TRANSACTION COST DETERMINANTS OF CREDIT GOVERNANCE STRUCTURES OF COMMERCIAL BANKS IN TANZANIA

HERIEL EMANUEL NGUVAVA

A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY OF THE OPEN UNIVERSITY OF TANZANIA

2016

CERTIFICATION

The undersigned certifies that he has read and hereby recommend for acceptance by The Open University of Tanzania a Thesis entitled "**Transaction cost determinants of credit governance structures of commercial banks in Tanzania**" in fulfilment of the requirements for the Degree of Doctor of Philosophy of The Open University of Tanzania.

……..……..

Prof. Deus D. Ngaruko

(Supervisor)

…….

Date

COPYRIGHT

DECLARATION

I, **Heriel Emanuel Nguvava**, do hereby declare that this thesis for the degree of Doctor of Philosophy is my own original work and it has not been submitted and will not be presented to any other university or any other institution of higher education for a similar award.

……

Signature

……

Date

DEDICATION

This thesis is dedicated to my wife Haika and my children, Helga and Harvey for their unconditional support and endurance of my long working hours throughout my studies.

ACKNOWLEDGEMENT

I am expressing my sincere appreciation and gratitude to my supervisor Prof. Deus D. Ngaruko of The Open University of Tanzania whose professional guidance, encouragement, constructive criticisms and comments have made this thesis a success.

I am sincerely expressing my appreciation and gratitude to Tanzania Public Service College (TPSC) for both financial support and for relieving me some duties and responsibilities so I can complete my studies.I am also thankful to all academic and non-academic staff of Tanzania Public ServiceCollege for their academic and moral support during the whole period that I was pursuing my PhD degree.

I am extending my appreciation to all commercial banks in Tanzania for granting me access to their data during data collection and in particular credit officers and all those who were responsible with control and administration of credits for taking their time and fill my questionnaires. Their unconditional support and contributions made this thesis a reality.

Above all, I thank almighty God who made it possible to complete my studies.

ABSTRACT

The general objective of this research was to assess transaction cost determinants of credit governance structure of commercial banks in Tanzania. Structured questionnaires for survey were administered and sufficient data was obtained for analysis. A quantitative descriptive design was adopted by the current study.Due to inability to determine sampling frame for this sample population, a non- probabilistic (purposive) sampling technique was followed.Descriptive statistics, linear regression model, binary logistic regression and multinomial logistic regression models were employed for analysis.Study findings revealed that, urban based credit customers can beeasily identified, their information gathered and monitored, commercial banks preferred dealing with them directly because they involves low credit transaction costs. On top of that, current study revealed four different credit governance structures that may be used by commercial banks to penetrate rural based credit market without fear of high transaction costs. These modes of CGSs might be used to absorb transaction costs, allow commercial banks credit operations scale up to rural areas and easy accessibility of credit facility to majority of Tanzanians. Further the study revealed credit monitoring and enforcement costs to be the highest category of TCs under commercial banks credit operations in Tanzania. Time costs, transport costs, local authority fees, meeting facilitation costs,lawyer fee, business viability measuring, food and refreshments costs, contract breaching costs, case filing costs, third party hiring costs, tips and other charges were revealed as specific elements of transaction costs used as determinants of choice of an efficient credit governance structure of commercial banks in Tanzania.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

LIST OF ABBREVIATIONS

AgFiMS	Agricultural Finance Markets Scoping
ATTC	Average Total Transaction Costs
BOT	Bank of Tanzania
BR	Borrowers
CB	Commercial Banks
CGS1	Credit Governance Structure One
CGS2	Credit Governance Structure Two
CGS3	Credit Governance Structure Three
CGS4	Credit Governance Structure Four
CGSs	Credit Governance Structures
CRB	Credit Reference Bureau
CRDB	Cooperative and Rural Development Bank
DR	Direct Channel
EC	Enforcement Costs
FSDT	Financial Sector Deepening Trust
GOT	Government of Tanzania
GSs	Governance Structures
IMF	International Monetary Fund
MSMEs	Micro, Small and Medium Enterprises
NBC	National Bank of Commerce
NC	Negotiation Costs
NGO	Non-Government Organization

NIE	New Institutional Economics
NMB	National Microfinance Bank
NPI	Non- Profit Intermediary
PC	Pearson Correlation
PIB	Profit Intermediary Banks
PIM	Profit Intermediary Microfinance Institutions
PPF	Production Possibility Frontier
SACCOS	Saving and Credit Cooperative Societies
SC	Information Search Costs
SME	Small and Medium Enterprises
SSA	Sub-Saharan Africa
TC	Transaction Costs
TCCGS	Total Costs for Credit Governance Structure
TCD	Transaction Costs Determinants
TCE	Transaction Costs Economics
TEC	Total Enforcement Costs
TNC	Total Negotiation Costs
TPSC	Tanzania Public Service College
TSC	Total Search Costs
TTC	Total Transaction Costs
URT	United Republic of Tanzania

CHAPTER ONE

INTRODUCTION

1.1 Background Information

Transaction cost is an important determinant of choice of the best credit governance structure of commercial banks in Tanzania. As suggested by Williamson (2010), in his analysis of transaction cost economics theory, where transaction costs is too high, beyond acceptable levels, there may not be transaction at all. Such behavior is portrayed by commercial banks in Tanzania, where most of them provide credit services to urban based customers and ignored rural based customers since transaction costs are very high in rural areas.

According to Finscope survey (2013), only 6.8% of Tanzanians who live in rural areas have access to financial services from banking sector. Information gap between commercial banks and rural based borrowers was a major setback on commercial banks behavior of dealing directly with individual borrowers, resulting in high transaction costs. High transaction costs influence commercial banks decision not to provide credit services at all to rural based borrowers, in turn negatively affecting both commercial banks and rural based population, (FSDT, 2013).

Since liberalization of banking industry of Tanzania in 1991, commercial banks mostly preferred to directly deal with customers as far as credit provision services is concerned. This tendency resulted in limited credit supply from commercial banks to most part of the country, especially rural areas due to inability to manage associated credit transaction costs as reported by AgFiMS (2011). Major challenges in rural

finance in Tanzania relate to information gaps which fall into three categories: (i) Knowledge of rural demand and market segmentation by financial institutions; (ii) Financial illiteracy of rural borrowers; (iii) Commercial banks knowledge of best channels/methods for penetration to rural based market at low transaction costs (TCs), FSDT (2013).

Information is a key input that goes into the credit decision of commercial banks. One of the challenges for commercial banks is to acquire information about the credit risk of the borrower, as borrowers have more information than the lender about the projects (Myers & Majluf, 1984). Transaction cost economic theory argues that banks are not interested in offering credit to MSMEs, farmers and poor households because information asymmetries resulting to high screening costs, credit contracts negotiation costs, monitoring, and enforcement costs.

Under asymmetric information conditions commercial banks are uncertain about the future behavior of the borrower in terms of repayments. High transaction costs problems are more likely to occur when commercial banks deal with MSMEs, farmers and poor households especially in developing countries rural areas due to higher opacity (Berger *et al.*2001; Beck *et al.*2004; Hyytinen and Pajarinen, 2008; Cole 2004). By opaqueness means, it is difficult to ascertain if borrowers have the capacity to pay (have viable project) and/or willingness to pay (due to moral hazard) (Beck, 2010). Information asymmetry between borrowers and the commercial banks is reflected in inability of the majority of rural based borrowers to provide up to date reliable financial information and realistic business plans, which increases credit transaction costs. Consequently limits the ability of banks to assess the credit-

worthiness of the individual borrowers. And therefore commercial banks believed to be better-off with some few known credit worth urban based customers, Kessy and Temu (2010).

The argument of information asymmetry is supported by Olomi (2009) and Kibassa (2012) who emphasized that poorly compiled records and financial accounts coupled with inability of rural based borrowers to properly express their knowledge about business opportunities aggregates the lack of adequate information by commercial banks. Therefore increases credit transactions costs, when dealing with rural based borrowers in Tanzania. Satta (2003; 2006) amplify this argument by pointing out lack of adequate and reliable collateral, lack of appropriate instrument to manage risk, not being familiar with complicated information about rural based borrowers and perceived risks make Commercial banks in Tanzania become unwilling to provide the much-needed finance particularly to rural based borrowers.

Therefore due to issues described above, Commercial banks opt not to provide credits at all or to ration and tighten requirements in order to protect themselves from likely opportunistic behavior of borrowers. With an appropriate choice of a credit governance structure (CGS) as determined by transaction costs, commercial banks will be able to penetrate the rural based market, small and emerging commercial banks will enter into credit supply business. Hence increases competition, credit accessibility and in turn lower borrowing interest rates, (Mkenda and Campenhout, 2011), Unfortunately the environment for commercial bank's credit operation is not conducive due to inadequate infrastructure/facilities for smooth banking operations, difficulties in identification/accessibility of information for potential

customers/borrowers and nature of customers (who wants many but small sized credits/loans. Bureaucratic procedures and red tapism by village and district councils, lack of collateral or collateral of low market values. These are some of the barriers that make banking operations in URT to be very costly and inefficient, especially for small private commercial banks, (BOT, 2011).

The liberalization of banking industry in 1991 aimed at allowing many private commercial banks to enter the industry thus increasing competition in provision of banking services, i.e. credit service, increases accessibility of banking services by many, lowering banks credit interest rates and ultimately eliminating monopoly of three banks CRDB, NBC and NMB within the industry. Currently still the environment is not conducive to allow efficient operations for most private commercial banks to provide credit services especially in rural areas due to above problems that lead to high transaction costs as suggested in Tanzania banking sector performance report of 2010, (BOT, 2010).

Few large commercial banks that were previously supported by GOT, i,e CRDB, NBC and NMB were able to absorb high transaction costs of providing credits in most part of the country, even in rural areas and yet attain super profits at expense of the borrowers. Since they shift such high costs as an interest element to borrowers. These few big banks to some extent are monopoly in nature when it comes to provision of credit facility in URT. Hence the environment for credit provision and governance structure/channels for credit supply need to be properly assessed, analyzed and designed. This will allow many commercial banks to provide credits in both rural and urban markets, increases competition, lowering transaction costs and

borrowing interest. Ultimately minimizes transaction costs of offering credits by commercial banks in Tanzania and maximizes profitability.

1.2 Statement of the Problem

Despite their ability to incur high transaction costs, only a few commercial banks in Tanzania enjoy high profit levels at the expense of borrowers by shifting the burden of high transaction costs to borrowing interest rates. Such banks could be considered efficient in some ways in terms of observed non-transaction cost attributes like volumes of credits given out, profitability, and repayments. Williamson (2000, 2001) suggested that when the cost of carrying out a transaction is too high, there won't be transaction at all hence where the banks are not operating they are by implication, considered inefficient in transaction cost terms. Coarse (1984, 1992) argued that, firms with ability to absorb high transaction costs, enjoy high profit volumes. In Tanzania few big commercial banks have to some extent, monopolized the market for credit supply due to their ability to absorb transaction costs.

Recent studies in Tanzania on efficiency of commercial banks focused on conventional approaches of measuring efficiency and performance through analyzing banks profitability, repayment rates, accessibility to services, geographical coverage, transformational/operational costs, interest rates, number of borrowers, productivity and portfolio quality, (Wangwe, 2004; Aikaeli, 2008; Ernst & Young, 2010; Serengeti, 2012). This study focused on transaction cost as determinants of efficient CGSs of commercial banks in Tanzania, for credit operations scale-up purpose.Other scholars have done researches on application of transaction costs on Credit Governance structures (CGS). Their focus was mainly on demand for credits and not

supply side. Ngaruko(2008) focused on how economic reforms of Tanzania influenced diversity characteristics of farmers, their farm investment and ultimately their demand on agro-credits. He made his analysis through application of transaction costs theory. Mkenda and Campenhout(2011) conducted a research on estimation of transaction costs in Tanzania supply chain. They focused their analysis on commodity exchange of agricultural products. Current study focus on how transactions cost determine the best CGS of commercial banks in Tanzania.

Current study recognizes the need to assess structures that govern credit supply by commercial banks. Thus to identify and advice on the most suitable CGS given transaction costs. Since the amount of transaction costs incurred by banks in supplying credits influences choice of a CGS. With cost efficient CGS, small commercial banks will enter into credit supply business. Hence increases competition, credit accessibility and in turn lower borrowing interest rates.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this research is to assess transaction cost determinants of credit governance structures (CGSs) of commercial banks in Tanzania.

1.3.2 Specific Objectives

(a) To describe commercial banks credit governance structures and transaction costs categories in credit administration.

(b)To identify significant transaction costs determinants associated with credit governance structures of commercial banks to current and potential customers.

(c) To analyze effects of transaction costs on choice of credit governance structures by commercial banks

1.4 Research Hypothesis

(a) There is no relationship between total costs for supplying credits directly to borrowers and credit supply through profit intermediary banks.

(b) There is no relationship between time variable and total transaction costs.

(c) There is relationship between transaction costs and credit governance structures

(d) There is relationship between transaction costs and choice of urban based customers

1.5 Research Significance

(a) It will improve understanding on the economics theory of transaction cost and its relevance on formal financial institutions operations (i.e. commercial banks) in Tanzania.

(b) It will assist experts and the government of URT in Financial policy modification, formulation of rules and regulations that govern financial institutions operations as well as creation of conducive environment for availability of credit facilities and other financial services to majority of Tanzanian.

(c) It will serve as a reference for anyone who will be interested to carry out a research on credit supply governance structures and their associated transaction costs for commercial banks in Tanzania.

1.6 Organization of the Thesis Report

This thesis is organized into six chapters. Chapter one introduces the study by presenting relevant background information, problem statement, study objectives, research hypotheses, and study significance. Chapter two presents a detailed review of the literature related to status of banking industry and credit services, transaction cost economics and governance structures. The chapter further present's theories related to credit supply. Study conceptual framework which forms a basis of analysis of issues related to transaction costs as determining factor of an efficient choice of credit governance structure for commercial banks credit supply in Tanzania, was presented in this chapter. Chapter three presents a description of the methodology of the study. It includes the research philosophy,study area, sampling techniques, methods for data collection and analysis. Chapter four presents the findings and discussions of the study. The chapter specifically presents alternative modes of CGSs and their comparisons in terms of preferences, costs and customer categories. A detailed analysis of transaction cost categories has been done. Chapter five critically analysed causality effects of transaction costs categories and specific elements of TCs on TTC. Effects of TCs on choice of an efficient CGS and on choice of urban vs. rural based credit customers have been analysed. Final chapter six presents discussion of key study findings, conclusion and recommendations in terms of policy and areas for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition of Key Terms and Concepts

2.1.1 Transaction Costs

Transaction costs have been broadly defined by Cheung (1989) as any costs that are not conceivable in a "Robinson Crusoe economy". In other words, any costs that arise due to the existence of institutions. For the purpose of this study, the cost of using price mechanisms, which means the cost of carrying out transactions by way of exchange in an open market system is referred to transaction cost. This definition was given out by Coarse (1937, 1960, 1984, and 1992).

2.1.2 Governance Structure

Is the arrangement made between contracting parties with an intention to protect their relationship-specific investments at the possible least cost, as suggested by (Klein, 1999).A set of rules for regulating and governing contracts (rules and regulations that allow contracts to be enforced in case of default) and complete them, as defined by Williamson (1995, 2000). Thus a set of rules and regulations, procedures and policies (designed structure) for governing credit contracts due to their incompleteness, in this study is referred to governance structure.

