14.796	3	4.932	5.545	.002
	Within Groups	55.143	62	.889		
	Total	69.939	65			

As the ANOVA test for **LAPP** performed using SPSS reveals, the F statistics equal to 3.74, 8.77, 4.53, and 5.54 for liquidity, activity, profitability, and potential respectively with the corresponding significance of 0.015, .000, .006, and .002 values, therefore since all the p- values are below 0.05 there is significance difference between the group means, thus reject the null hypothesis and accept H1, which means that there was significant differences between the banks. Thus, they use LAPP lending Model differently. It is not consistent with M. Abbadi and Abu Karsh (2013) test result. They reported no difference between banks in using the model.

#### 4.1.3.2.3 FAPE

**Table17: ANOVA Table for FAPE**

		Sum of Squares	df	Mean Square	F	Sig.
Liquidity ratios	Between Groups	32.619	3	10.873	4.487	.006
	Within Groups	150.245	62	2.423		
	Total	182.864	65			
Profitability ratios	Between Groups	42.726	3	14.242	5.388	.002
	Within Groups	163.895	62	2.643		
	Total	206.621	65			
Character	Between Groups	37.093	3	12.364	6.160	.001
	Within Groups	124.438	62	2.007		
	Total	161.530	65			
Credit Record	Between Groups	38.796	3	12.932	5.174	.003
	Within Groups	154.961	62	2.499		
	Total	193.758	65			
Operation ratios	Between Groups	50.501	3	16.834	9.330	.000
	Within Groups	111.863	62	1.804		
	Total	162.364	65			
Debt ratios	Between Groups	26.925	3	8.975	5.664	.002
	Within Groups	98.241	62	1.585		
	Total	125.167	65			

As portrayed in the above variances analysis table, the test conducted for FAPE revealed the existence of statistical significance between the groups with F statistics equal to 4.48, 5.38, 6.16, 5.17, 9.33 and 5.66 for liquidity, activity, profitability, Character, Credit Record, Operation ratios and Debt ratios respectively with the corresponding significance of 0.006, 0.002, 0.001, .003, 0.000 and 0.002 values, therefore since all the p- values are below 0.05 there is significance difference between the group means, thus reject the null hypothesis and accept H1, which means that there was significant differences between the banks. Thus, they use **FAPE** lending Model differently. M. Abbadi and Abu Karsh (2013) also reported the difference between the banks as to utilization of the model.

#### 4.1.3.2.4 Five P's

Table 18:ANOVA Table for **Five P's**

		Sum of Squares	df	Mean Square	F	Sig.
People	Between Groups	14.669	3	4.890	3.816	.014
	Within Groups	79.452	62	1.281		
	Total	94.121	65			
Purpose	Between Groups	15.344	3	5.115	2.931	.040
	Within Groups	108.186	62	1.745		
	Total	123.530	65			
Payment	Between Groups	23.934	3	7.978	4.966	.004
	Within Groups	99.596	62	1.606		
	Total	123.530	65			
Protection	Between Groups	14.483	3	4.828	2.884	.043
	Within Groups	103.775	62	1.674		
	Total	118.258	65			
Prospective Plan	Between Groups	23.378	3	7.793	9.074	.000
	Within Groups	53.243	62	.859		
	Total	76.621	65			

Analysis of variances performed for five P's lending Model also showed that there was significance difference between the group means of banks under the study with the F statistics equal to 3.81, 2.93, 4.96, 2.88, and 9.07 for People, Purpose, Payment, Protection, and Prospective Plan respectively with the corresponding significance of 0.006, 0.002, 0.001, .003, 0.000 and 0.002 values, therefore since all the p- values of all factors are below 0.05 I reject the null hypothesis and accept H1, which means that there was significant differences between the banks as to using the **Five P's** lending Model . The test result is not consistent with that of M. Abbadi and Abu Karsh (2013) study finding.

#### 4.1.3.2.5 CAMPARI

Table 19: ANOVA Table for CAMPARI

		Sum of Squares	df	Mean Square	F	Sig.
Character	Between Groups	.356	3	.119	.190	.903
	Within Groups	38.674	62	.624		
	Total	39.030	65			
Ability to Pay	Between Groups	4.237	3	1.412	1.513	.220
	Within Groups	57.884	62	.934		
	Total	62.121	65			
Margin of finance	Between Groups	1.299	3	.433	1.301	.282
	Within Groups	20.641	62	.333		
	Total	21.939	65			
Repayment term	Between Groups	1.604	3	.535	1.373	.259
	Within Groups	24.153	62	.390		
	Total	25.758	65			
Insurance	Between Groups	3.179	3	1.060	4.744	.005
	Within Groups	13.851	62	.223		
	Total	17.030	65			
Purpose	Between Groups	3.292	3	1.097	1.197	.318
	Within Groups	56.829	62	.917		
	Total	60.121	65			
Amount	Between Groups	21.572	3	7.191	5.173	.003
	Within Groups	86.186	62	1.390		
	Total	107.758	65			

As can be seen in the table 17 of Analysis of variances tested for CAMPARI, the banks under the study use the lending Model (CAMPARI) in the same way except as to the amount consideration. because the result found in F statistics equal to 0.091, 1.51, 1.30, 1.37, 4.74, 1.19 and 5.17 for Character, Ability to Pay, Margin of finance, Repayment term, Insurance, Purpose and Amount respectively with the corresponding p-values of 0.903, 0.282, 0.259, 0.005, 0.318 and 0.003 values and all the p-values except for amount reveal that the value are above the level of significant. i.e. 0.05 thus it implies that there was no statically significance in the group means of the bank regarding the application of CAMPARI Model in their credit approving process but they consider the amount requested differently. When compared the above test result with the other studies it is similar with the finding of Denkwa and Bedu,(2013) in which they found the

model as commonly used among local banks in Ghana but it differs with the study result of M. Abbadi and Abu Karsh (2013).

#### 4.1.3.2.6 Internal Risk Grading (IRG)

**Table 20: ANOVA Table for IRG**

		Sum of Squares	df	Mean Square	F	Sig.
Account performance and /or track record of the borrowers	Between Groups	12.048	3	4.016	2.657	.056
	Within Groups	93.709	62	1.511		
	Total	105.758	65			
Rating financial soundness, financial performance or position	Between Groups	20.995	3	6.998	4.458	.007
	Within Groups	97.323	62	1.570		
	Total	118.318	65			
Collateral Risk	Between Groups	19.039	3	6.346	3.907	.013
	Within Groups	100.719	62	1.624		
	Total	119.758	65			
Management Quality	Between Groups	54.350	3	18.117	11.243	.000
	Within Groups	99.907	62	1.611		
	Total	154.258	65			
Banking Relationship	Between Groups	15.103	3	5.034	3.938	.012
	Within Groups	79.261	62	1.278		
	Total	94.364	65			

Similarly to the test performed for other lending Models, the Analysis of variances conducted for IRG has shown the existence of statically significance in the group means difference of the bank except for Account performance and /or track record of the borrowers. The Anova test showed that the F statistics equal to 2.65, 4.46, 3.90, 11.24 and 3.94 for Account performance and /or track record of the borrowers, Rating financial soundness, financial performance or position, Collateral Risk, Management Quality, and Banking Relationship respectively with the corresponding p-values of 0.05, 0.00, 0.013 and 0.02 values. Hence with exception of level of considering for Account performance and /or track record of the borrowers they use IRG differently for their credit approval process.

## Chapter Five

### 5. Summary, Conclusions and Recommendations

This study seeks to determine whether the selected private commercial banks use scientific methods to evaluate their customers' applications for credit and tries to find which elements of each method is the most important to the bank lending decision. It also tested the differences among the banks in dealing with their customers regarding credit evaluation. A questionnaire was designed and distributed to four private commercial banks employees at head office and district level since the approval process is performed at credit processing centers. The banks were selected based on their average annual lending activates from 2011/2012 to 2015/2016. During the period they do have 5% and above share of contribution from average annual disbursement made in the economy. The questionnaire was filled out by the credit performers of these banks; 66 filled out questionnaire were collected. Two methods were used for analysis: the averages and the Anova tests. Hence, the major findings of the study have been listed in the underneath and discussed, than give a way to draw a conclusion. Finally, possible recommendations for the major issues found in the study are forwarded on the basis on the findings.

#### 5.1 Summary

According to the discussion and analysis of the data presented in chapter four, the following findings were drawn.

- ✚ It was found that the selected private commercial banks (**DB, AIB, NIB and WB**) apply lending Models in evaluating and approving their customers' credit application.
- ✚ They use the six methods of evaluation for their credit analysis and appraisal process and lending decision. Besides, they have crafted credit risk management systems aiming at ensuring better asset quality and apply it to support the other five methods, since some variables are duplicated in the other methods.
- ✚ In using the **5C's** Credit the banks use capacity, capital and collateral as their main concern for sources of payment and credit decision, while character and conditions are their least concern.

- ✚ The factors of **CAMPARI** Model are in use by the banks in their credit processing. It was found that the banks concentrate more on the ability to pay and repayment term and they are less concerned with amount, margin, or purpose of finance.
- ✚ The banks under the study also employ **LAPP Model**. In the way through the most concerns of the banks are the liquidity and profitability of the applicants. They are less concerned with the potential or the activity ratios of the customer as compared to the other factors, Liquidity and profitability
- ✚ From the factors of **Five P's**, the banks concentrate most on protection or collateral. People as factors also have greater effect on the credit decision than the payment (source of payment, timing, and probability of default) and prospective.
- ✚ The selected private commercial banks use **FAPE** method for their loan analysis, appraisal and credit decision. While applying the method, they concentrate most on debt ratio, liquidity ratios and profitability ratios of the applicant and less on operational ratios. The lending decision makers give equal weight to Character and credit records ratios.
- ✚ While applying (**IRG**), like other models discussed in the above, the banks most consider collateral, track record and/ or account performance as well as financial soundness, financial performance or position of the customers. On the other hand, the banks give less consideration for management quality of the applicant and banking relationship compared to the other factors.
- ✚ All the banks under consideration have policy and procedure documents which clearly articulate how the lending Model to be used in the loan application and decision making processing.
- ✚ In all of the banks under the study, there are prevalence times when credit lending canons are overridden by directors, senior management or influential staffs of the banks.
- ✚ The banks have clearly defined weighting point for each factor of the landing models in use however AIB does not define specific weighting point for each factor in its customer grading.
- ✚ The lending Models and its factors have been designed in the banks' policy and procedure documents in such ways that enable to lending decision makers to consider the factors throughout the credit workflow.

Regarding the uniformity of applying the lending Models by all banks under the study, they use all the Models for their credit decision but the levels of consideration are not similar to one another except in the case of CAMPARI. In this model they use all the model factors similarly but they give different level of consideration for the amount request.

## 5.2 Conclusions

This study was conducted aiming at seeking answers for questions related to application of lending Models and its factors effect, particularly the customer specific one, in the lending decision of four private commercial banks namely Dashen bank, Awash bank, Nib Bank and Wegagen bank through the identification and evaluation of well know lending Models which are commonly used by lending institutions. In addition to that the research has evaluated the application uniformity of the Models among the banks include in the study.

As result, the researcher has reached on the following conclusions regarding the topic under the study:

- Lending is an important component of the operations of a bank and all efforts should be made to ensure that the procedures to be employed in lending are appropriately follow .All the banks under the study use the six lending models in evaluating credit applications. They are the 5c's credit, CAMPARI, LAPP, 5P's, FAPE, and IRG however they apply the methods in different ways. They give different consideration for the model factors while making credit decision. This is one of the reasons that different and/or opposite decisions may be given for the same loan application by different banks. One may accept the request partially or fully the other may also completely reject the request by the ground of factors considered
- Regarding the lending Model factors, while evaluating and approving credit applications, all the banks in the study most consider collateral, capital, capacity, liquidity, profitably, debt ratio and credit truck records. Generally they most think about how the money can be returned back and how much security, collateral or protections are available. It is one of the characteristic of conservative lending policy. On the other hand, they do have least consideration on management quality of the applicant, operational ratios, condition of the economy and the industry, purpose, prospect or plan.
- As the data collected and the analysis conducted reveals, the application of lending Model in the banks under consideration are not similar. They simply consider their own internal risk appetite and organizational factors to avail the credit facilities.

### **5.3 Recommendations**

Based on the major findings of the study and the conclusions drawn, the researcher suggested the following recommendations.

The Banks in the study should have a reasonable risk appetite and improve the level of consideration for business operational analysis, business idea feasibility and purpose of the amount to be used instead of considering most about the security and collateral. In doing so applicants with feasible business idea may get access to credit and make true their business ideas.

The management of the banks should make sure that the benefit of overriding a credit lending canons out weight the potential default risk and cost associated with it.

In collaboration with the other industry players, the Banks involved in this study should promote and encourage the research and development activities in the academic institutions, in their organization as well as in the industry through the banker's association. The findings may improve the lending decision practice of the banks by providing the banks with critical factors that need most consideration. Ultimately it will have positive impact on the banks asset quality and profitability.

Besides, other counties lending practice and experience that may suit to our situation should also be studied, customized and adopted to our situation.

## Bibliography / Reference

- Asad (2014), Bank and bank lending, retrieved during July 2017 from [www.ligiagolosoioiu.ro/content /banks and lending](http://www.ligiagolosoioiu.ro/content/banks%20and%20lending).
- Abu Karsh, Sharif, 2005. Credit Management, presented in the first scientific conference on banking and finance. Islamic University Gaza, Palestine
- Alemayehu, G. (2006). The Structure and Performance of Ethiopia's Financial Sector in the Pre and Post Reform with a Special focus on Banking. Research paper No. 2006/112. Helsinki: UNU World Institute for Development Economics.
- Amano, G. (2014). Determinates of lending Behaviour of Banks: A Case study on Commercial Banks of Ethiopia. MSc Project Paper. Unpublished, Addis Ababa University
- Arnaldo M. (2003). Origins and early development of banking in Ethiopia, Retrieved in July, 2017 from [http://wp.demm.unimi.it/files/wp/2003/DEMM-2003\\_004wp](http://wp.demm.unimi.it/files/wp/2003/DEMM-2003_004wp)
- Benz, G.V. (1979). International trade credit management, Grower Press Limited, Great Britain
- Berhanu (2015). Determinants Of Lending Decision And Their Impact On Financial Performance: Empirical Study On Private Commercial Banks In Ethiopia. MSc Project Paper. Unpublished, Addis Ababa University
- Brent, F. (2010). Understanding Lending Models, Business finance specialist, Retrieved in July, 2017 from <http://blog.businessfinancespecialist.com/secure-capital/understanding-lending-model>
- Dankwa and Badu, (2013) Dankwa and Badu, (2013). Principles and practice of lending in the banking sector: a case study of some selected banks in Ghana. Journal of Contemporary Integrative Ideas Volume 1(2), p. 9-21
- Federal Reserve Bank of Kansas City and Federal Reserve Bank of St. Louis 2004, "Federal Reserve Center Publications for on Line Learning", U.S.A.
- Fikru (2013). Role of Commercial Bank of Ethiopia in Fostering Ethiopian Economy, unpublished, Adama Science and Technology University, Ethiopia

- Habtamu (2015). Assessment of Factors Affecting Non-Performing Loans: the Case Of Ethiopian Private Bank. MSc Project Paper. Unpublished, Addis Ababa University
- Joshua (2010), The effect of 7cs credit appraisal model on the level of non-performing advances of commercial banks in Kenya. MSc Project Paper, Unpublished, university of Nairobi
- Kabir, Jahan, Chisty and Dr. Akhtar Hasin (2010), Credit Risk Assessment and Evaluation System for Industrial Project, International Journal of Trade, Economics and Finance, Vol.1, No.4, December, 2010.
- Kannan, and S. Sudalaimuthu (2016) COMMERCIAL BANK LENDING IN ETHIOPIA, International Journal of Management Studies, Vol-III, Issue-1.
- Khan (2012), Role of commercial banks in economic development, retrieved from [http://ahsankhaneco.blogspot.com/2012/04/economics and education/during June and July 2017](http://ahsankhaneco.blogspot.com/2012/04/economics%20and%20education/during%20June%20and%20July%202017).
- Korwa, G. A. & Iroanya, R.O. (2008). Towards Africa-Oriented Risk Analysis Models: A Contextual and Methodological Approach.
- Levine,R (1998) The legal environment, banks and long run economic growth , journal of money, Credit and Banking.Vol.30, no 10,596-613
- Loretta J (1997), what's the Point of Credit Scoring?, Unpublished, federal reserve bank of Philadelphia.
- M. Abbadì and Abu Karsh (2013). Methods of Evaluating Credit Risk used by Commercial Banks in Palestine, International Research Journal of Finance and Economics ISSN 1450-2887 Issue 111 July, 2013 from page 146-160.
- McDonald and Eastwood (2000), Credit Risk Rating at Australian Banks, unpublished, presented to Basel Committee on Banking Supervision for the reform of international bank capital adequacy guidelines.
- National Bank of Ethiopia (NBE) (2015/2016).Annual Report, Addis Ababa, Ethiopia, retrieved during July 2017