2.1.3 Credit

Yunus (1998) defined credit as resources to another party where that second party does not reimburse the first party immediately (thereby generating a debt), but instead arranges either to repay or return those resources (or other materials of equal

value) at a later date. The resources provided may be financial (e.g. granting a loan), or they may consist of goods or services (e.g. consumer credit). For the purpose of this study such resources are financial. Credit encompasses any form of deferred payment. Credit is extended by a creditor, also known as a lender, to a debtor, also known as a borrower. This definition is adopted for this study

2.1.4 Governance Structure Efficiency

Commons (1932) argues that, beyond simple market exchange, the continuity of an exchange relationship was often important and therefore governance structure is chosen in cost effective degree to infuse order and thereby to mitigate conflicts and realize mutual gains. According to Williamson (1971), in transaction costs economics, there are numerous number of governance modes due to incompleteness of contractual relations and investment to specific assets for long term contracts. Governance structure efficiency is achieved whenever the choice among alternative modes of governance is made mainly for the purpose of economizing on transaction costs.

2.2 Theoretical Literature Review

2.2.1 The Credit Theory

Credit theories of money (also called debt theories of money) are concerned with the relationship between credit and money. Proponents of these theories, such as Innes, (1914) emphasized that credit and debt are the same thing, seen from different points of view. Proponents assert that the essential nature of money is credit (debt), at least in eras where money was not backed by a commodity such as gold. Two common strands of thought within these theories are the idea that money originated as a unit

of account for debt, and the position that money creation involves the simultaneous creation of money and debt. Some proponents of credit theories of money argue that money is best understood as debt even in systems often understood as using commodity money.

The Credit Theory generally states that: A sale and Purchase is the exchange of a commodity for credit. From this main theory springs the sub-theory that the value of credit or money does not depend on the value of any metal or metals, but on the right which the creditor acquires to "payment," that is to say, to satisfaction for the credit, and on the obligation of the debtor to "pay" his debt and conversely on the right of the debtor to release himself from his debt by the tender of an equivalent debt owed by the creditor, and the obligation of the creditor to accept this tender in satisfaction of his credit. Implication of this theory is, creation of more credits means creation of more money and attainment of super profits for credits creators (Commercial banks). Thus commercial banks are expected to invest more in credit businesses. Despite that fact, commercial banks in Tanzania are behaving differently; they are not investing in credit business, especially in rural areas. This theory does not give reasons for such behavior.

2.2.2 Micro-Financing Theories

Theories on microfinance suggest that, microfinance aims at provision of financial services to low income households, farmers, micro and small enterprises. Yunus (1998) argues that, microfinance allow provision of microcredit to individuals that lack collateral, steady employment, verifiable credit history and therefore cannot meet even minimum qualification to gain access to traditional credit. Currently in

Tanzania almost every commercial bank has a micro financing window for its customers.

The main purpose is to create a banking system based on mutual trust, accountability, participation and creativity. Thus micro financing window provides credits to poor households, micro and small businesses and farmers situated in most parts of rural areas without a need of collateral. With this ideology, commercial banks were expected to invest more in credit business and lead to expansion of credit facilities throughout the country. Despite that, it has never been the case. Most commercial banks are not investing in credit business and those which are already in exit from credit business. Microfinance theories dot not explain reasons for above facts.

2.2.3 Transaction Cost Economics

Transaction Cost Economics focuses on the organization of transactions that occur whenever a good or service is transferred from a provider to a user across a technologically separable interface. When transactions occur within an organization, the transaction costs can include managing and monitoring personnel and procuring inputs and capital equipment. The transaction costs of buying the same good or service from an external provider can include the costs of source selection, contract management, performance measurement, and dispute resolution. Thus, the organization of transactions, or "governance structure," affects transaction costs as pointed out by Williamson (1989).TCE represents another approach to studying institutional arrangements.

It holds that all but the simplest transactions require some kind of mechanism to protect the transacting parties from various hazards associated with exchange. This mechanism is what Williamson (1995, 2000) refers to as the governance structure. The appropriate governance structure depends on the characteristics of the transaction, thus TCE implies an applied research programme of comparative contractual analysis i.e. how different forms of governance work in various circumstance. For this reason, TCE (associated with Williamson) is sometimes described as the "governance" branch of the NIE, as opposed to the "measurement" branch (associated with Alchian and Demsetz, 1972). TCE is the most widely used approach in NIE (New institutional economics) related researches and in fact, as also pointed out by Hubbard (1997), TCE stands at the heart of NIE.

2.2.3.1 The Economics of Organization: Transaction Costs Approach

The transaction cost approach to the study of economic organization regards the transaction as the basic unit of analysis and holds that understanding of transaction costs economizing is central to the study of organization. Application of this approach require that, transactions be dimensionalized and that alternative governance structures be described. Economizing is accomplished by assigning transactions to governance structure in a discriminating way. The approach applies both to the determination of efficient boundaries, as between firms and markets, and to the organizational of internal transactions, Williamson, (1981).Williamson (2000), pointed out that, the proposition that the firm is a production function to which a profit maximization objective has been assigned has been less illuminating for organization theory purposes than for economics. Even within economics, however,

there is a growing realization that, the neo-classical theory of the firm is self-limiting. A variety of economic approaches to the study of organization have recently been proposed in which the importance of internal organizations is acknowledged. The one described here emphasizes on transaction costs and efforts to economize there on.

Economic approaches to the study of organizations, transaction costs analysis included, generally focus on efficiency. To be sure not every interesting organizational issue can be usefully addressed, except perhaps in a minor way, in efficiency terms. A surprisingly large number can, however, especially if transaction costs aspect are emphasized. This is accomplished by making the transaction rather than the commodities the basic unit of analysis and by assessing governance structures of which firms and markets are the leading alternatives in terms of their capacity to economize on of transaction costs, Williamson (2010).

Efficient Boundaries decided what transactions are to be included in the organization and effectively defines the organizational boundary. If assets are nonspecific, markets enjoy advantages in both production cost and governance cost respects; static scale economies can be more fully exhausted by buying instead of making; markets can also aggregate uncorrelated demands, thereby realizing risk-pooling benefits; and external procurement avoids many of the hazards to which internal procurement is subject. Some advantages of firms over markets include internal organizations are able to invoke fiat to resolve differences and better access to information. Incentive to shift transactions inside the firm increases with uncertainty.Williamson argues in *The Mechanisms of Governance* (1996) that

Transaction Cost Economics (TCE) differs from neoclassical microeconomics in the following aspects: *Behavioral assumptions*, whereas neoclassical theory assumes rationality and ignores most of the hazards related to opportunism, TCE assumes bounded rationality. *Unit of analysis*, whereas neoclassical theory is concerned with composite goods and services, TCE analyzes the transaction itself.

Governance structure, whereas neoclassical theory describes the firm as a production function (a technological construction), TCE describes it as a governance structure (an organizational construction). *Problematic property rights and contracts*, whereas neoclassical theory often assumes that property rights are clearly defined and the cost of enforcing those rights by the mean of courts is negligible, TCE treats property rights and contracts as problematic. *Discrete structural analysis*, whereas neoclassical theory uses continuous marginal modes of analysis in order to achieve second-order economizing (adjusting margins), TCE analyzes the basic structures of the firm and its governance in order to achieve first-order economizing (improving the basic governance structure).*Remediable*, whereas neoclassical theory recognizes profit maximization or cost minimization as criteria of efficiency, TCE insists that there is no optimal solution and that all alternatives are flawed, thus bounding "optimal" efficiency to the solution with no superior alternative and whose implementation produces net gains.

2.2.3.2 Asset Specificity and Transaction Cost

Some goods and services can be produced more efficiently if one of the parties invests in “transaction-specific” assets that cannot easily be put to other uses if the buyer/seller relationship breaks down. Asset specificity can take a variety of forms as

suggested by Williamson (1991), including s*ite* or *location specificity*—a buyer or seller locates its facilities next to the other to economize on inventories or transportation costs. *Physical asset specificity*—investments are made in specialized equipment or tooling designed for a particular customer. H*uman capital specificity*—one or both of the parties develop skills or knowledge specific to the buyer-seller relationship. *Dedicated capacity*—capacity is created to serve a customer who is large relative to market size, so that it would be difficult to find alternative customers and *brand name capital*—the parties must maintain the reputation of a shared brand name; for example, in franchise relationships the reputation of the franchise depends on the behavior of the individual franchisees.

According to Williamson (1991), since the value of the transaction-specific assets depends on the continued existence of the buyer/seller relationship, the party that has not invested may expropriate some of the value of the investment by threatening to walk away from the relationship. If the investor cannot be assured of realizing the full value of the transaction-specific investment, efficient investments that reduce the cost of production may not be made, resulting in higher costs to both parties.

Bounded rationality may also interfere with the efficient operation of transactions. Because of limited managerial time and span of control, organizations cannot effectively manage an unlimited number of transactions internally. In addition, bounded rationality limits the capability of markets and simple contracts to handle asset specificity, because the parties cannot foresee and contract for all possible contingencies, as argued by Williamson (1995, 2000).

2.2.3.3 Governance Structures, Strengths and Weaknesses

For many types of transactions, markets are the preferred governance structure because they provide "high-powered incentives." That is, the supplier reaps the full benefits or bears the full costs of its own activities, and has a strong incentive to maximize value net of production costs, and to respond quickly to changes in the market prices of inputs or outputs. However, Transaction Cost Economics argues that markets have difficulty dealing with some transactions because of asset specificity, bounded rationality, and opportunistic behavior by the parties to the transaction. Since buyers and sellers can easily walk away from pure, spot-market transactions, they offer no protection against opportunism when transaction-specific assets are involved, as pointed out by Williamson (1991).

Williamson (2010) argues that, contracts offer some protection for transaction-specific assets by tying the buyer and seller together for a specified period. However, bounded rationality precludes comprehensive ex ante contracting that specifies how the parties will behave in all possible circumstances. If contracts are inherently incomplete, parties may perceive potential gains from opportunistic behavior. As a result, attention must be focused on more complex (or internalized) governance mechanisms to fill gaps in the contract, settle disputes, and adapt to new conditions. Contracting parties may also make ex ante efforts to screen counterparties in terms of reliability or reputation, and/or design ex post safeguards to protect transaction-specific investments.

When asset specificity, bounded rationality, and opportunism make contracting problems severe, vertical integration may be needed to ensure that the value of

transaction-specific assets is internalized. It can also allow for flexible redeployment of assets and personnel when the conditions surrounding the transaction change. However, bounded rationality limits the span of effective managerial control. Lower-level managers and employees may engage in sub optimizing behavior, or they may have insufficient incentives to minimize production costs. Mohrman (1996) recommended that, if it is feasible to have more than one source of supply, organizations can mitigate some of the negative effects of markets and vertical integration by maintaining both internal and external providers.

Williamson (2010) recommended that, outsourcing part of the workload to an external provider or allowing internal customers the option to buy externally can create incentives for the internal provider to control costs and improve performance by exposing it to market pressures. Conversely, retaining some capability to produce in-house can allow organizations to maintain management competencies needed to make more effective sourcing decisions; retain some leverage over the external provider, particularly when there are only a few potential suppliers; and maintain surge capacity.

2.2.3.4Efficient Governance Structure and Transaction Characteristics

Tadelis (2002) suggested that, efficient governance structure depends on characteristics of transaction costs. Markets provide stronger incentives to maximize value net of production costs. Vertical integration may be a more cost-effective governance structure for transactions involving asset specificity. The central recommendation of TCE is that the governance structure for a particular transaction should be chosen to maximize value net of both production and governance costs.

Thus in making outsourcing decisions, it is important to consider not only the internal and external costs of providing the good or service, but also the cost of managing the transaction internally and externally.

Williamson (1995) also added that, market governance of transactions may impede efficient investment in transaction-specific assets because of the potential for opportunistic behavior. Contracts can protect transaction-specific investments to some extent, but bounded rationality prevents contracts from specifying all possible contingencies. As contracts become more flexible, they allow more potential for opportunism. Thus when asset specificity, combined with the potential for opportunism and bounded rationality, organizations should not settle for spot markets, simple short term contracts and long term contracts only but also consider use of relational contracts and vertical integration. However, bounded rationality also places a limit on the number of activities that can be controlled within a single organization, so firms should only internalize transactions that they can govern more effectively than through markets or contracts.

2.2.4 Determinants of Bank's Credit Supply

In a recent study Guo and Stepanyan (2011) indicated that domestic and foreign funding are positively associated with the credit growth. The stronger economic growth leads to higher credit growth, whereas higher inflation lessens the real credit growth in the economy. Monetary policy has also a significant impact on credit growth, the soft monetary conditions of the country as well as global, lead to more credit, and finally the strong banking sector positively influence credit growth. Chernykh and Theodossiou (2011), by using a sample of Russian banks, found that

the median banks assign only 0.5 percent of its total assets in terms of long-term loans to business and there is large cross-sectional disparity in this ratio among banks.They argued that the bank's capacity to expand long-term business loans depends on various factors including its capitalization, size and the availability of long-term liabilities, however, the ownership of banks did not matter. They also concluded that the banks hesitated to issue business loans with more than three years maturity.

Chernykh and Theodossiou (2011), their results exhibit that the banks with lower level of capital, the banks having lower funding for long term loans and banks in most competitive areas are reluctant to supply long term loans. They considered weak creditor rights protection, enforcement and the low creditworthiness of risky borrowers as other hurdles in providing long-term loans to firms. According to Aisen and Franken (2010) prior to financial crisis the bank credit growth was larger as compared to post crisis period. Using a sample over eighty countries they also concluded that the countercyclical monetary policy and liquidity position of the banks played a crucial role and lessened the bank credit reduction in the post crisis era.

These findings advocate that the countries should follow the appropriate institutional and macroeconomic structure favorable to countercyclical monetary policies. They also found that the countries responding differently in various regions of the world, due to diversity in countries' structural characteristics e.g. financial depth and integration.

Takats (2010) studied the bank lending behavior and empirically found that during the financial crisis the cross-border bank lending declined sharply. Using the data of twenty-one emerging markets, he concluded that during the financial crises the demand and supply factors contributed to the fall in bank lending, but the impact of supply factors were dominant.

However, both the factors appear to have more balanced effects in pre-crisis period. Furthermore, supply shock was the key determinant of slowdown in cross border lending to emerging economies. The credit growth before the crisis was vastly different across countries and regions. During the post crisis period the emerging markets experienced a considerable slowdown in credit growth (Guo and Stepanyan 2011) compared to pre-crisis period. Most developing economies also face slowdown in post crises period.

2.3 Empirical Literature of Banking Industry

Financial sectors are generally underdeveloped in Sub-Saharan Africa, with banking systems accounting for the majority of financial sector assets and activities. Kasekende (2010) suggested that, as a result of reforms, the depth and coverage of financial systems–as measured by the ratios of broad money and private sector credit to GDP–has been gradually increasing over the past decade. But the scale of financial intermediation in the region remains significantly lower than in other developing regions of the world, while access to financial services is also relatively low, reflecting a combination of low income levels, small absolute size, and infrastructure weaknesses. Confirming these observations, a recent World Bank study notes that SSA typically scores lowest among the world's developing sub-

regions on various dimensions of financial development, such as depth and efficiency of financial institutions (Čihák, 2012).

Most banking systems in sub-Saharan Africa are small in absolute and relative size. They are characterized by low loan-deposit ratios and, as a corollary, large shares of assets held in the form of government securities and liquid assets. Lending is mainly short-term in nature, with about 60 percent of loans having a maturity of less than one year.SSA banks are typically high-cost operations notwithstanding the concentration of branches in a small number of urban centers.

As a corollary, interest rate spreads and service fee levels are comparatively high. Foreign banks play a key role in SSA banking systems, having recovered market share as banking systems were restructured and state banks privatized under reform programs in the 1980s and 1990s. Finally, banking systems are characterized by modest reach in terms of providing financial services to the population; the share of the population that is unbanked is very large, with SMEs typically tightly constrained in their access to any form of credit, (Čihák, 2012).

The stylized features of SSA banking systems reflect a combination of factors, including the small absolute size of banks and banking systems; low income levels, large informal sectors, and low levels of financial literacy; weak contractual frameworks for banking activities, including weak creditor rights and judicial enforcement mechanisms; and political risk (McDonald and Schumacher, 2007; Andrianaivo and Yartey, 2009; Beck and others, 2011). In many countries, banking systems are characterized by significant excess liquidity, reflecting the scarcity of

what banks deem to be credit-worthy borrowers. In such circumstances, monetary policy is relatively ineffective as a tool for influencing lending conditions and the broader monetary aggregates (and, by extension, economic activity and inflation).

Following reform programs introduced in the 1980s and 1990s, banks have moved to strength their capital bases and improve risk management (Mlambo, Kasekende, and Murinde, 2012). In addition, the reduced role of state-owned banks or, in some cases, their reorientation towards operating on commercial lines has contributed to the strengthening of banking systems' financial health. As a result, the incidence of systemic banking crises –a relatively common event in SSA in the 1980s and early 1990s –has declined markedly, with only one major crisis recorded since 1995 African banking systems rely on the domestic economy for their funding base, with funding from non-residents a very minor source of funds in almost all cases.This is in many ways a demand-side phenomenon, the limited supply of what banks deem to be credit-worthy borrowers is a binding constraint on the growth of lending activity in most countries.

The banking sectors in East African Community countries dominate their financial sectors. However, the development and sophistication level of the banking sectors varies significantly across the region, with Kenya having one of the most dynamic and largest banking sectors in sub-Saharan Africa, and a significant presence in the other EAC countries.

The banking sectors of the other four countries are concentrated on their local markets. The sophistication of capital markets in EAC differs across the region, but

in general, they remain underdeveloped. There are important cross-country differences, with some markets at an early stage of development, while Kenya's market is reasonably well-developed in sub-Saharan African context, (Mlambo, Kasekende, and Murinde, 2012).The less developed domestic debt markets are shallow and narrow as pointed out by Kasekende (2012). They are characterized by short-term maturities, limited investor base, and illiquid secondary markets, among others, and are dominated by government securities. Stock markets also remain underdeveloped, with secondary markets either illiquid or non-existent. In general, EAC capital markets have not played a major role in resource mobilization and long-term financing of their economies. They are yet to be developed to a level that could make them a significant complement and/or an important alternative to banking intermediation.

Similarly, insurance companies and pension funds in the EAC region remain underdeveloped and offer only a limited array of financial instruments to a limited set of clients. Thus, there is potential for these business lines to be developed further to better serve the needs of the individuals/enterprises and their economies in general. In addition, as they grow and become more and more interlinked with banks, insurance companies and pension funds are increasingly contributing to the potential risks to the stability of the financial systems, (Kasekende,2010).

The banking sectors in EAC consist mainly of commercial banks, while Rwanda and Burundi also have a development bank. In addition, the EAC members also share a common development bank, the East African Development Bank (EADB). Furthermore, all five countries have brought some microfinance institutions (MFIs)

under the regulation of their central banks, which have become a part of the banking system. These institutions may either be microfinance banks, deposit or non-deposit taking MFIs, (Sanya and Gaertner, 2012).EAC banking sectors are rather concentrated and empirical evidence suggests that the banking sectors are most accurately characterized as monopolistic competition (Sanya and Gaertner, 2012). While there are no regulatory barriers to competition per se, in most countries across the region former state-owned/legacy banks retain a very large market share despite steps to reduce regulatory barriers to entry and exit and to attract increased participation from foreign banks. The latter indeed have a very significant market share in the region, which makes it difficult for (non-dominant) local banks to compete as they typically have access to lower cost of financing and superior technology from parent banks.

In this context, it is not surprising that the empirical evidence shows that foreign banks have not increased competition in the region (Sanya and Gaertner, 2012). In order to improve competition and access to finance, empirical evidence further suggests that the region will have to tackle obstacles such as legal infrastructure (collateral, foreclosure, bankruptcy), financial infrastructure (credit bureaus, payment systems), and market segmentation due to a large legacy and foreign-bank presence. Against this background, it is not surprising that interest-rate spreads and the cost of finance remain high.

Tanzania banking sector experienced fundamental changes over the last decade during banks and other financial institutions reforms starting early 1990s. Despite that, what is still hidden is the extent to which banks are efficient in Tanzania.

Banking industry in Tanzania is open to entry and therefore it is highly contestable. Commercial banks in the country can be subdivided into three major categories: large domestic banks; subsidiaries of the major international banks; and small banks. About 50 percent of the total banks' assets are held in the large domestic banks while subsidiaries of the major international banks account for 40 percent and the small banks hold the remaining 10 percent, (BOT, 2010).

Commercial banks hold a unique position in most economies as creator of money, the principal depositories of the public financial savings, the primary allocator of credit and manager of country's payment systems. They therefore perform an intermediate function as gatherers of deposits and allocator of credits. It is through this function banks contribute in the financial growth of the country as reported by Kim (1987). The banking system in Tanzania has a long history from the colonial era to the times of socialism regime and now to the market oriented economy. There have been changes in the sector after the era enactment of the banking and financial Institutions Act 1991.

The state owned banks have been restructured and the private banks licensed to carry out the banking business. In 1967 all private banks were nationalized by the government, under the NBC Act 1967, all commercial banks were merged into one bank "The National Bank of Commerce". It was hoped that a nationalized banking system, would transcend the limitation of the foreign banks and attain; Rapid extension of banking facilities throughout the country, accelerated rate of savings mobilization, efficient distribution of credits through the banking system according

to nation priorities and modest profit for the government. The banking sector eventually became a monopoly one, (Wangwe, 2004).

Unexpectedly the banking sector performed poorly partly because of undue government interferences and partly due to the in effective banking legislation that was in operation at that time. In 1991 an Act was enacted to consolidate the law relating to banking and harmonize the operations of all the financial institutions in Tanzania. It was and still is expected that, the Act will foster sound banking activities and regulate credit operations. Wangwe (2004) found that up to 1993 the banking system consisted entirely of in solvent and in efficient government owned banks. The largest being the National Bank of Commerce which for stance accounted for 90 percent of Commercial Bank deposits. The Cooperative and Rural Development Bank which accounted for five percent of the sector.

For most of the period since the late 1960s and 1970s the Tanzanian financial sector was mainly government-owned with pervasive government interference in the financial system. Credit was directed on the basis of government priorities with little regard to credit-worthiness, and banks were convenient agents of fiscal policy. Two institutions, the National Bank of Commerce (NBC) and the Cooperative and Rural Development Bank (CRDB) were dominant in providing financial services. NBC provided working capital and other short term finance to agriculture and other rural activities. CRDB provided development finance to rural development activities. These two institutions had virtual monopoly in their functional areas. Each institution was governed by its own stature and the Bank of Tanzania's (BOT) supervisory role

had been limited. Finally, the environment in which the formal financial institutions operated was also regulated by the state, (BOT, 2000).

It was further elaborated in the report, BOT (2000) that credit was allocated administratively by the BOT which established legal ceiling in bank lending and deposits in addition to regulating interest rates. In the prevailing environment, the financial sector's performance was very poor and savings mobilization was neglected, credits to cooperatives increased, and no pressure was applied on borrowers to repay. The Government of Tanzania's (GOT) policies resulted in over-staffed and inefficient banks. These credits policies led in 1988 to 70% of NBC's loan/credits portfolio to be in arrears and 95% of this was accounted for by parastatals and a substantial share by cooperatives.

The Cooperative Rural Development Bank's (CRDB) rural sector credit portfolio was no better, with 66% of its credit portfolio in arrears as of end 1988.With a non-performing loan/credit portfolio and unable to attract deposits. The formal financial sector was bankrupt, and dependent on financing from the GOT. In response to the difficult financial position, in 1991, GOT enacted the Banking and Financial Institutions Act which liberalized the banking industry of Tanzania. Private banks were licensed and allowed to carry on banking business throughout the country, as indicated in the report of BOT (1996).

2.4 Summary of Concepts, Theories and Empirical Literature

Several terms and concepts were used in the current study, including transaction costs, governance structure, credit and governance structure efficiency. Transaction

costs as used in the current study means the cost of using price mechanisms, or the cost of carrying out transactions by way of exchange in an open market system. This definition was given out by Coarse (1937, 1960, 1984, and 1992).Williamson (1995, 2000), defined governance structure as a set of rules and regulations, procedures and policies (designed structure) for governing credit contracts due to their incompleteness, this definition was adopted in this study.

The accepted definition of credit in current study was given by Yunus (1998) as resources to another party where that second party does not reimburse the first party immediately (thereby generating a debt), but instead arranges either to repay or return those resources (or other materials of equal value) at a later date. For purpose of current study, as suggested by Williamson (1971), there said to be governance structure efficiency whenever the choice among alternative modes of governance is made mainly for the purpose of economizing on transaction costs.

Several theories were studied before transaction cost economics theory was selected as the guiding theory for current study. The credit theory by Innes (1914), emphasized that, money and credit were one and the same. Implication of this theory was, creation of more credits means creation of more money and attainment of super profits for credits creators (Commercial banks). Thus commercial banks were expected to invest more in credit businesses. Despite that fact, commercial banks in Tanzania are behaving differently; they are not investing in credit business, especially in rural areas. This theory does not give reasons for such behavior. Transaction cost economics theory does.

Microfinance theories as pioneered by Yunus (1998) aimed at providing credits to poor households, micro and small businesses and farmers situated in most parts of rural areas without a need of collateral, steady employment or verifiable credit history and therefore cannot meet even minimum qualification to gain access to traditional credit. With this ideology, commercial banks in Tanzania were expected to invest more in credit business and lead to expansion of credit facilities throughout the country. Despite that, it has never been the case. Most commercial banks despite of having a micro financing window, were not investing in credit business and some of those which were already in, exit from credit business. Microfinance theories do not explain reasons for above facts. Transaction cost economics theory does.

Transaction cost economics theory, this was the main and guiding theory for the current study. It was pioneered by Coarse (1937) and Williamson (1971). Though it is a new theory since it is currently being tested in a number of sectors, it gave answers to most unanswered questions from the credit theory and Microfinance theory. According to this theory, when transaction costs is too high, there may not be transaction at all, due to in ability of transacting parties to absorb such high costs, this behavior is observed in commercial banks credits operations in Tanzania, particularly in rural areas.

This theory provides solution by further suggesting that, if transacting parties will develop contractual arrangements/ alternative modes of governance structures to protect them against opportunistic behavior and absorb high transaction costs, credit transactions will take place at mutual gain despite presence of high transaction costs.Since liberalization of banking industry of Tanzania in 1991, a number of

private commercial banks were formulated and state owned banks were privatized, Wangwe (2004). Currently there are at least 34 registered and licensed commercial banks, that operate in Tanzania main land and Zanzibar, BOT (2015). Tanzania credit supply market has been dominated by three large domestic commercial banks, namely CRDB, NMB and NBC. These banks supply credits to both urban and rural based market yet majority of those in need of credit services, and especially in rural areas are not reached. Illiteracy, poor infrastructure facilities, deep poverty, difficulties in identification and accessibility of borrower's information are some of the factors leading to high transaction costs when transacting credits with rural based customers.

As a result of high transaction costs associated with commercial banks credit operations in rural areas, most commercial banks concentrate only with some few urban based customers they consider credit worth. Thus most commercial banks in Tanzania are considered inefficient in transaction costs terms due to their in ability to scale up their credit operations to rural areas where majority of those in need of financial services live. Only banks with ability to absorb high transaction costs, i.e.CRDB, NBC and NMB have penetrated rural based market. With reference to transaction cost economics theory, when parties to a transaction formulate alternative modes of governance structures, with ability to absorb high transaction costs, such parties will transact at mutual gain and reap benefits despite high transaction costs are considered efficient.

2.5 Conceptual Framework

The framework described in Figure 2.1 indicates significant relationship that exists between transaction costs and choice of an efficient CGS. The amount of transaction costs, mostly depends on the circumstances under which commercial banks want to offer credits (TCDs). Such circumstances include but not limited to borrowers distance, borrowers reputation, borrowing frequency, loan amount, repayment rate, trust, decision lag, collateral and market value of collateral. In this framework, transaction cost is independent variable used to predict choice of an efficient CGS, thus CGS is dependent variable predicted by transaction costs.Even though transaction costs is a significant independent variable for determining choice of an efficient CGS, but also there are other minor predictors for an appropriate choice of CGS, such factors includes type of business activity, size and structure of business capital, nature of business market and business management style. The focus of this study is on how transaction costs influence choice of an efficient CGS of commercial banks in Tanzania.

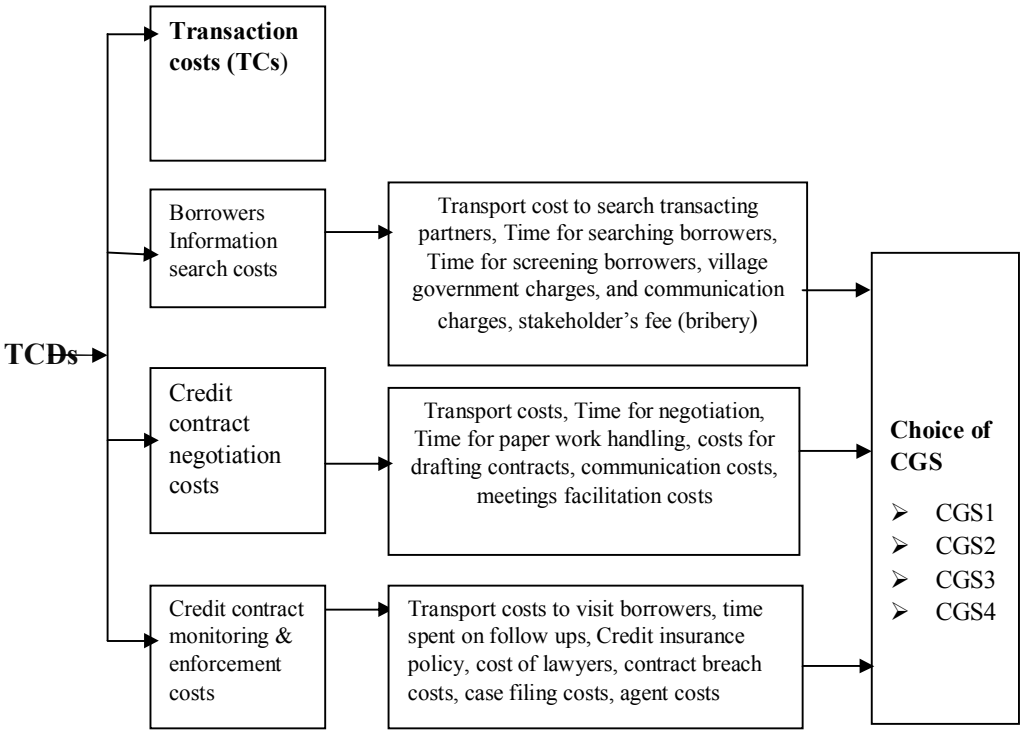

Figure 2.1: Relationship of Transaction Costs and CGSs
Source: Researcher (2015)

Whereby;

CGS1 is a direct channel for credit supply to borrowers

CGS2 is indirect channel for credit supply through profit intermediary banks

CGS3 is indirect channel for credit supply through profit intermediary microfinance institutions

CGS4 is indirect channel for credit supply through non-profit intermediaries

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

Thischapter clearly point out and explain the ideology, methods, techniques and processes used by the researcher to attain research objectives and testing of hypothesis. The researcher adopted positivism philosophy. Quantitative descriptive design and a cross-sectional survey were followed. Structured questionnaires were pre-tested and used to collect primary data from all registered and licensed commercial banks. Non-probabilistic sampling method (purposive sampling) was used. Data were analyzed through descriptive statistics methods, correlation analysis, linear regression and logistic regression methods.