- Nelson, M. W.& Victor M.K. (2009). Commercial Banking Crises in Kenya: Causes and Remedies. African Journal of Accounting, Economics, Finance, and Banking Research, Nairobi Vol. 4.
- Olokoyo (2011). Determinants of Commercial Banks' Lending Behavior in Nigeria, International Journal of Financial Research, Vol. 2, No. 2; July 2011
- Peek, J., & Rosengren, E. (1995). The Capital Crunch: Neither a Borrower nor a Lender Be. Journal of Money, Credit and Banking, 3(1), 625-635.
- Pride, W.M., Hughes, R.J. & Kapoor, J.R. (2008). Business (10th ed). Mason, OH: South-Western Cengage Learning.
- Rose PS. (2002). Commercial Bank Management, 5 th edition. New York: McGraw-Hill/Irwin.
- The Hong Kong Institute of Bankers,( 2012, p. 5). Hong Kong Institute of Bankers (2012). Bank Lending. Singapore: John Wiley & Sons.
- Valdez, S. (2002). An Introduction to Global Financial Markets (3rd ed.). London: Macmillan Press Ltd.
- www.wikipedia.com. Retrieved during June and July 2017
- Yushau, A. S. (2001). Basic principles of Bank Lending, YAShuaib. Retrieved in July, 2017 from <http://yashuaib.com/2001/04/basic-principles-of-bank-lending/>

## Commercial Banks in Ethiopia

### Annex 1

#### Loan and advance disbursed by commercial banks (2011-2012 to 2015-2016)

Bank Name	Fiscal period						
	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	Mean	Proportions
Commercial Bank of Ethiopia	31,940.30	27,365.90	32,184.10	33,715.50	42,378.20	33,516.80	55%
Construction & Business Bank	460.8	548.2	1,288.00	1354.8	918.5	914.06	1%
<b>Public Banks Sub-Total</b>	<b>32,401.10</b>	<b>27,914.10</b>	<b>33,472.10</b>	<b>35,070.30</b>	<b>43,296.70</b>	<b>34,430.86</b>	<b>56%</b>
Awash International Bank	2,467.20	2,961.50	1,944.60	3,723.60	4,476.20	3,114.62	5%
Dashen Bank	3,632.40	2,917.30	3,757.50	5,179.80	5,372.60	4,171.92	7%
Bank of Abyssinia	2,101.70	2,252.60	1,534.20	1,818.70	3,025.60	2,146.56	4%
Wegagen Bank	2,556.50	3,031.30	2,070.90	3,089.50	3,137.20	2,777.08	5%
United Bank	2,358.10	2,210.40	2,085.40	3,188.80	3,174.00	2,603.34	4%
Nib International Bank	2,093.40	2,429.60	3,382.80	4,629.10	4,041.20	3,315.22	5%
<b>Old Pvt Banks Sub-Total</b>	<b>15,209.30</b>	<b>15,802.70</b>	<b>14,775.40</b>	<b>21,629.50</b>	<b>23,226.80</b>	<b>18,128.74</b>	<b>30%</b>
Cooperative Bank of Oromia	669	332.9	803.9	1736.4	2182.8	1,145.00	2%
Lion International Bank	568.8	601.8	567	1612.2	2302.8	1,130.52	2%
Oromia International Ban	786.7	816.4	787.3	1266.2	1572.4	1,045.80	2%
Zemen Bank	579.5	1,195.30	1,149.90	2393	1647.6	1,393.06	2%
Bunna International Bank	254.2	690.9	484	809.1	2150.5	877.74	1%
Berhan International Bank	472.8	532.4	679.3	1447.3	2031.6	1,032.68	2%
Abay Bank	453	686.5	806.8	1353.4	1722.6	1,004.46	2%
Addis International Bank	159.6	232.5	222.9	343	382.9	268.18	0%
Debab Global Bank	0	104.4	271.5	242.7	546.6	233.04	0%
Enat Bank	0	6	479.4	735.1	630.1	370.12	1%
<b>New Private Banks</b>	<b>3943.6</b>	<b>5199.1</b>	<b>6252</b>	<b>11938.4</b>	<b>15169.9</b>	<b>8,500.60</b>	<b>14%</b>
All Private Banks Sub- Total	<b>19,152.90</b>	<b>21,001.80</b>	<b>21,027.40</b>	<b>33,567.90</b>	<b>38,396.70</b>	<b>26,629.34</b>	<b>44%</b>
<b>Total Banking Industry</b>	<b>51,554.00</b>	<b>48,915.90</b>	<b>54,499.50</b>	<b>68,638.20</b>	<b>81,693.40</b>	<b>61,060.20</b>	<b>100%</b>

**Source:** National Bank of Ethiopia annual Reports

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Capacity	DB	17	3.94	1.478	.358	3.18	4.70	1	5
	AIB	15	3.80	1.781	.460	2.81	4.79	1	5
	NIB	18	3.61	.979	.231	3.12	4.10	1	5
	WB	16	2.69	1.078	.270	2.11	3.26	1	5
	Total	66	<b>3.52</b>	1.406	.173	3.17	3.86	1	5
Collateral	DB	17	3.94	1.345	.326	3.25	4.63	1	5
	AIB	15	3.73	1.624	.419	2.83	4.63	1	5
	NIB	18	3.11	.676	.159	2.77	3.45	1	4
	WB	16	2.38	.806	.202	1.95	2.80	1	4
	Total	66	<b>3.29</b>	1.286	.158	2.97	3.60	1	5
Condition	DB	17	2.47	1.068	.259	1.92	3.02	1	4
	AIB	15	2.73	1.223	.316	2.06	3.41	1	4
	NIB	18	2.11	.471	.111	1.88	2.35	1	3
	WB	16	1.75	.683	.171	1.39	2.11	1	3
	Total	66	<b>2.26</b>	.950	.117	2.02	2.49	1	4
Capital	DB	17	4.00	1.369	.332	3.30	4.70	1	5
	AIB	15	3.73	1.624	.419	2.83	4.63	1	5
	NIB	18	3.28	.826	.195	2.87	3.69	1	5
	WB	16	2.50	.816	.204	2.06	2.94	1	4
	Total	66	<b>3.38</b>	1.298	.160	3.06	3.70	1	5
Character	DB	17	3.41	1.502	.364	2.64	4.18	1	5
	AIB	15	3.60	1.724	.445	2.65	4.55	1	5
	NIB	18	1.94	1.162	.274	1.37	2.52	1	4
	WB	16	1.38	1.025	.256	.83	1.92	1	4
	Total	66	<b>2.56</b>	1.637	.202	2.16	2.96	1	5