3.2 Research Philosophy

This research to a large extent adopts quantitative paradigm. A paradigm is understood as a way of looking at the social reality or the world that is composed of certain philosophical assumptions that guide and direct thinking and actions (Mertens 1998 in Milliken, 2001). According to (Johnston, 2014) the approach chosen for a research project is influenced by ontological and epistemological assumptions or stances of the researcher. (Morgan and Sklar, 2012) cite that, ontology refers to what is reality while epistemology is concerned with how reality can be known. Within social sciences there has been a long standing debate about the most appropriate philosophical positions between positivism and phenomenology from which research methods should be derived, (Milliken, 2001). Positivists who advocate for natural science, reject subjectivity in research by assuming that an objective world exists

independently of the researcher and that one can uncover universal laws of human nature and social reality, (Patton and Appelbaum, 2003). On the other hand, a phenomenologist's researcher believes that the world and reality are not objective and exterior but that they are socially constructed and given meaning by social actors, (Milliken 2001). Current study advocates positivism ideology. The approach adopted in this study (positivism) aims at utilizing hypotheses to test existing theories for generalization purpose in different settings.

3.3 Research Design

Current study used quantitative descriptive design. The study utilized quantitative and statistical aspect of data organization, presentation and analysis through figures, numbers and tables.It useddeductive reasoning, where the researcher forms an hypothesis, collects data in an investigation of the problem, and then used the data from the investigation, after analysis is made and conclusions are shared, to prove the hypotheses true or false. Also aimed at clearly describing identified variables of study and their relationship. A survey strategy was opted for the above design.

3.4 Area of the Study

The study was carried out in Dar es Salaam and Zanzibar. A sample of 204 credit officers from all commercial banks that provide credit services to micro, small and medium enterprises and farmers with headquarters in Dar es Salaam,were involved in the study and one commercial bank (people's bank of Zanzibar) with headquarters in Zanzibar was also included in the study. Current study was not extended to other regions since the amount and quality of data captured in Dar es Salaam and Zanzibar was considered to be satisfactory.

3.5 Data Collection Methods

This study employed different methods of data collection, whereby both primary and secondary data were collected. Structured questionnaires for survey were administered to commercial banks credit officers to collect primary data. A questionnaire is a set of systematically structured questions used by a researcher to get needed information from respondents. Questionnaires have been termed differently, including surveys, schedules, indexes/indicators, profiles, studies, opinionnaires, checklists, scales, inventories, forms, inter alia. They are written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers, (Brown, 2001).

The questionnaire may be self-administered, posted or presented in an interview format. A questionnaire may include check lists, attitude scales, projective techniques, rating scales and a variety of other research methods. As an important research instrument and a tool for data collection, a questionnaire has its main function as measurement, Oppenheim (1992). It is the main data collection method in surveys and yield to quantitative data, (Dornyei, 2007). The study also used secondary data. The main sources were documentary review of various official documents and reports (i.e. BOT reports) relevant to the research problem from commercial banks and different libraries.

3.6 Population and Sampling

The targeted population was from all commercial banks with headquarters in Dar es Salaam and Zanzibar, where the targeted sampling unit was commercial bank's

credit officers. Due to inability to determine sampling frame since the population (all employees from commercial banks with knowledge and experience in administration and control of credit distribution) was not reliably known, a non-probabilistic sampling method was followed; a purposive sampling technique was used.

Only respondents with credit administration knowledge and working under credit /loan department of commercial banks were included in the sample of 204 respondents. G power software was used in calculating the sample size since the population was not known with reliability. Input parameter in G power were, α err prob= 0.05, power (1-β err prob) = 0.8, odd ratio = 0.6, two tail test, normal distribution and the output result for the sample size is 204.

3.7 Pre-Testing of Questionnaire

Pre-testing was conducted in circumstances that were as similar as possible to actual data collection and on population members as similar as possible to those sampled. Prior to actual commercial banks survey, pre-testing the questionnaire was conducted using a total of 20 credit officers from 3 different commercial banks, which was almost 10% of the total sample size.Sudman (1983), prominent methodologist made similar judgement, he suggested 20-50 cases to be sufficient in discovering major errors in a questionnaire. The selected credit officers were very cooperative, filled well the questionnaires and provided sufficient information. There were no flaws in the questionnaires and thus, they were ready for actual data collection.

3.8 Data Analysis

3.8.1 Descriptive Statistics

Primary data were analyzedquantitatively. The first specific objective was analyzed through descriptive statistics and correlation analysis method. Figures, numbersand frequency distribution tables were used in the process of identifying and describing different CGSs that might be used by commercial banks. Correlation analysis was used to establish relationship of CGSs and also elements of each TC category. Some parameter values were expressed in percentages to facilitate comparison. This was done with aid of SPSS software, version 16.0.

3.8.2 Multiple Linear Regression Analysis

In the theory of multiple linear regression, there are P explanatory variables and the relationship between the dependent variable and explanatory variables is represented by the following equation;

$Y_i = \beta_o+\beta_1X_{1i}+\beta_2X_{2i}+\ldots+\beta_pX_{pi}+e_i$ 1

Predication equation will be;

$Y_i = \beta_o+\beta_1X_{1i}+\beta_2X_{2i}+\ldots+\beta_pX_{pi}$……..……2

When $e_{i=0}$

β_0 is the constant term and β_1 to β_p are the coefficients relating the p explanatory variables of interest. So multiple linear regression can be thought of an extension of simple linear regression. Examples of cases where multiple linear regression may be used, include; trying to predict an individual income given several socio-economic characteristics or trying to predict the overall examination performance of pupils in A level given values of a set of exam scores etc, as suggested by Bryman and Cramer

(1990). The most critical assumption of multiple linear regression analysis that has been tested whenever the model was used in the current study was multicollinearity.

First and second hypotheses for this study, were constructed from first and second specific objectives respectively. Correlation analysis technique was used to test the first hypothesis. Linear regression analysis was used to analyze the second specific objective and test the second hypothesis. Cost elements for each category of transaction costs were used as predictors (independent variables) against total transaction cost as dependent variable. Thus influence of each transaction costs category on total transaction cost was assessed. Multiple linear regression analysis was used to identify the relationship between dependent variable (total transaction costs) and a combination of independent variables (costs elements for each transaction costs category). The following general equation of multiple linear regressions was utilized for this study;

$$TTC = \beta_0 + \beta_1 TSC_i + \beta_2 TNC_i + \beta_3 TEC_i + \varepsilon_i \quad \ldots\ldots 3$$

Where ε_i usually equated to zero and hence predication equation was;

$$TTC = \beta_0 + \beta_1 TSC_i + \beta_2 TNC_i + \beta_3 TEC_i \quad \ldots\ldots 4$$

Where;

TTC= Total Transaction costs (Tsh)

TSC=Information search costs (Tsh)

TNC=Credit contracts negotiation costs (Tsh)

TEC=Credit contracts enforcement costs (Tsh)

$\beta_{1\text{-}3} > 0$

3.8.3 Logistic Regression Analysis

Given a sample of (X, Y) pairs in logistic regression, the X's can be numerical or categorical, but Y's are generally coded as 0 (for those which do not have the event) or 1 (for those which have the event). According to Bryman and Cramer (1990), the logistic model is based on a linear relationship between the natural logarithm (ln) of the odds of an event and a numerical independent variable. The form of this relationship is as follows:

$L = \text{In } (P/1\text{-}P) = \beta_0 + \beta_1 x + \varepsilon_i$ ……..…….5

Where Y is binary and represent the event of interest (response), coded as 0/1 for failure/success,

P is the proportion of successes,

0 is the odds of the event,

L is the ln (odds of event),

X is the independent variable,

0 and 1 are the Y-intercept and the slope, respectively, and

$\varepsilon_i$is the random error.

Computations of the estimates of $\beta_0 and \beta_1$ in logistic regression are far more complicated, P is the probability of the event, and then the odds of the event are:

Odds = 0 = P/ 1-P……6

We defined L = ln(odds of event Y), sometimes called the "log odds" or logit of Y. We can write L in terms of P, Probability (Y=1), as follows:

L= In (0) = In (P/1-P) ……..…….7

The logistic regression model may be written in terms of P, the risk of event Y, assuming that L is a linear function of X as follows:

$P = e^{\beta 0 + \beta 1x + e} / 1 + e^{\beta 0 + \beta 1x + e}$ ……8

Current study used logistic regression method for analysis of third specific objective and testing of hypothesis (c) and (d) of this study. Where transaction costs were predictors while CGSs were dependent variables (dichotomous). This tool assessed the likelihood of commercial banks choosing a particular CGS and not others given Transaction Costs. Every CGS (1-4) were equated as a function of transaction costs.

This means each TC category was tested against each CGS to determine the likelihood of choosing or not a particular CGS. Thus for each TC tested across four CGS (CGS1-4), the most cost efficient governance structure was revealed and recommended for scaling up. Variables of transaction costs determinants that were used in this study includes but not limited to borrowers distance, expected borrowing frequency(loyalty), customer reputation, loan amount, trust, collateral market value. The mathematical representation of the above:

$TC - F(TCD)$ …… **9**

Whereby; $TC = (TSC + TNC + TEC)$ …… **10**

And

$CGS(1-4) = f(TSC, TNC, TEC)$ …… **11**

TSC includes but not limited to transport, meetings, village authority fee, reputation, personal relationship, time spent in searching and screening borrower. T**NC** includes but not limited to cost of lawyers, allowances for meetings, paperwork, personal relationships, transport costs, levies, opportunity cost of time spent in negotiation,

reputation and T**EC** cost includes but not limited to penalties, enforcement campaigns, police and court case costs, time for making follow ups, cost of lawyers, reputation. Binomial logistic regression gave binary outcome. For example 1 meaning success and 0 failure when predicting whether a CGS has been chosen or not based on TSC, TNC, and TEC. The logistic regression model gives the likelihood that, given CGS's TSC, TNC, TEC, that they are chosen (in this example, the higher the probability, the greater the chance for the CGS to be chosen). Again, a number of coefficients were obtained, but this time were used to calculate a LOGIT. As a general formula logit is given by;

$$Logit\ of\ CGS(1-4) = intercept + aTSC + bTNC + cTEC + \varepsilon \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \mathbf{12}$$

Usually, ε is equated to 0 since focus is on *TSC* (search costs), *TNC* (negotiation costs) and *TEC* (enforcement costs) as parameters used to predict the likelihood of choosing a particular CGS. Therefore;

$$logit\ (p) = \log\left(\frac{p}{1-p}\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots..13$$

Thus;

$$p = \frac{1}{1 + e * -(logit)} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.\ldots\ldots\ldots\ldots\ldots 14$$

So the model was fitted and get values for a, b, c and the intercept, logit value was calculated from given data. Thus the probability P was calculated and established chances (likelihood) of choosing a particular CGS.

Multinomial logistic regression was also used to predict choice of an efficient CGS. Where the dependent variable has four different options (CGS1-CGS4) matched against categories of transaction costs, at each time, one option of dependent variable was set as a reference category. Agresti (1990) explainedthat multinomial Logistic

Regression is the linear regression analysis conducted when the dependent variable is nominal with more than two levels. Thus it is an extension of logistic regression, which analyzes dichotomous (binary) dependents. Multinomial logistic regression analysis assumed that, all four credit governance structures (CGS1-CGS4) existed, but at each time analysis was made, one CGS was used as a reference category and determined the CGS more likely to be selected given transaction costs.

3.9 Analysis Models and Assumptions

Current study utilized cross-sectional survey, thus all the data made available for analysis were cross-sectional data. Collections of data were made from different sampling units but at the same period of time. Cross-sectional data do not need statistical control as time series data do. Multiple linear regression of cross-sectional data, normally call for testing of multicollinearity problem, to avoid significant predictors to influence each other and jeopardize results. Current study applied correlation matrix method for multicollinearity test, when multiple linear regression model was used.

Current study applied logistic regression methods for analysis, binary logistic and multinomial logistic. These methods uses maximum likelihood estimator which provides consistency approach to parameter estimation problems. Maximum likelihood estimates can be developed for a large variety of estimation situations. For example, they can be applied in reliability analysis to censored data under various censoring models. Normally maximum likelihood estimator is not affected by data quality to impair results and call for assumption testing.

CHAPTER FOUR

CREDIT GOVERNANCE STRUCTURES AND TRANSACTION COSTS CATEGORIES

4.1 Chapter Overview

With reference to current study specific objectives (a), this chapter identified and described CGSs that might be used by commercial banks to absorb transaction costs. Major categories of transaction costs as well as their cost elements were identified and described.Hypothesis (a) of the current study was tested in this chapter. Through descriptive statistics alternative credit governance structures (CGSs) were compared, related to their associated costs and customer categories they served.

4.2 Alternative Modes of Governance Structure for CBCredit Supply

From the framework described in figure 4.1, there are four different categories of governance structure CGS_1 to CGS_4; these may be used by commercial banks to mitigate TCs and distribute credits in the URT. Each CGS has its own associated level of TC, depending on the choice of a CGS for credit distribution to borrowers. The level of TCinfluence the choice ofCGS for credit supply by commercial bank under different circumstances. Therefore TSC, TNC and TEC, were independent input variables that affects choice of CGS.

Commercial banks in Tanzania offer MSMEs credits, personal loans/credits, corporate credits to companies and agriculture credits. Any credit transaction carried out under each credit governance structure involves transaction costs (search costs, contract negotiation cost and contract enforcement cost) that if over looked may

result in high costs, inefficiency in operations of commercial banks and hence no transaction at all. Current study findings, proved commercial banks failure to identify the most efficient credit governance structure that might assist them expanding their operations to rural areas where majority of people (potential customers) in need of financial services live.

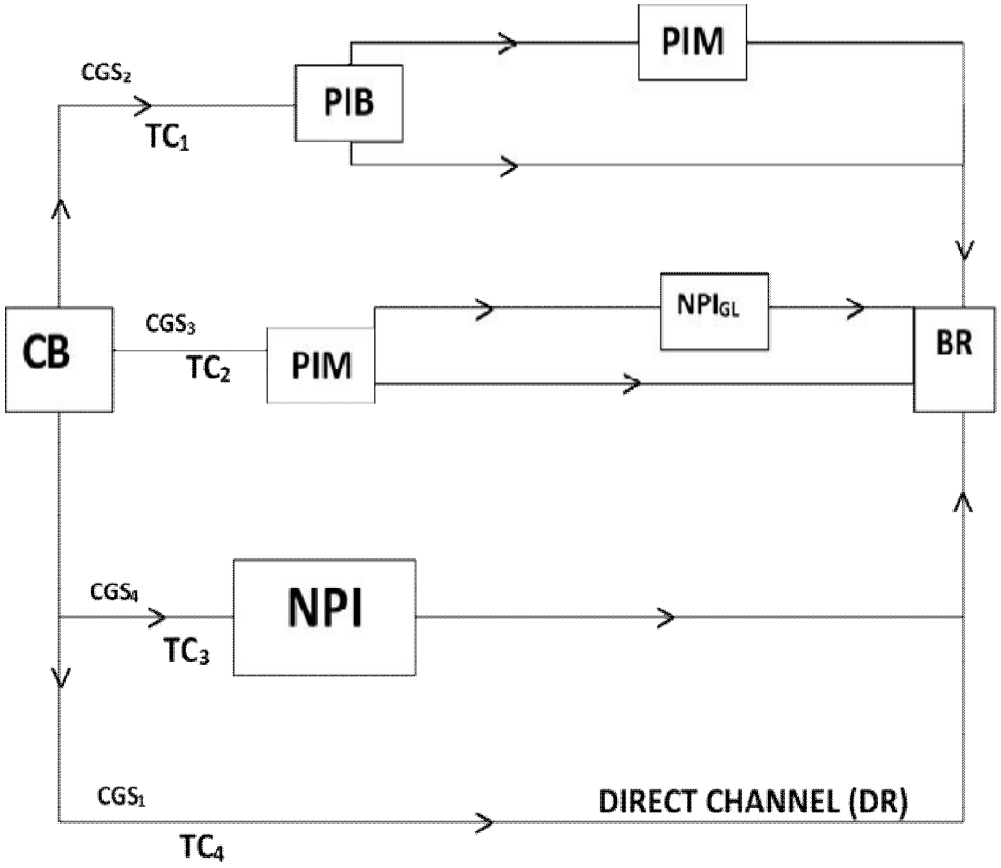

Figure 4.1:Alternative Credit Governance Structures

Source: Researcher (2015)

Whereby:

DR Direct channel (Credits directly from commercial banks to ultimate borrower)

CB stands for commercial bank

BR is ultimate borrower (user of credits)

TC is transaction costs (Tsh)

PIB is profit- Intermediary bank; i.e. Community development banks

PIM is profit Intermediary microfinance Institution i.e. SACCOS

NPI is non-profit intermediary i.e. government institutions that guarantee credits from CB to employees.

CGS stands for credit governance structure.

4.3 Preference of CGSs by Commercial Banks in Tanzania

Table 4.1shows how 204 respondents from 34 commercial banks in Tanzania prefer distributing credits, using various credit governance structures (CGSs). 66.2% of all respondents from commercial banks in Tanzania prefer distributing credits directly to individuals rather than using intermediaries. Only 5.9% preferred using profit making intermediary banks, i.e. community development banks as channel of distributing credits to borrowers. 16.7% of respondents from commercial banks in the country prefer issuing credits to borrowers through profit making microfinance institutions like SACCOS.

The remaining 11.2% mostly prefer servicing credits through non-profit making intermediaries. As findings described in Table 4.1 show, only 33.8% of all respondents from commercial banks in the country can service credits through intermediaries. The rest of commercial bank's respondents believe it's costly and inefficient for them to use intermediaries in supplying credits.

Table 4.1:Preference of CGSs by Respondents from Commercial Banks in Tanzania

CGSs	Frequency	Percentage (%)
CGS1	135	66.2
CGS2	12	5.9
CGS3	34	16.7
CGS4	23	11.2
Total	**204**	**100.0**

Source: Researcher (2015)

From facts given by most respondents from commercial banks in Tanzania, most borrowers portrayed adverse characteristics in relation to borrowing. Poor individual and business reputation, most of those in need of credits were situated in remote areas of the country, thus reaching them was costly. Most borrowers lack credit collateral or guarantor, and those with collateral have low market value and hence discredit their credit worthiness and pose multiple risks of loss to credit suppliers. The amount of credit needed was usually small while borrowing frequency (loyalty) was not assured and therefore the level of trust of commercial banks towards majority borrowers was very low. These findings can be further elaborated in Table 4.2 where average total transaction costs (ATTC) matched with transaction costs determinants.

From study findings, current credit business operating environment force most commercial banks to prefer credit governance structure one (CGS1). Preference of CGS1 supports servicing of credits to urban based customers and not rural based customers since it carries lower transaction costs when used in urban areas. Majority of those in need of credit services are located in rural and not urban areas inTanzania.

Given current credit business operating environment, usage of CGS1 to supply credits to rural based customers, results to high transaction costs that most commercial banks cannot afford to absorb, thus renders them inefficient in terms of transaction costs. For the purpose of credit business scale up, efficiency and credit facility accessibility given the current non conducive credit business operating environment, commercial banks should prefer more indirect channels for credit supply (CGS2-4), rather than CGS1.

Findings from Table 5.10, showed that 97.6% of respondents from all commercial banks in Tanzania prefer dealing with urban based customers as far as credit business is concerned. Arguments behind their decision is inaccessibility of rural areas due to poor infrastructure and other supportive facilities, difficulties in identifying, locating and accessing information of rural based customers and therefore resulted in further difficulties in monitoring and enforcing credit contracts with most rural based customers. Above reasons, highly contributed to massive rise of credit transaction costs that most commercial banks cannot afford to absorb when using CGS1. Since they prefer dealing directly with borrowers, most opted not to provide credit services at all to rural based customers to avoid high transaction costs and thus dealt more with urban based customer.

High preference of urban based customers, supported commercial banks preference of CGS1. Usage of CGS1 by commercial banks on urban based customers assisted them to attain optimality but not efficiency since they minimize transaction costs but failed to scale up their credit operations to rural part of the country where majority of those in serious need of credits live. Given current non conducive credit business

operating environment, high preference of CGS1 by commercial banks limits their ability to expand their credit operations to rural areas, thus renders them inefficient in terms of transaction costs despite the fact that, they economize when dealing with few urban based customer.

Table 4.2: Transaction Cost Determinants Contribution on TTC

Trust	Reputation	Remoteness	Collateral/guarantor	Market value of collateral	Borrowing frequency	Credit amount
TTC Mean	TTC Mean	TTC Mean	TTC Mean	TTC Mean	TTC Mean	TTC Mean
10,380,118.78	12,003,234.05	11,050,578.14	19,227,016.74	31,160,202.74	31,045,826.5	31040781.87

Table 4.2shows findings given by 204 respondents from all commercial banks in the country. According to the findings low trust level of banks on borrowers, poor borrower'sreputation and remoteness of borrowers led to TTC Mean of TSH10,380,118.78,TSH12,003,234.05 and TSH11,050,578.14 respectively. These were not highly contributing factors as compared to availability of credit collateral which led to TTC mean of TSH19,227,016.74 which is almost as twice as the TTC mean of any of the preceding determinants.

Moreover these findings further shows, commercial banks credit transaction costs were not highly affected by trust on borrowers, borrower's reputation or remoteness of borrowers. Factors that highly contributes to rise of commercial banks credit transaction costs in Tanzania includes market value of borrowers collaterals, expected borrowing frequency (loyalty) and the credit amount, their TTC mean isTsh31,160,202.74,Tsh31,045,826.5 and Tsh31,040,781.87 respectively.

These findings suggests, the major reasons for commercial banks concentration in urban areas as far as transaction costs is concerned to be, lack collateral or reputable credit guarantors for rural based customers, those with collateral, their market value is very low, rural based customers borrowing frequency is not assured and also, usually the amount of credit needed by rural based customers is very small. Most of urban based customers, have high market value collateral, they are reputable, loyal since they can easily be identified and located and often borrows large sums of money and therefore, they are highly preferred by most commercial banks in Tanzania.

According to National Bureau of Statistics census report of 2012, 70.4% of Tanzanians live in rural areas, thus majority of those in need of credits are located in rural part of the country, where above features/determinants are adversely dominant. Given these facts, commercial banks concentrate in urban areas when it comes to credit provision. Since it's very costly transacting with borrowers from rural areas due to presence of adverse features that are causing transaction costs to rise rapidly as seen in Table 4.2.

4.4 Comparison of Credit Governance Structures (CGS1-CGS4)

Four different credit governance structures (CGSs) were analyzed in this study. When commercial banks provide credits directly to individual borrower. Commercial banks provide credits to profit making intermediary banks that ultimately deal with individual borrowers. Commercial banks provides credits to profit making intermediary microfinance institutions that eventually deal with individual borrowers

and the fourth CGS is when commercial bank provides credits to non-profit making intermediaries.

The cost of carrying out credit transactions using indirect channels (CGS2-CGS4) is often high due to presence of intermediaries, especially to borrowers. Such costs can be absorbed by intermediaries within the particular CGS and not commercial banks. Therefore commercial banks are better off using indirect channels for credit distribution rather than direct channel.

Table 4.3:Total Transaction Costs for CGS1-CGS4

N	Minimum	Maximum	Mean
204 Total costs for CGS1	1590000	16100000	2392600
204 Total costs for CGS2	1640000	16000000	2662500
204 Total costs for CGS3	1230000	7110000	4436400
204 Total costs for CGS4	1650000	20100000	11313000

Source: Researcher (2015)

Given the descriptive analysis from Table 4.3, transaction costs from four CGSs have been analyzed. Maximum transaction costs from CGS1 isTsh16,100,000, while from CGS2, CGS3 and CGS4 is Tsh 16,000,000, Tsh 7,110,000 and Tsh20,100,000 respectively. The maximum cost for credit governance structure 3 is better-off compared to the rest of the channels, despite that fact commercial banks makes decision of an appropriate channel by comparing average transaction costs. Mean transaction costs for CGS1 isTsh2,392,600 which is lower compared to the rest of the Credit governance structures, where CGS2 is Tsh 2,662,500, CGS3 is Tsh 4,436,400 and CGS4 is Tsh11,313,000.

Therefore most commercial banks prefer CGS1 due the fact that it carries lower transaction costs compared to the rest of CGSs and it gives them direct control of credit supply. These facts are supported by findings from Table 5.10 that showed 97.6% of commercial banks prefer urban based customers for the purpose of lowering TC since they also prefer CGS1 which is not suitable for credit operations with rural based customers due to high transaction costs which they will have to absorb themselves.

Table 4.4:Correlations for Total Costs of CGS1-CGS4

		TCCGS1	TCCGS2	TCCGS3	TCCGS4
TCCGS1	PC	1	.941**	-.532**	-.475**
	Sig.		.000	.000	.000
	N	204	204	204	204
TCCGS2	PC	.941**	1	-.315**	-.248**
	Sig.	.000		.000	.000
	N	204	204	204	204
TCCGS3	PC	-.532**	-.315**	1	.991**
	Sig.	.000	.000		.000
	N	204	204	204	204
TCCGS4	PC	-.475**	-.248**	.991**	1
	Sig.	.000	.000	.000	
	N	204	204	204	204

**. Correlation is significant at the 0.000 level (2-tailed).

Findings in Table 4.4 reveals further relationship that exists among credit governance structures. Total cost for credit governance structure one(TCCGS1) and total cost for credit governance structure two(TCCGS2) are strongly positively correlated (direct related) at r=0.941. When preference of CGS1 is high, preference of CGS2 will also be high since they share a strong similar magnitude. TCCGS1 and TCCGS3 are inversely related at r= -0.532, when the cost of CGS1 increases, the cost of CGS3 decreases, therefore CGS3 will be more preferred than CGS1 and vice versa.

TCCGS2 and TCCGS3 both shares strong magnitude with TCCGS1 since the relationship they share with TCCGS1 is strong despite the fact that one is positive and the other one is negative.TCCGS1 and TCCGS4 have weak but negative relationship at r= -0.475. TCCGS2 compared to TCCGS3 and TCCGS4 have weak but negative relationship at r= -0.315 and r= -0.248 respectively. TCCGS3 and TCCGS4 have strong positive relationship at r= 0.991. The findings shows that, there is a direct relationship between CGS1 and CGS2 as well there is a direct relationship between CGS3 and CGS4, by implication commercial banks that preferred CGS1 also preferred CGS2 but not CGS3 or CGS4. And when CGS3 is preferred also CGS4 is preferred but not CGS1 and CGS2. Thus findings are suggesting commercial banks can only use two CGSs at once, using more than two CGSs is too costly for them to handle. Therefore the null hypothesis that, there is no relationship between total costs for CGS1 and CGS2 is rejected. The alternative hypothesis is accepted since they strongly positively related.

4.5 CGSs and their Associated Transaction Costs

In Table 4.5comparison has been made, where each credit governance structure (CGS) has been matched with its associated transaction costs. From the findings, average total transaction costs for each governance structure has been ascertained and compared to determine a CGS that economizes in terms of transaction costs.

Table 4.5:CGSs and Transaction Costs

	CGS1	CGS2	CGS3	CGS4
	Mean	Mean	Mean	Mean
Total transaction costs	15,561,442.77	31,160,506.00	31,043,669.15	31,040,781.87

Source: Researcher (2015)

From Table 4.5 all four CGSs have been compared against their average transaction cost. Results showed, when the comparison is made between the CGSs against associated transaction costs, CGS1 has lower average total transaction costs almost half of the averages of each CGSs. The ATTC for CGS1, CGS2, CGS3, and CGS4 is recorded at Tsh15,561,442.77, Tsh31,160,506.00, Tsh31,043,669.15 and Tsh31,040,781.87 respectively. According to transaction costs theory, when the costs of transacting between two or more parties is too high to be absorbed, it renders such parties inefficient in terms of transaction costs, sometimes it may result to no transaction at all.

Commercial banks in Tanzania prefer dealing with borrowers directly (CGS1) compared to other indirect channels (CGS2-CGS4) of distributing credits for urban based customers. Preference of CGS1 by commercial banks in Tanzania has an adverse effect when it comes to rural based credit customers. Inability of commercial banks to supply credits to most part of the country is the result of preference of CGS1. Commercial banks are too sensitive to costs and risk of losses, thus CGS1 is their most safe way of distributing credits. According to transaction cost theory, they may be economizing transaction costs but in real world, they are inefficient, because they can only provide credit services to some few credit worth customers situated in urban areas.

4.6 Customer Categories and Credit Governance Structures

As evidenced in section 4.3, most commercial banks prefer servicing credits to customers through CGS1 due to low transaction costs involved. In Table 4.1, 66.2%of respondents from commercial banks favor distributing credits using CGS1.

Findings from Table 4.6, proved that majority of commercial banks credit customers were intended to be served using credit governance structure one (CGS1). Such customers include but not limited to registered SMEs, individual persons, informal and micro businesses, large and small scale farmers (sundry customers) and community development banks (only few were actually reached due to high transaction costs associated with CGS1). These were the main credit customers for most commercial banks in Tanzania.

Table 4.6:Credit Governance Structures and Customer Categories

Credit governance structures	Customer categories served	Percentage (%)
CGS1	Sundry customers	44.1
	Community development banks	48.5
	Others	7.4
CGS2	Community development banks	19.6
	Public institutions	76.5
	Non-bank microfinance institutions	2.0
	Other commercial banks	1.5
	Others	0.4
CGS3	Non-bank microfinance institutions	96.6
	Other commercial banks	2.9
	NGOs	0.5
CGS4	NGOs	7.0
	Religious institutions	90.7
	Others	2.3

Source: Researcher (2015)

The above mentioned credit customers covers about 92.6% of all credit customers that were being serviced using CGS1. Despite of CGS1 serving diverse groups of customers, it was only effective where such customers were urban based and not rural based. Since it hinders scale up of credit operations due to high and un-absorbed transaction costs associated with credit distribution to rural areas of Tanzania given current non-conducive credit business operating environment. Majority of those in serious need of credit facility were not reached due to preference of CGS1.

96.1% of all commercial banks credits served through CGS2 were directed to community developments banks and public institutions and 3.9% of the remaining credit proportion was directed to non-bank microfinance institutions, other commercial banks and all other remaining categories of customersthat were not mentioned in Table 4.6. 96.6% ofcredits distributed by commercial banks in Tanzania through CGS3 were mainly directed to non-bank microfinance institutions. In 2001 the national microfinance policy was formulated with an intention of supporting microfinance institutions in the country, in particular non-bank microfinance institutions so as to fasten socio-economic development.

Commercial banks opened a micro financing window for this purpose, but only a few large domestic commercial banks truly support microfinance institutions in the country.Commercial banks give credits to non-profit making intermediaries that ultimately deal with individual borrowers in CGS4. This channel was specifically designed to be used by commercial banks to supply credits to non-profit making organization, such as religious institutions, clubs and other associations that do not make profit. 90.7% of all commercial banks credits serviced through CGS4, were directed to religious organization, 7% to NGOs and the remaining 2.3% to other categories of customers not mentioned.