Post Hoc Test

		Multiple Comparisons							
		Mean Difference (I-J)	Std. Error	Sig.	Interval				
					Lower Bound	Upper Bound			
Capacity	Tukey HSD	DB	AIB	.141	.478	.991	-1.12	1.40	
			NIB	.330	.457	.888	-.88	1.54	
			WB	1.254*	.470	.047	-.01	2.50	
	AIB	DB	NIB	-.141	.478	.991	-1.40	1.12	
			NIB	-.189	.472	.978	-1.06	1.44	
			WB	1.113	.485	.111	-.17	2.39	
	NIB	DB	AIB	-.330	.457	.888	-1.54	.88	
			AIB	-.189	.472	.978	-1.44	1.06	
			WB	.924	.464	.203	-.30	2.15	
	WB	DB	AIB	-1.254*	.470	.047	-2.50	-.01	
			AIB	-1.113	.485	.111	-2.39	.17	
			NIB	-.924	.464	.203	-2.15	.30	
	Collateral	Tukey HSD	DB	AIB	.208	.411	.957	-.88	1.29
				NIB	.830	.392	.159	-.21	1.87
				WB	1.566*	.404	.001	-.50	2.63
AIB		DB	NIB	-.208	.411	.957	-1.29	.88	
			NIB	.622	.405	.423	-.45	1.69	
			WB	1.358*	.417	.010	-.26	2.46	
NIB		DB	AIB	-.830	.392	.159	-1.87	.21	
			AIB	-.622	.405	.423	-1.69	.45	
			WB	.736	.399	.262	-.32	1.79	
WB		DB	AIB	-1.566*	.404	.001	-2.63	-.50	
			AIB	-1.358*	.417	.010	-2.46	-.26	
			NIB	-.736	.399	.262	-1.79	.32	
Condition		Tukey HSD	DB	AIB	-.263	.318	.842	-1.10	.58
				NIB	.359	.304	.639	-.44	1.16
				WB	.721	.313	.108	-.10	1.55
	AIB	DB	NIB	.263	.318	.842	-.58	1.10	
			NIB	.622	.314	.205	-.21	1.45	
			WB	.983*	.323	.017	-.13	1.83	
	NIB	DB	AIB	-.359	.304	.639	-1.16	.44	
			AIB	-.622	.314	.205	-1.45	.21	
			WB	.361	.308	.647	-.45	1.18	
	WB	DB	AIB	-.721	.313	.108	-1.55	.10	
			AIB	-.983*	.323	.017	-1.83	-.13	
			NIB	-.361	.308	.647	-1.18	.45	
	Capital	Tukey HSD	DB	AIB	.267	.423	.922	-.85	1.38
				NIB	.722	.404	.289	-.34	1.79
				WB	1.500*	.416	.003	.40	2.60
AIB		DB	NIB	-.267	.423	.922	-1.38	.85	
			NIB	.456	.418	.697	-.65	1.56	
			WB	1.233*	.429	.028	-.10	2.37	
NIB		DB	AIB	-.722	.404	.289	-1.79	.34	
			AIB	-.456	.418	.697	-1.56	.65	
			WB	.778	.411	.241	-.31	1.86	
WB		DB	AIB	-1.500*	.416	.003	-2.60	-.40	
			AIB	-1.233*	.429	.028	-2.37	-.10	
			NIB	-.778	.411	.241	-1.86	.31	
Character		Tukey HSD	DB	AIB	-.188	.485	.980	-1.47	1.09
				NIB	1.467*	.463	.012	-.24	2.69
				WB	2.037*	.477	.000	.78	3.30
	AIB	DB	NIB	.188	.485	.980	-1.09	1.47	
			NIB	1.656*	.479	.005	-.39	2.92	
			WB	2.225*	.492	.000	.92	3.53	
	NIB	DB	AIB	-1.467*	.463	.012	-2.69	-.24	
			AIB	-1.656*	.479	.005	-2.92	-.39	
			WB	.569	.471	.623	-.67	1.81	
	WB	DB	AIB	-2.037*	.477	.000	-3.30	-.78	
			AIB	-2.225*	.492	.000	-3.53	-.92	
			NIB	-.569	.471	.623	-1.81	.67	

\*. The mean difference is significant at the 0.05 level.

		Descriptives									
		N	Mean	Std. Deviation	Std. Error	for Mean		Minimum	Maximum	Between-Component Variance	
						Lower Bound	Upper Bound				
Liquidity ratios	DB	17	4.71	1.795	.435	3.78	5.63	1	6	.513	
	AIB	15	4.33	2.160	.558	3.14	5.53	1	6		
	NIB	18	3.94	.998	.235	3.45	4.44	1	6		
	WB	16	2.81	1.047	.262	2.25	3.37	1	5		
	Total	66	3.95	1.677	.206	3.54	4.37	1	6		
	Model				1.557	.192	3.57	4.34			
Profitability ratios	DB	17	4.59	2.002	.486	3.56	5.62	1	6	.704	
	AIB	15	4.33	2.160	.558	3.14	5.53	1	6		
	NIB	18	3.56	.984	.232	3.07	4.04	1	5		
	WB	16	2.50	1.095	.274	1.92	3.08	1	5		
	Total	66	3.74	1.783	.219	3.30	4.18	1	6		
	Model				1.626	.200	3.34	4.14			
Character	DB	17	4.00	1.732	.420	3.11	4.89	1	6	.629	
	AIB	15	4.00	2.035	.526	2.97	5.13	1	6		
	NIB	18	3.00	.767	.181	2.62	3.38	1	4		
	WB	16	2.19	.750	.188	1.79	2.59	1	4		
	Total	66	3.29	1.576	.194	2.90	3.68	1	6		
	Model				1.417	.174	2.94	3.64			
Credit Record	DB	17	4.00	1.837	.446	3.06	4.94	1	6	.633	
	AIB	15	4.07	2.052	.530	2.93	5.20	1	6		
	NIB	18	3.39	1.037	.244	2.87	3.90	1	5		
	WB	16	2.13	1.258	.315	1.45	2.80	1	5		
	Total	66	3.39	1.727	.213	2.97	3.82	1	6		
	Model				1.581	.195	3.00	3.78			
Operation ratios	DB	17	3.29	1.724	.418	2.41	4.18	1	6	.912	
	AIB	15	3.33	1.759	.454	2.36	4.31	1	5		
	NIB	18	2.00	.907	.214	1.55	2.45	1	4		
	WB	16	1.25	.683	.171	.89	1.61	1	3		
	Total	66	2.45	1.580	.195	2.07	2.84	1	6		
	Model				1.343	.165	2.12	2.79			
Debt ratios	DB	17	4.82	1.551	.376	4.03	5.62	2	6	.449	
	AIB	15	4.07	1.718	.444	3.72	5.62	2	6		
	NIB	18	4.00	.767	.181	3.62	4.38	2	5		
	WB	16	3.19	1.750	.444	2.79	3.59	2	5		
	Total	66	4.17	1.588	.171	3.82	4.51	2	6		
	Model				1.259	.155	3.86	4.48			
					.370	2.99	5.34				

POST HOC TEST

Multiple Comparisons

Tukey HSD

Dependent Variable		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval		
					Lower Bound	Upper Bound	
Liquidity ratios	DB	AIB	.373	.551	.906	-1.08	1.83
		NIB	.761	.526	.476	-.63	2.15
		WB	1.893	.542	.005	.46	3.32
	AIB	DB	-.373	.551	.906	-1.83	1.08
		NIB	-.389	.544	.891	-1.05	1.83
		WB	1.521	.559	.041	.04	3.00
	NIB	DB	-.761	.526	.476	-2.15	.63
		AIB	-.389	.544	.891	-1.83	1.05
		WB	1.132	.535	.159	-.28	2.54
	WB	DB	-1.893	.542	.005	-3.32	-.46
		AIB	-1.521	.559	.041	-3.00	-.04
		NIB	-1.132	.535	.159	-2.54	.28
Profitability ratios	DB	AIB	.255	.576	.971	-1.27	1.78
		NIB	1.033	.550	.248	-.42	2.48
		WB	2.088	.566	.003	.59	3.58
	AIB	DB	-.255	.576	.971	-1.78	1.27
		NIB	.778	.568	.524	-.72	2.28
		WB	1.833	.584	.014	.29	3.38
	NIB	DB	-1.033	.550	.248	-2.48	.42
		AIB	-.778	.568	.524	-2.28	.72
		WB	1.056	.559	.243	-.42	2.55
	WB	DB	-2.088	.566	.003	-3.58	-.59
		AIB	-1.833	.584	.014	-3.38	-.29
		NIB	-1.056	.559	.243	-2.53	.42
Character	DB	AIB	0.000	.502	1.000	-1.32	1.32
		NIB	1.000	.479	.169	-.26	2.26
		WB	1.813	.493	.003	.51	3.12
	AIB	DB	0.000	.502	1.000	-1.32	1.32
		NIB	1.000	.495	.192	-.31	2.31
		WB	1.813	.509	.004	.47	3.16
	NIB	DB	-1.000	.479	.169	-2.26	.26
		AIB	-1.000	.495	.192	-2.31	.31
		WB	.813	.487	.349	-.47	2.10
	WB	DB	-1.813	.493	.003	-3.12	-.51
		AIB	-1.813	.509	.004	-3.16	-.47
		NIB	-.813	.487	.349	-2.10	.47
Credit Record	DB	AIB	-.067	.560	.999	-1.55	1.41
		NIB	.611	.535	.665	-.80	2.02
		WB	1.875	.551	.006	.42	3.33
	AIB	DB	-.067	.560	.999	-1.41	1.55
		NIB	.678	.553	.613	-.78	2.14
		WB	1.942	.568	.006	.44	3.44
	NIB	DB	-.611	.535	.665	-2.02	.80
		AIB	-.678	.553	.613	-2.14	.78
		WB	1.264	.543	.103	-.17	2.70
	WB	DB	-1.875	.551	.006	-3.33	-.42
		AIB	-1.942	.568	.006	-3.44	-.44
		NIB	-1.264	.543	.103	-2.70	.17
Operation ratios	DB	AIB	-.039	.476	1.000	-1.30	1.22
		NIB	1.294	.454	.030	.09	2.49
		WB	2.044	.468	.000	.81	3.28
	AIB	DB	-.039	.476	1.000	-1.22	1.30
		NIB	1.333	.470	.030	.09	2.57
		WB	2.083	.463	.000	.91	3.36
	NIB	DB	-1.294	.454	.030	-2.49	-.99
		AIB	-1.333	.470	.030	-2.57	-.99
		WB	.750	.462	.372	-.47	1.97
	WB	DB	-2.044	.468	.000	-3.28	-.81
		AIB	-2.083	.483	.000	-3.36	-.81
		NIB	-.750	.462	.372	-1.97	.47
Debt ratios	DB	AIB	.157	.446	.985	-1.02	1.33
		NIB	.824	.426	.224	-.30	1.95
		WB	1.636	.438	.002	.48	2.79
	AIB	DB	-.157	.446	.985	-1.33	1.02
		NIB	.667	.440	.435	-.50	1.83
		WB	1.479	.452	.009	.28	2.67
	NIB	DB	-.824	.426	.224	-1.95	.30
		AIB	-.667	.440	.435	-1.83	.50
		WB	.813	.433	.248	-.33	1.95
	WB	DB	-1.636	.438	.002	-2.79	-.48
		AIB	-1.479	.452	.009	-2.67	-.28
		NIB	-.157	.433	.248	-1.95	.33