4.7 Categories of Total Transaction Costs

From transaction cost theory, especially the one stipulated by Williamson (2010) in new institutional economics, transaction costs are divided into three categories (i) Information search costs (ii) Contract negotiation costs (ii) Contract monitoring and enforcement costs. Findings from current study similarly evidenced the same

transaction costs categories, but these costs differ from one another depending on influence of individual transaction costs determinants within each cost category. Some determinants were dominant than others, like cost of time and transport cost in the current study.

Table 4.7:Transaction Costs Categories

N		Minimum	Maximum	Mean	Std. Deviation
204	Total search costs	663000	6880000	3535300	2001980
204	Total negotiation costs	852000	4030000	2894300	931803
204	Total enforcement costs	3320000	45500000	14375000	7931510

Source: Researcher (2015)

From Table 4.7,credit contracts monitoring and enforcement costs was very high, more than twice combination of both costs of searching borrowers information and credit contracts negotiation costs, while TNC was the lowest. This is a clear indication of poor borrowing and repayment behavior of borrowers in Tanzania. Most borrowers do not have tangible reason for borrowing, thus instead of using the money to facilitate growth of income generating activities, the money is being diverted to other uses which resulted to failure of making repayments.

Commercial banks are very sensitive to risks of losses, especially those originating from credit business operations since it is one of the major income generating activities of banks in Tanzania. With that in mind, commercial banks invest heavily in debt collection so as to minimize or completely avoid losses from non-repayments of credits by defaulters. Commercial banks in Tanzania invest more in provision of credit facility to few customers in urban areas, that they consider credit worth, in turn considerable number of such customers became defaulters.

The newly established Credit Reference Bureau (CRB) is not effectively functioning. It still lack so much information of borrowers in the country and therefore difficult to determine whether the customer is credible or not. Thus most commercial banks enter into credit contracts with customers that are neither trust worthy nor reputable and lead to default. Due to that fact, commercial banks spent so much costs to monitor and enforce credit contracts, to make sure non repayment is reduced if possible avoided.

4.7.1 Elements of Total Search Costs

In Table 4.8, five different variables were used to determine the total search transaction costs, distance (transport cost), time, local authority fees, meetings facilitation costs, tips and other related charges. According to the findings, transport cost isTsh1,200,800 which is higher than other determinants, followed by costs of time at Tsh963,430, local authority fees at Tsh545,100, tips and other charges at Tsh535,890and the lowest was meetings facilitation cost at Tsh290,100. The mean cost alone is not satisfactory to conclude that, transport cost is the best predictor for total search cost, therefore correlation analysis was opted.

Table 4.8:Elements of Total Search Costs

N		Mean	Std. Deviation
204	Total Transport costs.	1200800	865053
204	Total costs of time	963430	669766
204	Total local authority fees	545100	471847
204	Total meetings facilitation costs	290100	670730
204	Tips and other charges	535890	104976

Source: Researcher (2015)

Underdevelopment of infrastructure in the country is one of the major reason for high transport costs during borrower's information search by commercial banks. Also poor planning of town and cities, made difficult for commercial banks to reach most customers and thus raise costs. Currently there is no automated systems for identification and searching of potential borrowers information, for example, the National identification system which will be linked to several other automated systems of health, tax authorities, banks, insurance and pension funds, voting systems as few examples.

Therefore commercial banks search most of its credit customers manually, which is very costly. As a result, so much time is spent in the process of searching borrower's information so as to be assured of their credibility to avoid risks of default.If the government would embark its efforts on improving infrastructure facilities, properly design and plan its town and cities, effectively automate its National Identification System and linked it with other systems, would results in minimization of costs for searching borrower's information and other related transaction costs currently incurred by commercial banks in credit operations.

From the correlation matrix of predictors for total search costs, the correlation coefficient (r) between time costs and transport costs is 0.791, which support strong positive relationship between variables, that is, if transport cost increases during searching of borrower's information, the cost of time will also rise for almost similar magnitude and vice versa. Transport costs and local authority fees share a strong positive relationship at r=0.985, if one variable increases or decreases, the other one

will respond in a similar way. Cost of time during borrowers information search and local authority fees have strong positive relationship at r=0.766.

Table 4.9:Correlation Matrix for Elements of Total Search Cost

		Total transport cost.	Total costs of time	Total local authority fees	Total meetings facilitation costs	Total tips and other charges
Total transport cost.	PC	1	.791**	.985**	.252**	.738**
	Sig.		.000	.000	.000	.000
	N	204	204	204	204	204
Total costs of time	PC	.791**	1	.766**	.347**	.593**
	Sig.	.000		.000	.000	.000
	N	204	204	204	204	204
Total local authority fees	PC	.985**	.766**	1	.219**	.761**
	Sig.	.000	.000		.002	.000
	N	204	204	204	204	204
Total meetings facilitation costs	PC	.252**	.347**	.219**	1	.126
	Sig.	.000	.000	.002		.073
	N	204	204	204	204	204
Total tips and other charges	PC	.738**	.593**	.761**	.126	1
	Sig.	.000	.000	.000	.073	
	N	204	204	204	204	204

**. Correlation is significant at the 0.000 level (2-tailed).
PC is Pearson correlation

The relationship that exists between cost of time, transport costs and meeting facilitation costs during searching for borrowers information is weak but positive at r=0.347 and r= 0.252 respectively. If transport cost or cost of time increase, cost of meeting facilitation will also increase but the magnitude will be weak. Total tips and other charges have strong positive relationship with transport costs and the costs of time at r=0.738 and 0.593 respectively. As well total tips and other charges have positive strong correlation with local authority fees at r= 0.766 and shares a weak but positive relationship with meetings facilitation costs at r=0.126, influence of individual variable is weak.

To avoid problem of multicollinearity, only one variable was selected among variables with strong relationship with each other, the rest were omitted, for this case time variable was selected since it has been reflected in the current study hypothesis. Time variable has strong correlation with, transport costs, local authority fees and Tips variables and thus were omitted from the analysis. Only time and meetings facilitation variables were taken as predictors so as to give credible and reliable results since their relationship is weak at r= 0.347.

Table 4.10:Actual Predictors for Total Information Search Costs

		Total costs of time	Total meetings facilitation cost	Total search costs
Total costs of time	PC	1	.347**	.899**
	Sig.		.000	.000
	N	204	204	204
Total meetings facilitation cost	PC	.347**	1	.317**
	Sig	.000		.000
	N	204	204	204
Total search costs	Pearson Correlation	.899**	.317**	1
	Sig. (2-tailed)	.000	.000	
	N	204	204	204

**. Correlation is significant at the 0.01 level (2-tailed).

PC is Pearson correlation

From the findings in Table 4.10, the correlation between time variable and total search costs is strong positive relationship at r= 0.899, time cost during information search positively influence total information search costs, thus any change to time cost variable leads to almost similar change to total search costs in similar direction. Correlation between meetings facilitation cost variable and total search costs is weak but positive correlation at r=0.317. Meetings facilitation costs have weak influence on changes of total information search costs.

If all variables (tips and other charges, local authority fees, transport costs) and time were used to gather the credibility and reliability of results could have been tempered with. Time costs variable is of interest to this study, it has been reflected to the study hypotheses and that's why it was taken for further analysis instead of transport costs, tips or local authority fees variable, these variables have almost similar magnitude as time cost variable, if any one was used could have ended up with almost similar results as time cost variable did.

4.7.2 Elements of Total Negotiation Costs

Findings in Table 4.11, descriptive analysis shows the mean cost for time variable to be higher compared to the rest of variables at Tsh 1,174,500, while that of meetings facilitation costs, tips and lawyer fees to be Tsh 293,170, Tsh798,560 and Tsh628,090 respectively. Thus from the data, time cost variable influences more total negotiation costs compared to the rest of variables.

Table 4.11:Elements of Total Negotiation Costs

N		Mean	Std. Deviation
204	Total costs of time	1174500	597525
204	Total meeting facilitation costs	293170	83088
204	Total tips and other charges	798560	315993
204	Total lawyer fees	628090	247120

Source: Researcher (2015)

In correlation matrix, given by Table 4.12, all four predictors were compared, the correlation coefficient between time cost variable and meeting facilitation costs is weak but positive at r=0.382, they both qualify for the next stage of analysis since their correlation is not strong. The correlation of time cost variable and total tips and other charge is strong but positive at r= 0.485 which is equivalent to r= 0.5, since the

relationship is strong, each variable can influence the other, thus one variable has to be removed to avoid impairment of results through multicollinearity problem, for this case, the variable to be removed is tips and other charges since time variable is of interest to the current study.

The relationship between time cost variable and lawyer fees was also established, they have weak relationship but positive at r=0.167, thus moved to next stage of analysis. Meetings facilitation costs and tips and other charges have weak but positive relationship at r=0.405, despite the fact that tips and other charges has already been removed from next stage analysis. Meetings facilitation costs and lawyer fees have positive but weak relationship at r=0.154, they have both been used in next stage of analysis.Three predictors (time cost, meetings facilitation costs and lawyer fees) were involved in the next stage analysis with total credit negotiation costs as dependent variable.

Table 4.12: Correlation Matrix for Elements of Total Negotiation Costs

		Costs of time	Meeting facilitation costs	Tips&other charges	Lawyer fees
Costs of time	PC	1	.382**	.485**	.167*
	Sig.		.000	.000	.017
	N	204	204	204	204
Meeting facilitation costs	PC	.382**	1	.405**	.154*
	Sig.	.000		.000	.028
	N	204	204	204	204
Tips and other charges	PC	.485**	.405**	1	.290**
	Sig.	.000	.000		.000
	N	204	204	204	204
Lawyer fees	PC	.167*	.154*	.290**	1
	Sig.	.017	.028	.000	
	N	204	204	204	204

**. Correlation is significant at the 0.000 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

PC is Pearson correlation

From Table 4.13, the correlation between time cost variable and total negotiation costs as dependent variable is strong positive at r=0.884. The influence of time costs variable on total negotiation costs is very significant, where any change in time cost variable will significantly change total negotiation costs in similar direction. Total meetings facilitation costs variable has a strong positive correlation with total negotiation costs at r=0.512, thus it strongly influence changes in total negotiation costs despite the fact that its magnitude is not high as time cost variable. Total lawyer fees also positively and significantly influence the total credit negotiation costs where the coefficient r=0.484 which is approximately to r=0.5. Therefore both three predictors, time costs, meetings facilitation costs and lawyer fees strongly, positively and significantly influences the total credit negotiation costs.

Table 4.13:Actual Predictors of Total Negotiation Costs

		Total costs of time	Total meeting facilitation costs	Total lawyer fees	Total negotiation costs
Total costs of time	PC	1	.382**	.167*	.884**
	Sig.		.000	.017	.000
	N	204	204	204	204
Total meeting facilitation costs	PC	.382**	1	.154*	.512**
	Sig.	.000		.028	.000
	N	204	204	204	204
Total lawyer fees	PC	.167*	.154*	1	.484**
	Sig.	.017	.028		.000
	N	204	204	204	204
Total negotiation costs	PC	.884**	.512**	.484**	1
	Sig.	.000	.000	.000	
	N	204	204	204	204

**. Correlation is significant at the 0.000 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

PC is Pearson correlation

4.7.3 Elements of Total Enforcement Costs

From the findings in Table 4.14, total enforcement costs is higher compared to total information search costs or total credit contracts negotiation costs. In total monitoring and enforcement costs, there are many variables that accumulate costs than the other two costs categories. Only three variables, credit contract breach costs, Case filing costs and third party costs, their total average costs isTsh 1,750,500, Tsh 4,270,200, Tsh 7,133,800 respectively. These averages summations equal to Tsh 13,154,500 which is more than total of transaction costs averages of all determinants for total information search costs and total credit contacts negotiation costs. Commercial banks invest heavily on monitoring and enforcement of credit contracts to avoid risk of default and non-repayments, as a results of making wrong decisions when it comes to choice of an appropriate CGS for credit distribution.

Table 4.14:Elements of Total Enforcement Costs

N		Mean	Std. Deviation
204	Transport costs	588170	315599
204	Cost of time	131170	100230
204	Food& refreshment costs	167060	269069
204	Business viability costs	334210	137759
204	Contracts breach costs	1750500	647357
204	Case filing costs	4270200	3758550
204	Third party costs	7133800	3207970

Source: Researcher (2015)

Furthermore, the findings in Table 4.14 shows that, total thirdparty costs (the costs incurred by banks to hire third partiesto monitor and enforce credits contracts on their behalf) wasTsh 7,133,800, which is higher than any other determinant of monitoring and enforcement costs. These are the consequences faced by

commercialbanks for their preference of CGS1. Findings from Table 4.1 showed that 66.2% of all commercial banks prefer distributing credits through CGS1, thus dealing directly with individual borrowers, as a result tend to multiply monitoring and enforcement costs. If CGS2, CGS3, CGS4 were opted, such costs would have been shifted to intermediaries. Commercial banks are very sensitive to risks, in order for them to manage higher risks of default and non-repayment of credits, they incur costs to hire third parties which could have otherwise been avoided if indirect channels for supplying credits were used.

Table 4.15:Relationship of Predictors for Total Enforcement Costs

		Transport costs	Cost of time	Food& refreshment costs	business viability	Contracts breach	Case filing costs	Total third party costs
Transport costs	PC	1	.694**	.514**	.865**	.735**	.726**	.703**
	Sig.		.000	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204
Cost of time	PC	.694**	1	.487**	.585**	.895**	.878**	.873**
	Sig.	.000		.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204
Food& refreshment costs	PC	.514**	.487**	1	.446**	.511**	.438**	.517**
	Sig.	.000	.000		.000	.000	.000	.000
	N	204	204	204	204	204	204	204
business viability	PC	.865**	.585**	.446**	1	.584**	.601**	.585**
	Sig.	.000	.000	.000		.000	.000	.000
	N	204	204	204	204	204	204	204
Contracts breach	PC	.735**	.895**	.511**	.584**	1	.886**	.879**
	Sig.	.000	.000	.000	.000		.000	.000
	N	204	204	204	204	204	204	204
Case filing costs	PC	.726**	.878**	.438**	.601**	.886**	1	.979**
	Sig.	.000	.000	.000	.000	.000		.000
	N	204	204	204	204	204	204	204
Total third party costs	PC	.703**	.873**	.517**	.585**	.879**	.979**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	204	204	204	204	204	204	204

**. Correlation is significant at the 0.01 level (2-tailed).
PC is Pearson correlation

From Table 4.15, the relationship that exists between transport costs variable and cost of time variable is strong positive at r=0.694, both variables cannot be taken for further analysis, thus cost of time is selected since it is of more interest to the study. Cost of time and food& refreshments cost variables have a weak but positive relationship at r=0.484, they are both accepted for further analysis. The relationship between cost of time and business viability variable is strong positive correlation at r= 0.585, thus business viability costs variable is left out in the next stage analysis to avoid impairment of results.

Not only that but also all the remaining variable, cost of breaching credit contracts, case filing costs and third party costs variables have strong positive correlation with the cost of time variable at r= 0.895, r= 0.878, r=0.873 respectively. Therefore they were all omitted from the next stage analysis.Only two variables were taken for further analysis since they have weak relationship, that is costs of time and food and refreshment costs, their r coefficient was 0.4. The rest of variables, their coefficient of correlation was greater than 0.5 which approaches to 1.