\*. The mean difference is significant at the 0.05 level.

		Descriptives							
	N	Mean	Std. Deviation	Std. Error	for Mean		Minimum	Maximum	
					Lower Bound	Upper Bound			
Character	DB	17	6.24	.970	.235	5.74	6.73	4	7
	AIB	15	6.13	.990	.256	5.58	6.68	4	7
	NIB	18	6.06	.639	.151	5.74	6.37	4	7
	WB	16	6.06	.443	.111	5.83	6.30	5	7
	Total	66	6.12	.775	.095	5.93	6.31	4	7
Ability_to_Pay	DB	17	6.47	1.007	.244	5.95	6.99	4	7
	AIB	15	6.27	1.280	.330	5.56	6.98	4	7
	NIB	18	6.39	.778	.183	6.00	6.78	4	7
	WB	16	5.81	.750	.186	5.41	5.19	4	7
	Total	66	6.24	.970	.120	6.00	6.48	4	7
Margin_of_finance	DB	17	3.71	.588	.143	3.40	4.01	2	4
	AIB	15	3.67	.617	.159	3.32	4.01	2	4
	NIB	18	3.89	.471	.111	3.65	4.12	2	4
	WB	16	3.50	.632	.158	3.16	3.84	2	4
	Total	66	3.70	.581	.072	3.55	3.84	2	4
Purpose	DB	17	5.59	.939	.228	5.11	6.07	4	7
	AIB	15	5.27	1.624	.419	4.37	6.17	1	7
	NIB	18	5.11	.471	.111	4.88	5.35	4	6
	WB	16	5.00	.365	.091	4.81	5.19	4	6
	Total	66	5.24	.862	.118	5.01	5.48	1	7
Amount	DB	17	4.18	1.811	.439	3.25	5.11	2	7
	AIB	15	3.67	1.345	.347	2.92	4.41	2	6
	NIB	18	3.06	.539	.127	2.79	3.32	2	5
	WB	16	2.69	.479	.120	2.43	2.94	2	3
	Total	66	3.39	1.288	.158	3.08	3.71	2	7
Repayment_term	DB	17	2.24	.831	.202	1.81	2.66	1	3
	AIB	15	2.20	.862	.223	1.72	2.68	1	3
	NIB	18	1.94	.236	.056	1.83	2.06	1	2
	WB	16	1.86	.342	.085	1.69	2.06	1	2
	Total	66	2.06	.630	.077	1.91	2.22	1	3
Insurance	DB	17	1.41	.795	.193	1.00	1.82	1	3
	AIB	15	1.47	.516	.133	1.18	1.75	1	2
	NIB	18	1.00	0.000	0.000	1.00	1.00	1	1
	WB	16	1.00	0.000	0.000	1.00	1.00	1	1
	Total	66	1.21	.512	.063	1.09	1.34	1	3

post hoc test

		Multiple Comparisons						
Dependent Variable		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval			
					Lower Bound	Upper Bound		
Character	Tukey HSD	DB	AIB	.102	.280	.983	-.64	.84
			NIB	-.180	.267	.907	-.53	.88
			WB	.173	.275	.923	-.55	.90
	AIB	DB	NIB	-.102	.280	.983	-.84	.64
			WB	.078	.276	.992	-.65	.81
			Total	.071	.284	.994	-.68	.83
		NIB	DB	-.180	.267	.907	-.88	.53
			AIB	-.078	.276	.992	-.81	.65
			WB	-.007	.271	1.000	-.72	.71
		WB	DB	-.173	.275	.923	-.90	.55
			AIB	-.071	.284	.994	-.82	.68
			NIB	.007	.271	1.000	-.71	.72
Ability_to_Pay	Tukey HSD	DB	AIB	.204	.342	.933	-.70	1.11
			NIB	.082	.327	.994	-.78	.94
			WB	.658	.337	.216	-.23	1.56
	AIB	DB	NIB	-.204	.342	.933	-1.11	.70
			WB	-.122	.338	.984	-1.01	.77
			Total	.454	.347	.562	-.46	1.37
		NIB	DB	-.082	.327	.994	-.94	.78
			AIB	-.122	.338	.984	-.77	1.01
			WB	.576	.332	.314	-.30	1.45
		WB	DB	-.658	.337	.216	-1.55	.23
			AIB	-.454	.347	.562	-1.37	.46
			NIB	-.576	.332	.314	-1.45	.30
Margin_of_finance	Tukey HSD	DB	AIB	.039	.204	.997	-.50	.58
			NIB	-.183	.195	.785	-.70	.38
			WB	.206	.201	.736	-.32	.74
	AIB	DB	NIB	-.039	.204	.997	-.58	.50
			WB	-.222	.202	.690	-.75	.31
			Total	.167	.207	.852	-.38	.71
		NIB	DB	.183	.195	.785	-.33	.70
			AIB	.222	.202	.690	-.31	.75
			WB	.389	.198	.214	-.13	.91
		WB	DB	-.206	.201	.736	-.74	.32
			AIB	-.167	.207	.852	-.71	.38
			NIB	-.389	.198	.214	-.91	.15
Purpose	Tukey HSD	DB	AIB	-.322	.339	.779	-.57	1.23
			NIB	.477	.324	.459	-.38	1.33
			WB	.588	.333	.300	-.29	1.47
	AIB	DB	NIB	-.322	.339	.779	-1.22	.57
			WB	.156	.335	.966	-.73	1.04
			Total	.267	.344	.865	-.64	1.18
		NIB	DB	-.477	.324	.459	-1.33	.38
			AIB	-.156	.335	.966	-1.04	.73
			WB	-.111	.329	.987	-.76	.98
		WB	DB	-.588	.333	.300	-1.47	.28
			AIB	-.267	.344	.865	-1.18	.64
			NIB	-.111	.329	.987	-.98	.76
Amount	Tukey HSD	DB	AIB	.510	.418	.616	-.59	1.61
			NIB	1.121	.389	.033	.07	2.17
			WB	1.489	.411	.003	.40	2.57
	AIB	DB	NIB	-.510	.418	.616	-1.61	.59
			WB	.611	.412	.454	-.48	1.70
			Total	.979	.424	.107	-.14	2.10
		NIB	DB	-.121	.399	.033	-2.17	-.07
			AIB	-.611	.412	.454	-1.70	.48
			WB	-.368	.405	.800	-.70	1.44
		WB	DB	-.149	.411	.003	-2.57	-.40
			AIB	-.979	.424	.107	-2.10	.14
			NIB	-.368	.405	.800	-1.44	.70
Repayment_term	Tukey HSD	DB	AIB	.035	.221	.999	-.55	.62
			NIB	.291	.211	.518	-.27	.85
			WB	.360	.217	.355	-.21	.93
	AIB	DB	NIB	-.035	.221	.999	-.62	.56
			WB	.256	.218	.647	-.32	.83
			Total	.325	.224	.474	-.27	.98
		NIB	DB	-.291	.211	.518	-.85	.27
			AIB	-.256	.218	.647	-.83	.32
			WB	.069	.214	.988	-.50	.64
		WB	DB	-.360	.217	.355	-.93	.21
			AIB	-.325	.224	.474	-.92	.27
			NIB	-.069	.214	.988	-.64	.50
Insurance	Tukey HSD	DB	AIB	-.055	.167	.988	-.50	.39
			NIB	.412	.160	.058	-.01	.83
			WB	.412	.165	.070	-.02	.86
	AIB	DB	NIB	-.055	.167	.988	-.39	.58
			WB	.467	.165	.032	.03	.90
			Total	.467	.170	.038	.02	.92
		NIB	DB	-.412	.160	.058	-.83	.01
			AIB	-.467	.165	.032	-.90	-.03
			WB	0.000	.162	1.000	-.43	.43
		WB	DB	-.412	.165	.070	-.85	.02
			AIB	-.467	.170	.038	-.92	-.02
			NIB	0.000	.162	1.000	-.43	.43

\*. The mean difference is significant at the 0.05 level.

		Descriptives							
		N	Mean	Std. Deviation	Std. Error	for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
People	DB	17	3.94	1.345	.326	3.25	4.63	1	5
	AIB	15	3.80	1.521	.393	2.96	4.64	1	5
	NIB	18	3.22	.732	.173	2.86	3.59	1	4
	WB	16	2.75	.775	.194	2.34	3.16	1	4
	Total	66	3.42	1.203	.148	3.13	3.72	1	5
Purpose	DB	17	3.82	1.667	.404	2.97	4.68	1	5
	AIB	15	3.67	1.718	.444	2.72	4.62	1	5
	NIB	18	3.44	.856	.202	3.02	3.87	1	5
	WB	16	2.56	.814	.203	2.13	3.00	1	4
	Total	66	3.38	1.379	.170	3.04	3.72	1	5
Protection	DB	17	3.94	1.478	.358	3.18	4.70	1	5
	AIB	15	3.67	1.718	.444	2.72	4.62	1	5
	NIB	18	3.83	.924	.218	3.37	4.29	1	5
	WB	16	2.75	.931	.233	2.25	3.25	1	5
	Total	66	3.56	1.349	.166	3.23	3.89	1	5
Prospective _Plan	DB	17	2.65	1.367	.331	1.94	3.35	1	5
	AIB	15	2.33	1.113	.287	1.72	2.95	1	5
	NIB	18	1.61	.502	.118	1.36	1.86	1	2
	WB	16	1.13	.342	.085	.94	1.31	1	2
	Total	66	1.92	1.086	.134	1.66	2.19	1	5
Payment	DB	17	3.24	1.437	.349	2.50	3.97	1	5
	AIB	15	3.40	1.724	.445	2.45	4.35	1	5
	NIB	18	2.33	.840	.198	1.92	2.75	1	4
	WB	16	1.94	.929	.232	1.44	2.43	1	4
	Total	66	2.71	1.379	.170	2.37	3.05	1	5

post hoc test

		Multiple Comparisons							
		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval				
					Lower Bound	Upper Bound			
People	Tukey HSD	DB	AIB	.141	.401	.985	-.92	1.20	
		NIB	.719	.383	.248	-.29	1.73		
		WB	1.191 <sup>*</sup>	.394	.019	.15	2.23		
	AIB	DB	-.141	.401	.985	-1.20	.92		
		NIB	.578	.396	.468	-.47	1.62		
		WB	1.050	.407	.058	-.02	2.12		
	NIB	DB	-.719	.383	.248	-1.73	.29		
		AIB	-.578	.396	.468	-1.62	.47		
		WB	.472	.389	.620	-.55	1.50		
	WB	DB	-1.191 <sup>*</sup>	.394	.019	-2.23	-.15		
		AIB	-1.050	.407	.058	-2.12	.02		
		NIB	-.472	.389	.620	-1.50	.55		
	Purpose	Tukey HSD	DB	AIB	.157	.468	.987	-1.08	1.39
			NIB	.379	.447	.831	-.80	1.56	
			WB	1.261 <sup>*</sup>	.460	.039	.05	2.48	
AIB		DB	-.157	.468	.987	-1.39	1.08		
		NIB	.222	.462	.963	-1.00	1.44		
		WB	1.104	.475	.103	-.15	2.36		
NIB		DB	-.379	.447	.831	-1.56	.80		
		AIB	-.222	.462	.963	-1.44	1.00		
		WB	.882	.454	.221	-.32	2.08		
WB		DB	-1.261 <sup>*</sup>	.460	.039	-2.48	-.05		
		AIB	-1.104	.475	.103	-2.36	.15		
		NIB	-.882	.454	.221	-2.08	.32		
Protection		Tukey HSD	DB	AIB	.275	.458	.932	-.94	1.48
			NIB	.108	.438	.995	-1.05	1.26	
			WB	1.191 <sup>*</sup>	.451	.050	.00	2.38	
	AIB	DB	-.275	.458	.932	-1.48	.94		
		NIB	-.167	.452	.983	-1.36	1.03		
		WB	.917	.465	.210	-.31	2.14		
	NIB	DB	-.108	.438	.995	-1.26	1.05		
		AIB	.167	.452	.983	-1.03	1.36		
		WB	1.083	.445	.081	-.09	2.26		
	WB	DB	-1.191 <sup>*</sup>	.451	.050	-2.38	.00		
		AIB	-.917	.465	.210	-2.14	.31		
		NIB	-1.083	.445	.081	-2.26	.09		
	Prospective _Plan	Tukey HSD	DB	AIB	.314	.328	.775	-.55	1.18
			NIB	1.036 <sup>*</sup>	.313	.008	.21	1.86	
			WB	1.522 <sup>*</sup>	.323	.000	.67	2.37	
AIB		DB	-.314	.328	.775	-1.18	.55		
		NIB	.722	.324	.127	-.13	1.58		
		WB	1.208 <sup>*</sup>	.333	.003	.33	2.09		
NIB		DB	-1.036 <sup>*</sup>	.313	.008	-1.86	-.21		
		AIB	-.722	.324	.127	-1.58	.13		
		WB	.486	.318	.428	-.35	1.33		
WB		DB	-1.522 <sup>*</sup>	.323	.000	-2.37	-.67		
		AIB	-1.208 <sup>*</sup>	.333	.003	-2.09	-.33		
		NIB	-.486	.318	.428	-1.33	.35		
Payment		Tukey HSD	DB	AIB	-.165	.449	.983	-1.35	1.02
			NIB	.902	.429	.163	-.23	2.03	
			WB	1.298 <sup>*</sup>	.441	.023	.13	2.46	
	AIB	DB	.165	.449	.983	-1.02	1.35		
		NIB	1.067	.443	.086	-.10	2.24		
		WB	1.463 <sup>*</sup>	.456	.011	.26	2.67		
	NIB	DB	-.902	.429	.163	-2.03	.23		
		AIB	-1.067	.443	.086	-2.24	.10		
		WB	.396	.435	.800	-.75	1.55		
	WB	DB	-1.298 <sup>*</sup>	.441	.023	-2.46	-.13		
		AIB	-1.463 <sup>*</sup>	.456	.011	-2.67	-.26		
		NIB	-.396	.435	.800	-1.55	.75		

\*. The mean difference is significant at the 0.05 level.