Table 4.16:Actual Predictors of Total Enforcement Costs

		Cost of time	Refreshment costs	Enforcement costs
Cost of time	PC	1	.487**	.895**
	Sig.		.000	.000
	N	204	204	204
Refreshment costs	PC	.487**	1	.496**
	Sig.	.000		.000
	N	204	204	204
Enforcement costs	PC	.895**	.496**	1
	Sig.	.000	.000	
	N	204	204	204

**. Correlation is significant at the 0.01 level (2-tailed).
PC is Pearson correlation

The findings in Table 4.16evidenced strong and positive relationship between time variable and total enforcement costs at r= 0.895. Cost of time variable have high influence to total enforcement and monitoring costs,any increase or decrease in time variable will lead to increase or decrease in total enforcement costs of almost similar magnitude.A number of variables like credit contract breaching costs, business viability measuring costs, case filing costs and thirdparty costs were left out from this analysis.

Intention was to attain credibility and reliability of the results. Time cost variable was taken for further analysis since it has been reflected in the current study hypotheses and thus it is of interest in this study. If any of the above variable was used, could yield into similar results as time costs variable. The relationship of food and refreshment costs variable with the total enforcement is weak but positive at r=0.496, thus it also positively influence total enforcement costs but the magnitude of change is weak.

CHAPTER FIVE

TRANSACTION COSTS AND CHOICE OF AN EFFICIENT CREDIT GOVERNANCE STRUCTURE

5.1 Chapter Overview

This chapter critically examined specific objective b and c of the current study. Significant transaction costs determinants associated with CGSs of commercial banks were identified and analyzed. Effects of transaction costs on choice of an efficient CGS for scale up of commercial banks credit operations were also assessed. Current study hypothesis (b), (c) and (d) were tested. Multiple linear regression model, both binary and multinomial logistic regression were used. Transaction costs as predictor was used to establish a choice of preference between direct and indirect channels for credit distribution and to establish a choice of urban or rural based credit customers by commercial banks.

5.2 CausalityEffect on Total Transaction Costs (TTC) and Choice of an Efficient CGS

In Table 5.1, variables used as determinants for total transaction costs in the current study were matched to test their relationship strength. Only those with weak relation were taken for further analysis, the rest were ignored to avoid jeopardize credibility and reliability of results. From table 5.1, there is a strong positive relationship between time variable of transaction cost and the rest of variables, such as transport costs, local authority fees, food and refreshment costs, costs for measuring borrower's business viability, costs for breaching credit contracts, case filing costs, third party costsas well as tips and other charges.

Therefore, since they are strongly related and share similar magnitude, only one variable is taken to represent other variables, and for this case, time variable.Therefore, time variable and other variables that, have weaker relationship with, meeting facilitation costs, and lawyer fees in credit negotiation, were used in regression analysis below. The relationship between time cost and lawyer fees in contract negotiation is positive but weak at r= 0.249. When time variable increases, lawyer fees will also increase at a very low rate. There is also a positive relationship but weak at r= 0.491 between time variable and meeting facilitation costs, therefore lawyer fees and meeting facilitation costs variables do not have high influence on time costs variable. And the relationship between meeting facilitation costs and lawyer fees during credit negotiation is very weak but positive at r= 0.149.

Table 5.1:Correlation Matrix for Determinants of Total Transaction Costs

		Transport costs	Cost of time	Local authority fees	Lawyer fees	Food& refreshment costs	business viability	Contracts breaching cost	Case filing costs	Third party costs	Meeting facilitation cost	Tips and other charges
Transport costs	PC	1	.898**	.961**	.352**	.494**	.739**	.883**	.879**	.856**	.406**	.792**
	Sig.		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Cost of time	PC	.898**	1	.799**	.249**	.575**	.771**	.779**	.771**	.782**	.491**	.656**
	Sig.	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Local authority fees	PC	.961**	.799**	1	.337**	.467**	.603**	.894**	.882**	.872**	.259**	.795**
	Sig.	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Lawyer fees	PC	.352**	.249**	.337**	1	.282**	.278**	.419**	.394**	.404**	.149*	.314**
	Sig.	.000	.000	.000		.000	.000	.000	.000	.000	.034	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Food& refreshment costs	PC	.494**	.575**	.467**	.282**	1	.446**	.511**	.438**	.517**	.219**	.151*
	Sig.	.000	.000	.000	.000		.000	.000	.000	.000	.002	.031
	N	204	204	204	204	204	204	204	204	204	204	204

Table 5.1:Correlation Matrix for Determinants of Total Transaction Costs

business viability	PC	.739**	.771**	.603**	.278**	.446**	1	.584**	.601**	.585**	.439**	.486**
	Sig.	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Contracts breaching cost	PC	.883**	.779**	.894**	.419**	.511**	.584**	1	.886**	.879**	.292**	.766**
	Sig	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Case filing costs	PC	.879**	.771**	.882**	.394**	.438**	.601**	.886**	1	.979**	.248**	.764**
	Sig.	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Third party costs	PC	.856**	.782**	.872**	.404**	.517**	.585**	.879**	.979**	1	.208**	.693**
	Sig.	.000	.000	.000	.000	.000	.000	.000	.000		.003	.000
	N	204	204	204	204	204	204	204	204	204	204	204
Meeting facilitation costs	PC	.406**	.491**	.259**	.149*	.219**	.439**	.292**	.248**	.208**	1	.330**
	Sig.	.000	.000	.000	.034	.002	.000	.000	.000	.003		.000
	N	204	204	204	204	204	204	204	204	204	204	204
Tips&other charges	PC	.792**	.656**	.795**	.314**	.151*	.486**	.766**	.764**	.693**	.330**	1
	Sig.	.000	.000	.000	.000	.031	.000	.000	.000	.000	.000	
	N	204	204	204	204	204	204	204	204	204	204	204

**. Correlation is significant at the 0.000 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

PC=Pearson Correlation

Further findings shows transport costs and cost of time variables have strong positive correlation at r=0.898, these variables highly influence each other. Only cost of time was included for further analysis. Cost of time and local authority fees shares a strong positive correlation at r=0.799, thus local authority fees was not included in the next stage of analysis. Lawyer fees variable and cost of time variable have positive but weak relationship at r=0.249, they both qualify for further analysis.

Several other variables, include food and refreshment variable, business viability, contracts breaching costs, case filing costs, third party costs, tips and other charges have strong positive correlation with cost of time variable at r=0.575, r=0.771, r=0.779, r=0.771 r=0.782, r=0.656 respectively.

Such variables were highly influencing each other and share similar magnitude, only time cost variable was taken to represent other variables and avoid possibilities of jeopardizing the results. Meetings facilitation costs and cost of time have positive but weak relationship at r=0.491 and were both included in the next stage analysis. Three variables (time, meeting facilitation costs, and lawyer fees in credit negotiation) with weak correlation were taken for further analysis to determine their causality effect on total transaction costs.

Table 5.2: Actual Predictors of Total Transaction Costs

		TTC	Cost of time	Lawyer fees	Meetings costs
PC	TTC	1.000	.859	.413	.318
	Cost of time	.859	1.000	.249	.491
	Lawyer fees	.413	.249	1.000	.149
	Meeting costs	.318	.491	.149	1.000
Sig. (1-tailed)	TTC	.	.000	.000	.000
	Cost of time	.000	.	.000	.000
	Lawyer fees	.000	.000	.	.017
	Meetings costs	.000	.000	.017	.

Source: Researcher (2015)

From Table 5.2, correlation is significant at the 0.01 level (1-tailed test). The findings showed strong positive correlation between time variable and total transaction costs (dependent variable) at r= 0.859. Several variables were left out from this analysis due to the fact that, they had strong correlation with time cost variable and thus using them all togather could have reduced credibility of results.

Time costs variable was used, but if any among those variables was used, could have yield almost similar results as time costs variable. While the two other explanatory variables, lawyer fees and meetings facilitation costs portrayed weaker but positive relationship with the total transaction costs at r=.0.413 and r=0.318. This was further seen in causality effect in the analysis.

Table 5.3:Multiple Regression Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.892[a]	.795	.792	4809360

a. Predictors: (Constant), Total meeting facilitation costs, Total lawyer fees during credit contract negotiation, Total cost of time

All three predictors, total meetings facilitation costs, lawyer fees and cost of time, were entered in the regression model and they were all accepted by the model and used for computation as in Table 5.3.The regression model summary, showed the degree of variability of response (dependent variable) that is explained by independent variables. Given the sum square of model was divided by sum square of total (SSM/SST), as captured from ANOVA table. Results are seen in Table 5.3, where R Square is given by 0.795 which means the variability of total transaction costs is explained for 79.5 % by cost of time, meetings facilitation costs and lawyer fees.

Table 5.4: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1796000	3	598800	258.883	.000[a]
	Residual	462600	200	2313		
	Total	2259000	203			

a. Predictors: (Constant), Total meeting facilitation costs, Total lawyer fees during credit contract negotiation, Total cost of time

b. Dependent Variable: Total transaction costs

F-test was very significant since the P value was less than 0.001 (p<.001). Generally the model was very significant. Statistically the model predictive power was significant.

Table 5.5: Coefficients of Regression Model for TTC Predictors

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model	B	Std. Error	Beta		
(Constant)	4806000	1636000		2.938	.004
Total cost of time	7.362	.315	.876	23.338	.000
Total lawyer fees	9.232	1.411	.216	6.543	.000
Meetings facilitation costs	-11.150	2.837	-.144	-3.930	.000

From the coefficient Table 5.5, the equation for regression line can be drawn. Change in 1 percentage of total cost of time caused positive change of 0.876 percentage in total transaction costs. While change in 1 percentage of lawyer fees resulted into positive change of 0.216 percentage in total transaction costs. And change in 1 percentage of meetings facilitation costs caused negative change of 0.144 percentage in TTC. The contribution and causal effect of time costs variable is the highest, compared to all other elements of transaction costs. This is due to the fact that, time cost element features in all transaction costs categories. Commercial banks spend time in searching for borrowers, searching borrower's information, screening borrowers, negotiating credit contracts and monitoring borrowers.

The relationship of meetings facilitation costs and total transaction costs from findings in Table 5.2 was weak but positive at r= 0.318, but the new findings in this regression model, meetings facilitation costs inversely relate with TTC, any increase in the variable will lead to decrease in TTC and the magnitude of change of TTC is lower with a change in 1 percentage of meetings costs variables than when time cost

variable or lawyer fees variables changes.Therefore the null hypothesis that, 'Time variable has no relationship with total transaction costs, has been rejected, since it has a strong positive relationship with total transaction costs (TTC).

5.3 Relationship of Transaction Costs Categories

Three main categories of transaction costs were critically discussed in current study. Information search costs, Contracts negotiation costs and Contracts enforcement costs. Levels of these categories of transaction costs is affected by conduciveness nature of credit business operating environment. For example, credit business environment in Tanzania is not conducive, thus levels of these transaction costs categories were expected to be very high. Descriptively these categories appeared in Table 5.6.

Table 5.6:Transaction Costs Categories

N		Mean	Std. Deviation
204	Total search costs	3535300	2001980
204	Total negotiation costs	2894300	931803
204	Total enforcement costs	14375000	7931510

Source: Researcher (2015)

As seen in Table 5.6, mean of total enforcement is more than twice combination of both information search costs and contract negotiation costs, while total negotiation costs is the smallest. Banks are risk sensitive, thus they normally spent a lot to protect themselves against risks of defaults and other hazards, transport costs, time spent, tips and allowances incurred to monitor borrowers. But as well they normally incur costs for filling cases, paying lawyers and local government levies and sometimes they pay third parties to enforce credit contracts. All this caused total enforcement costs to be the highest compared to other categories of transaction costs.

Commercial banks concentrate their efforts on debt collection of few credit customers already secured. They do not bother putting more efforts on searching for more credit customers and securing of more credit deals. As well less costs is incurred on negotiations since they only deal with few known credit customers. Most commercial banks provide credit services to few customers in urban areas. They are afraid of expanding their market share and scale up their credit operations to most parts of the country, especially in rural areas due to high transaction costs that they cannot absorb, which is largely caused by their preference of using CGS1 (direct channel of supplying credits). Despite that fact, the three categories of transaction costs are highly related.

Table 5.7:Correlation of Transaction Costs Categories

		TSC	TNC	TEC
TSC	PC	1	.856**	.899**
	Sig.		.000	.000
	N	204	204	204
TNC	PC	.856**	1	.796**
	Sig.	.000		.000
	N	204	204	204
TEC	PC	.899**	.796**	1
	Sig.	.000	.000	
	N	204	204	204

**.Correlation is significant at the 0.000 level (2 tailed).

All three variables are strongly positively correlated with each other. The coefficient of correlation is r= 0.856 for total search costs and total negotiation costs, r= 0.899 for total search costs and total enforcement costs and r= 0.796 for total negotiation and total enforcement costs. Simple linear regression was then followed to determine the causality effect of each individual predictor on total transaction costs.

Table 5.8:Coefficients of Predictors of Total Transaction Costs

Model		Unstandardized Coefficients		Standardized Coeffic (Beta)	t	Sig.
		B	Std.Error			
1	(Constant)	3272000	508757		6.432	.000
	TSC	4.959	.125	.941	39.579	.000
2	(Constant)	-7011000	1280000		-5.478	.000
	TNC	9.611	.421	.849	22.828	.000
3	(Constant)	1825000	184993.709		9.865	.000
	TEC	1.320	.011	.993	117.110	.000

All three categories of transaction costs (TSC,TNC and TEC) significantly contribute to total transaction costs since their p value<0.05. All three coefficients of transaction costs categories are positive, thus they positively relate total transaction costs. Each transaction costs category share similar magnitude with total transaction costs, in the sense that, when a particular category of transaction increase, total transaction costs will also increase , or when decrease total transaction will also decrease. Transaction costs categories have direct relationship with total transaction costs.

Change in 1 percentage of TSC resulted to change in 0.941 percentage of total transaction costs. While change in 1 percentage of TNC resulted to change in 0.849 percentage of total transaction costs. And change in 1 percentage of TEC resulted to change in 0.993 percentage of total transaction costs. From these findings, all three categories of TCs significantly contributed to total transaction costs, but as founded in previous analysis TEC was the highest category of transaction costs. The causal effect and contribution of TEC on TTC is greater than other categories of transaction costs.

Therefore, total transaction cost is directly affected by enforcement costs, information search costs or negotiation costs. Commercial banks in Tanzania incur very high transaction costs in provision of credit services, yet they reach a very few

groups in need. Majority of Tanzanians especially those who live in rural areas cannot access credit facility from commercial banks (origin of financial services). Therefore, there is a serious need for commercial banks to use alternative modes of credit governance structures (CGSs) to assist them absorb high transaction costs and thus penetrate rural based credit markets.

Current rural based borrowers due to desperation of financial needs borrow from non-reputable financial institutions that are considered as credit sharks at interest rates twice or triple that of commercial banks (some charge up to 72% annually) and they afford to make repayments on time. Commercial banks market interest rate does not exceed 25% annually and thus most preferred than most non-bank and informal financial institutions, still commercial banks do not make considerable efforts to reach majority of those in need of credits, especially those situated in rural part of the country.

Despite the fact, these institutions charges very high interest rates due to high transaction costs they incur, they are considered efficient interms of transaction costs since they make credit services available to majority of those in need in different parts of the country. Most commercial banks are considered inefficient in terms of transaction costs due to their in ability to provide credit services. Due to fear of risks, commercial banks denied an opportunity for Tanzanians to access credit facilities on one part, on the other part, they denied themselves an opportunity to scale up their credit operations to most part of the country while knowing the fact that, the major source of profit in commercial banks is credit operations.

5.4 Transaction Costs and Choice of Credit Governance Structures (CGSs)

With reference to current study specific objective (c), this sectionanalyzed effects of transaction costs on choice of the best credit governance structure model of credit supply by commercial banks. Current study hypothesis (c)was also tested in this section. Each model of CGS used similar predictors (TSC, TNC and TEC) in determining whether selected or not, while assuming other CGSs were not existing.