Descriptives

		N	Mean	Std. Deviation	Std. Error	Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Liquidity	DB	17	3.24	.970	.235	2.74	3.73	1	4
	AIB	15	3.20	1.146	.296	2.57	3.83	1	4
	NIB	18	3.06	.639	.151	2.74	3.37	1	4
	WB	16	2.31	.793	.198	1.89	2.74	1	4
	Total	66	2.95	.952	.117	2.72	3.19	1	4
Activity	DB	17	2.59	1.176	.285	1.98	3.19	1	4
	AIB	15	2.87	1.302	.336	2.15	3.59	1	4
	NIB	18	1.78	.732	.173	1.41	2.14	1	3
	WB	16	1.25	.683	.171	.89	1.61	1	3
	Total	66	2.11	1.165	.143	1.82	2.39	1	4
Potential	DB	17	2.65	1.115	.270	2.07	3.22	1	4
	AIB	15	2.87	1.302	.336	2.15	3.59	1	4
	NIB	18	2.11	.471	.111	1.88	2.35	1	3
	WB	16	1.63	.719	.180	1.24	2.01	1	3
	Total	66	2.30	1.037	.128	2.05	2.56	1	4
Profitability	DB	17	3.06	1.249	.303	2.42	3.70	1	4
	AIB	15	2.93	1.280	.330	2.22	3.64	1	4
	NIB	18	2.72	.826	.195	2.31	3.13	1	4
	WB	16	1.81	.834	.209	1.37	2.26	1	4
	Total	66	2.64	1.145	.141	2.35	2.92	1	4

post hoc test

Multiple Comparisons

Dependent Variable		Mean Difference (I-J)	Std. Error	Sig.	Interval		
					Lower Bound	Upper Bound	
Liquidity	Tukey HSD	DB	.035	.318	1.000	-.80	.87
		NIB	.180	.303	.934	-.62	.98
		WB	.923 <sup>*</sup>	.312	.022	-.10	1.75
	AIB	DB	-.035	.318	1.000	-.87	.80
		NIB	.144	.313	.967	-.68	.97
		WB	.888 <sup>*</sup>	.322	.038	-.04	1.74
	NIB	DB	-.180	.303	.934	-.98	.62
		AIB	-.144	.313	.967	-.97	.68
		WB	.743	.308	.085	-.07	1.56
	WB	DB	-.923 <sup>*</sup>	.312	.022	-1.75	-.10
		AIB	-.888 <sup>*</sup>	.322	.038	-1.74	-.04
		NIB	-.743	.308	.085	-1.56	.07
Activity	Tukey HSD	DB	-.278	.354	.860	-1.21	.66
		NIB	.810	.338	.088	-.08	1.70
		WB	1.338 <sup>*</sup>	.348	.002	.42	2.26
	AIB	DB	.278	.354	.860	-.66	1.21
		NIB	1.089 <sup>*</sup>	.349	.014	.17	2.01
		WB	1.617 <sup>*</sup>	.359	.000	.67	2.57
	NIB	DB	-.810	.338	.088	-1.70	.08
		AIB	-1.089 <sup>*</sup>	.349	.014	-2.01	-.17
		WB	.528	.343	.422	-.38	1.43
	WB	DB	-1.338 <sup>*</sup>	.348	.002	-2.26	-.42
		AIB	-1.617 <sup>*</sup>	.359	.000	-2.57	-.67
		NIB	-.528	.343	.422	-1.43	.38
Potential	Tukey HSD	DB	-.220	.334	.913	-1.10	.66
		NIB	.536	.319	.343	-.31	1.38
		WB	1.022 <sup>*</sup>	.328	.015	.15	1.89
	AIB	DB	.220	.334	.913	-.66	1.10
		NIB	.756	.330	.111	-.11	1.63
		WB	1.242 <sup>*</sup>	.339	.003	.35	2.14
	NIB	DB	-.536	.319	.343	-1.38	.31
		AIB	-.756	.330	.111	-1.63	.11
		WB	.486	.324	.444	-.37	1.34
	WB	DB	-1.022 <sup>*</sup>	.328	.015	-1.89	-.15
		AIB	-1.242 <sup>*</sup>	.339	.003	-2.14	-.35
		NIB	-.486	.324	.444	-1.34	.37
Profitability	Tukey HSD	DB	.125	.376	.987	-.87	1.12
		NIB	.337	.359	.785	-.61	1.28
		WB	1.246 <sup>*</sup>	.370	.007	.27	2.22
	AIB	DB	-.125	.376	.987	-1.12	.87
		NIB	.211	.371	.941	-.77	1.19
		WB	1.121 <sup>*</sup>	.382	.023	.11	2.13
	NIB	DB	-.337	.359	.785	-1.28	.61
		AIB	-.211	.371	.941	-1.19	.77
		WB	.910	.365	.071	-.05	1.87
	WB	DB	-1.246 <sup>*</sup>	.370	.007	-2.22	-.27
		AIB	-1.121 <sup>*</sup>	.382	.023	-2.13	-.11
		NIB	-.910	.365	.071	-1.87	.05

\*. The mean difference is significant at the 0.05 level.

	Descriptive								Minimum	Maximum
	Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean				
						Lower Bound	Upper Bound			
Account performance and /or track record of the borrowers	DB	17	3.88	1.453	0.352	3.14	4.63	1	5	
	AIB	15	3.67	1.718	0.444	2.72	4.62	1	5	
	NIB	18	3.28	0.752	0.177	2.9	3.65	1	4	
	WB	16	2.75	0.775	0.194	2.34	3.16	1	4	
	Total	66	3.39	1.276	0.157	3.08	3.71	1	5	
Rating financial soundness, financial performance or position	DB	17	3.94	1.478	0.358	3.18	4.7	1	5	
	AIB	15	3.67	1.718	0.444	2.72	4.62	1	5	
	NIB	18	3.22	0.808	0.191	2.82	3.62	1	5	
	WB	16	2.44	0.814	0.203	2	2.87	1	4	
	Total	66	3.32	1.349	0.166	2.99	3.65	1	5	
Management Quality	DB	17	3.29	1.49	0.361	2.53	4.06	1	5	
	AIB	15	3.4	1.724	0.445	2.45	4.35	1	5	
	NIB	18	1.89	0.963	0.227	1.41	2.37	1	4	
	WB	16	1.25	0.683	0.171	0.89	1.61	1	3	
	Total	66	2.44	1.541	0.19	2.06	2.82	1	5	
Banking Relationship	DB	17	3	1.541	0.374	2.21	3.79	1	5	
	AIB	15	2.87	1.506	0.389	2.03	3.7	1	5	
	NIB	18	2.11	0.471	0.111	1.88	2.35	1	3	
	WB	16	1.88	0.619	0.155	1.55	2.2	1	3	
	Total	66	2.45	1.205	0.148	2.16	2.75	1	5	
Collateral Risk	DB	17	3.94	1.478	0.358	3.18	4.7	1	5	
	AIB	15	3.67	1.718	0.444	2.72	4.62	1	5	
	NIB	18	3.44	0.922	0.217	2.99	3.9	1	5	
	WB	16	2.5	0.816	0.204	2.06	2.94	1	4	
	Total	66	3.39	1.357	0.167	3.06	3.73	1	5	

post hoc test

Dependent Variable		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval				
					Lower Bound	Upper Bound			
					Account_performance	Tukey HSD	DB	AIB	-.216
			NIB	.605	.416	.471	-.49	1.70	
			WB	1.132	.428	.049	.00	2.26	
			AIB	DB	-.216	.436	.960	-1.37	.93
				NIB	.389	.430	.802	-.75	1.52
				WB	.917	.442	.173	-.25	2.08
			NIB	DB	-.605	.416	.471	-1.70	.49
				AIB	-.389	.430	.802	-1.52	.75
				WB	.528	.422	.598	-.59	1.64
			WB	DB	-1.132	.428	.049	-2.26	.00
				AIB	-.917	.442	.173	-2.08	.25
				NIB	-.528	.422	.598	-1.64	.59
Rating_financial_soundness_financial_performance	Tukey HSD	DB	AIB	.275	.444	.926	-.90	1.45	
				NIB	.719	.424	.334	-.40	1.84
				WB	1.504	.436	.006	-.35	2.66
			AIB	DB	-.275	.444	.926	-1.45	.90
				NIB	.444	.438	.741	-.71	1.60
				WB	1.229	.450	.040	.04	2.42
			NIB	DB	-.719	.424	.334	-1.84	.40
				AIB	-.444	.438	.741	-1.60	.71
				WB	.785	.430	.273	-.35	1.92
			WB	DB	-1.504	.436	.006	-2.66	-.35
				AIB	-1.229	.450	.040	-2.42	-.04
				NIB	-.785	.430	.273	-1.92	.35
Banking_Relationship	Tukey HSD	DB	AIB	.133	.401	.987	-.92	1.19	
				NIB	.889	.382	.103	-.12	1.90
				WB	1.125	.394	.029	.09	2.16
			AIB	DB	-.133	.401	.987	-1.19	.92
				NIB	.756	.395	.234	-.29	1.80
				WB	.992	.406	.080	-.08	2.06
			NIB	DB	-.889	.382	.103	-1.90	.12
				AIB	-.756	.395	.234	-1.80	.29
				WB	.236	.388	.929	-.79	1.26
			WB	DB	-1.125	.394	.029	-2.16	-.09
				AIB	-.992	.406	.080	-2.06	.08
				NIB	-.236	.388	.929	-1.26	.79
Management_Quality	Tukey HSD	DB	AIB	-.106	.450	.995	-1.29	1.08	
				NIB	1.405	.429	.009	.27	2.54
				WB	2.044	.442	.000	.88	3.21
			AIB	DB	-.106	.450	.995	-1.08	1.29
				NIB	1.511	.444	.006	.34	2.68
				WB	2.150	.456	.000	.95	3.35
			NIB	DB	-1.405	.429	.009	-2.54	-.27
				AIB	-1.511	.444	.006	-2.68	-.34
				WB	.639	.436	.465	-.51	1.79
			WB	DB	-2.044	.442	.000	-3.21	-.88
				AIB	-2.150	.456	.000	-3.35	-.95
				NIB	-.639	.436	.465	-1.79	.51
Collateral	Tukey HSD	DB	AIB	.275	.452	.929	-.92	1.47	
				NIB	.497	.431	.659	-.64	1.63
				WB	1.441	.444	.010	.27	2.61
			AIB	DB	-.275	.452	.929	-1.47	.92
				NIB	.222	.446	.959	-.95	1.40
				WB	1.167	.458	.063	-.04	2.38
			NIB	DB	-.497	.431	.659	-1.63	.64
				AIB	-.222	.446	.959	-1.40	.95
				WB	.944	.438	.147	-.21	2.10
			WB	DB	-1.441	.444	.010	-2.61	-.27
				AIB	-1.167	.458	.063	-2.38	.04
				NIB	-.222	.446	.959	-1.40	.95

## CAMPARI

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.927	.940	7

SC'S

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.973	.980	5

5P'S

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.971	.972	5

LAPP

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.971	.973	4

FAPE

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.989	.990	6

IRG

**Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.978	.979	5

## Questionnaire

Dear sir/madam,

I am conducting a research on “Customer Specific Factors Affecting Lending Decision of Commercial Banks: a case study of some selected banks in Ethiopia”. This project research is conducted in partial fulfillment of the masters of Degree in accounting and finance. The survey is intended to identify lending model which commercial banks apply in their credit decision, which factor most affect the lending decision and to check whether the bank’s lending model is uniform across the industry. The researcher will investigate which customer specific factors most affect the lending decision of Banks in Ethiopia, especially in the top three private commercial banks in respect of their average annual lending.

Please note that the survey is developed to be anonymous and I, the researcher, will have no way of connecting the information to you personally or to your bank. The questionnaire will not take more than 20 minutes of your time. I do not foresee that you will experience any negative consequences by completing this questionnaire. The researcher will keep any individual information provided herein confidential, not to let it out of his possession, and to analyze the feedback received only at a group level.

It will be a great contribution if you may complete all the items covered in the questionnaire since your opinion is of utmost importance.

I thank you in advance for sharing your valuable experience and time in completing the questionnaire.

### Part I

This part of the questionnaire covers items related to background of the respondents (Please put in the appropriate box)

1. Please indicate your Educational level

Certificate  Diploma  BA degree  MBA  others specify

2. Please indicate your current position in the Bank.

Loan officer  Director/Manager Credit

Loan clerk  S/ Relationship Manager

S/Credit Analyst  Recovery/Monitoring officer

Branch manager

Others, please specify \_\_\_\_\_

3. Would you please indicate your work experience in the Banking industry?

Less than one year	<input type="checkbox"/>	11- 15 years	<input type="checkbox"/>
1-4 years	<input type="checkbox"/>	16 - 20 years	<input type="checkbox"/>
5- 10 years	<input type="checkbox"/>	above 20 years	<input type="checkbox"/>

4. How long you have been working in credit processing?

1- 4 years	<input type="checkbox"/>	11- 15 years	<input type="checkbox"/>
5- 10 years	<input type="checkbox"/>	above 20 years	<input type="checkbox"/>
16 - 20 years	<input type="checkbox"/>		

## Part II

The following questions are asked to identify the lending models and its factors in use in your bank. (5-10)

5. Do your bank apply lending model for its credit decisions?

Yes \_\_\_\_\_ No \_\_\_\_\_

6. If your answer for question # 5 is “yes” Which method does your bank mostly use in evaluating credit application?

- a. **CAMPARI** \_\_\_\_\_
- b. **The 5 C's Credit** \_\_\_\_\_
- c. **The 5p's** \_\_\_\_\_
- d. **LAPP Method** \_\_\_\_\_
- e. **Internal risk grading** \_\_\_\_\_
- f. **If any other, please specify.** \_\_\_\_\_

7. If your answer for question # 5 is “No” please describe how credit decisions are passed on customers’ loan application.

---

---

### Part III

This part of the questionnaire covers items related to lending model factors that you considered in your credit decisions. Please indicate how much important each of the following models and their factors by putting on best represents your opinion. (1) Less Important, (2) Indifferent, (3) Important and (5) Extremely Important

8. If your bank uses the **CAMPARI** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>NO</b>	<b>Lending models and its factors</b>	<b>Rank of importance</b>
<b>CAMPARI</b>		<b>Max 7</b>
1	- Character	
2	- Ability to Pay	
3	- Margin of finance	
4	- Purpose	
5	- Amount	
6	- Repayment term	
7	- Insurance	

9. If your bank uses the **5c's** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>No</b>	<b>Lending models and its factors</b>	<b>Rank of importance</b>
<b>5C's Credit</b>		<b>Max 5</b>
1	- Capacity	
2	- Collateral	
3	- Condition	
4	- Capital	
5	- Character	

10. If your bank uses the **5P's** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>No</b>	<b>Lending models and its factors</b>	<b>Rank of importance</b> Max 5
<b>5 P's</b>		
1	- People	
2	- Purpose	
3	- Payment	
4	- Protection	
5	- Prospective (Plan)	

11. If your bank uses the **LAPP** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>NO</b>	<b>Lending models and its factors</b>	<b>Rank of importance</b> Max 4
<b>LAPP</b>		
1	- Liquidity	
2	- Activity	
3	- Profitability	
4	- Potential	

12. If your bank uses the **FAPE** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>NO</b>	<b>Lending models and its factors</b>	<b>Rank of importance Max 6</b>
<b>FAPE</b>		
1	Liquidity ratios	
2	Profitability ratios	
3	Operation ratios	
4	Debt ratios	
5	Character	
6	Credit Record	

13. If your bank uses **Internal Risk Grading system** in evaluating the credit application of your customers please rank them applying 1 to the least important, 2 to the next and so on. The highest grade to the most important.

<b>No</b>	<b>Lending models and its factors</b>	<b>Rank of importance Max 5</b>
<b>INTERNAL RISK RATING</b>		
1	Account performance and /or track record of the borrowers	
2	Rating financial soundness, financial performance or position	
3	Management Quality	
4	Banking Relationship	
5	Collateral Risk	

14. Do you apply the same kind of lending model to different business segments? Like corporate customers , SME, business customers etc

Yes \_\_\_\_\_ No \_\_\_\_\_

15. If your answer for question # 10 is “NO” please indicate which lending model that you apply to:

**SME customers (< 3,000,000 loan amount requested)** \_\_\_\_\_

**Business customers (> = 3,000,000 but <= 5, 000,000)** \_\_\_\_\_

**Corporate customers (>5,000,000)** \_\_\_\_\_

**Consumer loans** \_\_\_\_\_

16. Please provide your level of agreement to the following

<b>Availability and applicability of lending module</b>		<b>1 Strongly agree</b>	<b>2 Agree</b>	<b>3 Neutral</b>	<b>4 Disagree</b>	<b>5 Strongly disagree</b>
<b>1</b>	There is credit policy and procedure which clearly show how the lending module to be applied					
<b>2</b>	There are time when credit lending canons are overridden by directors, senior management influential staffs					
<b>3</b>	The bank has defined weighting point for each factors of the landing model in use					
<b>4</b>	The entire credit apprising and approval work flow takes in to account all factors of the lending module of the bank.					

17. If you have any other comments and /or information please write here below.

---



---



---



---



---



---



---



---



---



---

*hank you for your time!*