Table 5.9:Transaction Costs and Choice of Credit Governance Structures

CGS1	Variables	B	S.E.	Wald	Df	Sig.
	TSC	1809400	.000	14.092	1	.000
	TNC	-2228200	.000	7.950	1	.005
	TEC	21225000	.000	9.261	1	.002
	Constant	-2.903	.943	9.475	1	.002
CGS2	Variables	B	S.E.	Wald	Df	Sig.
	TSC	-13474000	.000	.465	1	.495
	TNC	57080000	.000	3.382	1	.066
	TEC	-5679000000	.000	.018	1	.894
	Constant	-.854	.535	2.546	1	.111
CGS3	Variables	B	S.E.	Wald	Df	Sig.
	TSC	-181150	.001	28950	1	.986
	TNC	-225130	.002	10742	1	.992
	TEC	-1841500	.000	24478	1	.988
	Constant	202.027	12150	27655	1	.987
CGS4	Variables	B	S.E.	Wald	Df	Sig.
	TSC	-30662000	.000	1.069	1	.301
	TNC	-21724000	.000	.398	1	.528
	TEC	-18273000	.000	5.800	1	.016
	Constant	3.235	.668	23.431	1	.000

Source: Researcher (2015)

The current study, matched each credit governance structure against total transaction costs (total information search costs, total credit contracts negotiation costs and total credit contracts monitoring and enforcement costs), to determine the likelihood of such particular CGS to be selected given transaction costs. Choice of urban or rural

based credit customers was made, given transaction costs. Binary logistic regression was used for both analysis.

From results in Table 5.9, when TSC and TEC were increasing while TNC was decreasing, influenced the likelihood of commercial banks supplying credits directly to borrowers only without using any other credit governance structure. All predictor's variables (TSC, TNC and TEC) were very significant at 5%. The likelihood of commercial banks supplying credits through profits intermediary banks without using any other channel of credit distribution, was highly influenced by decrease of both TSC and TEC while TNC was increasing. TNC was significant at 7%, the remaining predictor's (TSC and TEC) were not statistically significant.

The likelihood of commercial banks supplying credits through profit making microfinance institutions (CGS3) without using other channels, was influenced by decrease of all predictor's (TSC, TNC and TEC). Despite the fact that all three predictor's were not statistically significant. Decrease in all three predictor's (TSC, TNC and TEC) influenced the likelihood of commercial banks distributing credits through non-profit making intermediaries. TEC was statistically significant at 5%, TSC and TNC were not very significant.

From Table 5.9, if choice of direct channel for credit supply was made, despite the fact that TSC and TEC were rising, commercial banks were able to absorb all the costs. Since all predictor's were very significantly influencing likelihood of credit supply through direct channel. The likelihood of selecting other indirect channels

requires TSC and TEC to be decreasing for commercial banks to absorb. Thus preference of direct channel for credit distribution is linked to 66.2% of respondents who preferred this channel in Table 4.1 but as well as 97.6% of respondents who preferred distributing credits to urban based customers.

Credit operating environment in urban areas is conducive, thus minimizes credit transaction costs. Therefore direct channel is the best for commercial banks credit supply in urban areas since TCs can be well mitigated. Commercial banks credit scale up must involve CGSs with intermediaries, given non-conducive credit business environment in rural areas. Therefore, the alternative hypothesis (c) which states, there is relationship between transaction costs and CGSs, is accepted since as proven in above analysis, choice of any CGS for credit supply by commercial banks, depends on the level and influence of transaction costs.

5.5 TC Determinants of Choice of Urban Credit Customers or Rural Based Credit Customers

From the classification Table 5.10, percentage of respondents from commercial banks that selected cluster of rural based customers for credit supply was 3.8% only compared to 97.6% of that selected urban based credit customers as best cluster for credit supply. This model correctly predicts results by 61.8 %. Commercial banks prefer dealing directly with credit customers and thus the rational and optimal option for them is dealing with urban based customers.

Table 5.10:Choice prediction of Urban vs. Rural Based Credit Customers

		Predicted	
Observed	Rural based credit customers	Urban based credit customers	Percentage Correct
Rural based customers	3	75	3.8
Urban based customers	3	123	97.6
Overall Percentage			61.8

Source: Researcher (2015)

This is due to high transaction costs associated with rural based customers given current credit business operating environment, where the national identification system is not yet in place thus becomes difficult and expensive accessing borrowers information, the newly established CRB is not yet effectively working, infrastructure and other supportive facilities were not conducive especially in rural areas thus made it difficult and costly locating credit customers and even more costly monitoring and enforcing credit contracts once credits given. Thus urban based customers seemed to be the best option for most commercial banks.

Table 5.11:TCs Determinants of Choice of Urban vs. Rural Based Credit Customers

	B	S.E.	Wald	df	Sig.	Exp(B)
TSC	31403100	.000	1.853	1	.173	1.000
TNC	-28725000	.000	.869	1	.351	1.000
TEC	-376930000	.000	.574	1	.449	1.000
Constant	.747	.549	1.852	1	.173	2.110

Source: Researcher (2015)

Commercial banks likelihood of choosing urban based credit customers over rural based credit customers is influenced by an increase in TSC and decrease in both TNC and TEC. Implication of these findings, TSC are lower in urban areas since borrowers can be easily be located due to good infrastructures. Borrower's information can be easily accessed, thus cut down screening costs. Residents in

urban areas are more civilized than rural areas. Thus at all times TSC can be easily absorbed by commercial banks in urban areas. TEC is the highest category of TCs, but it can easily be reduced through direct channel for credit supply in urban areas to gather with TNC. Thus direct channel considered efficient for supplying credits in urban areas by commercial banks.The alternative hypothesis (d) of this study which states that there is relationship between TCs and choice of urban based credit customers, is accepted since TCs influence choice of credit customers as analyzed above.

5.6 Multiple Credit Governance Structures with Reference Category

Multinomial logistic regression, used all four CGSs. In analysis, one credit governance structure at each time was assumed as not existing. Thus best CGS given transaction costs was determined from three CGSs remained. When assuming nonexistence of CGS1, TSC when increasing, TNC and TEC when decreasing influence the likelihood of commercial banks supplying credits through profit intermediary banks (CGS2).

The likelihood of commercial banks supplying credits through profit intermediary microfinance institutions (CGS3) or through non-profit making intermediaries (CGS4) is influenced by increase in TSC while TNC and TEC are all decreasing. Despite TCs having similar effect on choice of CGSs but their significance level differ. TCs were very significant influencing likelihood ofcommercial banks supplying credits through profit intermediary banks (CGS2) where TSC and TEC were all significant at 5% while TNC at 20% significance level.

The likelihood of commercial banks distributing credits directly to borrowers (CGS1), or through profit making microfinance institutions (CGS3) or through non-profit making intermediaries (CGS4) is similarly influenced by the same condition of decrease in TSC and increase in both TNC and TEC. This is when commercial banks channel for credit distribution through profit intermediary banks (CGS2) assumed as non-existing.Significance level of TCs influence on the likelihood of choosing credit supply channel differs among CGSs.

TSC and TEC were 5% significant while TNC was 20% significant when credits were directly distributed to borrowers. When credits distributed through profit making microfinance institutions, TSC was significant at 6%, TNC at 40% and TEC at 5%. When credits were distributed through non-profit intermediaries, TSC was significant at 30%, TNC at 80% and TEC at 70%. Thus TCs significantly influence the likelihood of commercial banks distributing credits directly to borrowers and through profit making microfinance institutions than credit distribution through non-profit making intermediaries

When CGS3 assumed as not existing, and TSC is decreasing while TNC and TEC are increasing, influence the likelihood of commercial banks credits supply directly to borrowers. When TSC is increasing while both TNC and TEC are decreasing, influence the likelihood of Credit supply through profit intermediary banks. Likelihood of choosing channel for credit supply through non-profit making intermediaries is also influenced by increase in TSC and decrease in both TNC and TEC.

Table 5.12:Multinomial Regression Results for Choice of CGSs

	Variables	B	Std. Error	Df	Sig.	Exp(B)	
CGS2	TSC	1373600	.000	1	.026	1.000	
	TNC	-1001500	.000	1	.191	1.000	CGS1 reference category
	TEC	-28226000	.000	1	.016	1.000	
CGS3	TSC	17663000	.000	1	.539	1.000	
	TNC	-28755000	.000	1	.411	1.000	
	TEC	-288830000	.000	1	.638	1.000	
CGS4	TSC	69673000	.000	1	.261	1.000	
	TNC	-68023000	.000	1	.269	1.000	
	TEC	-21231000	.000	1	.122	1.000	

	Variables	B	Std. Error	Df	Sig.	Exp(B)	
CGS1	TSC	-1373600	.000	1	.026	1.000	
	TNC	1001500	.000	1	.191	1.000	
	TEC	28226000	.000	1	.016	1.000	CGS2 reference category
CGS3	TSC	-1196900	.000	1	.056	1.000	
	TNC	71391000	.000	1	.360	1.000	
	TEC	25338000	.000	1	.036	1.000	
CGS4	TSC	-67684000	.000	1	.298	1.000	
	TNC	32123000	.000	1	.705	1.000	
	TEC	699480000	.000	1	.628	1.000	

	Variables	B	Std. Error	Df	Sig.	Exp(B)	
CGS1	TSC	-17663000	.000	1	.539	1.000	
	TNC	28755000	.000	1	.411	1.000	
	TEC	288830000	.000	1	.638	1.000	CGS3 Reference Category
CGS2	TSC	1196900	.000	1	.056	1.000	
	TNC	-71391000	.000	1	.360	1.000	
	TEC	-25338000	.000	1	.036	1.000	
CGS4	TSC	52010000	.000	1	.411	1.000	
	TNC	-39268000	.000	1	.538	1.000	
	TEC	-18343000	.000	1	.191	1.000	

	Variables	B	Std. Error	Df	Sig.	Exp(B)	
CGS1	TSC	-70004000	.000	1	.258	1.000	
	TNC	68298000	.000	1	.267	1.000	
CGS2	TEC	21187000	.000	1	.123	1.000	CGS4 reference category
	TSC	67711000	.000	1	.298	1.000	
	TNC	-32162000	.000	1	.705	1.000	
CGS3	TEC	-699710000	.000	1	.628	1.000	
	TSC	-51541000	.000	1	.415	1.000	
	TNC	38860000	.000	1	.542	1.000	
	TEC	18464000	.000	1	.188	1.000	

Among above three choices of credit supply channels, transaction costs were very significantly influencing the likelihood of credit supply through profit intermediary banks compared to other channels, where TSC was significant at 6%, TNC at 40% and TEC at 5%. When TSC is decreasing while TNC and TEC are increasing, they influence the likelihood of commercial banks distributing credits both directly to borrowers and through profit making microfinance institutions. While increase in TSC and decrease in both TNC and TEC influence the likelihood of credit supply through profit intermediary banks. Effects of transaction costs (TSC, TNC and TEC) on these choices, had no significant influence on the likelihood of choosing them.

According to these findings, for efficient credit operations of commercial banks and scale up of credit operations to both rural and urban areas, multiple credits governance structures must be used. Credit supply through profit intermediary banks was efficient when direct channel for credit supplywas not used. Direct credit supply channel and indirect channel for credit distribution through profit making microfinance institutions were efficient when indirect channel for credit supply through profit intermediary banks was not used. As well as credit distribution through profit intermediary banks was efficient when, credit distribution channel through profit making microfinance institutions was not used.

Further findings suggested, whenever choice of direct channel was involved, TSC must be decreasing. Non-conducive nature of credit business environment in rural areas cannot allow TSC to decrease due to underdevelopment of rural areas in terms of remoteness and poor infrastructure development, difficulties in identifying and screening borrowers due to difficulties in accessing borrower's information and

cultural barriers (poor tradition and customs). Therefore given current credit business environment in Tanzania rural areas, direct channel for credit supply is best for credit supply in urban areas.

CHAPTER SIX

DISCUSSIONS OF FINDINGS, CONCLUSION AND RECOMMENDATION

6.1 Chapter Overview

This chapter summarizes all the findings from analysis made in previous chapters (chapter 4&5) in relation to key objectives of the study. Applications of transaction cost economics theory have been evidenced, recommendations for policy and further studies have been given and conclusion was made.

6.2 Summary of Key Research Findings

One among key objectives of Liberalization of banking industry in 1991 was to regulate credit operations so as to ensure easy accessibility of such a facility, by majority of Tanzanians, especially those in rural areas at low and affordable costs. Current study findings showed that, a few commercial banks that scaled up their credit operations to rural areas are no longer interested in providing such a service to rural customers and therefore shutting down their credit operations in rural areas. They concentrate in urban areas with some few credit customers that they consider credit worth.

New and emerging commercial banks are also concentrating on urban borrowers, they are not interested to scale up their credit operations to rural areas.The fundamental theory that guides the current study, is ‘transaction cost economic theory’. According to this theory, when transaction costs is too high, there will not be a transaction at all. And therefore parties to such a transaction that didn’t take place

are considered inefficient in terms of transaction costs. With that regard, most commercial banks that failed to transact credit with rural customers were considered inefficient in terms of transaction costs.

Four different types of credit governance structures (credit contractual arrangements) that might be used by commercial banks to mitigate transaction costs were revealed in the current study. Choice of which governance structure to be used to govern a particular credit contract, depends on the level of transaction costs involved. Current study further revealed that, given the current credit business environment in Tanzania, 66.2% of commercial banks prefer using credit governance structure one (CGS1) among the four identified by distributing credits directly to final users rather than employing the rest of governance (CGS 2-4), that involves intermediaries. Only 33.8% of commercial banks prefer using intermediaries in credit supply, this trend led to multiplication of credit transaction costs.

Low trust level of banks on borrowers, poor borrower's reputation, remoteness of borrowers, borrowers with no credit collateral or guarantor, borrowers with low market value collateral, low expected borrowing frequency (loyalty), small credit amount needed by borrowers, causes TCs to rise. In the current study findings, whenever such factors are present during credit contractual arrangement, they necessitate rise of transaction costs which lead to inefficiency of parties involved. As a result, the transaction may not take place at all. Such costs could be reduced by commercial banks if they use more intermediaries to supply credit to rural borrowers rather than dealing with them directly.

Three main categories of transaction costs were analyzed, borrower's information search costs, credit contract negotiation costs and credit contract monitoring and enforcement costs. According to the findings, costs of monitoring and enforcing credit contacts was higher than other categories of transaction costs. The credit operating environment in Tanzania rural areas is not conducive to support direct credit supply from commercial banks. The national identification system is not yet in place, the credit reference bureau is not effectively functioning since it lacks borrower's information. Therefore the level of credit worthiness, trust, reputation and credibility established by banks on borrowers, usually not reliable and lead to default. Thus to avoid non repayments, commercial banks invests more on monitoring and enforcement of credits

Different methods of analysis used in the current study complement each other on assessing effects of transaction costs on choice of an efficient credit governance structure. In descriptive analysis, the average total transaction costs for CGS1 was lower than the rest of credit governance structures. Transaction costs theory states, efficiency will be achieved when a contractual arrangement (governance structure) economizes in terms of transaction costs, for that regard CGS1 is efficient than other governance structure. When logistic regression method was opted, similar results were obtained. Where commercial banks supply credits directly to individual borrowers (CGS1), it is the best choice for credits supply by commercial banks to urban based borrowers, given transaction costs.

CGS1 will only allow most commercial banks (large, small, domestic and foreign) to scale up credit operations to most part of the country and easy accessibility of credit

facility to most people in need of credit services, when the credit business operating environment in the country is conducive and stable to provide required support. Currently, most commercial banks provide credit services to borrowers mostly in urban areas where the environment is conducive and stable to support efficiency of CGS1.

Therefore CGS1 was highly preferred by most commercial banks and its efficient than CGS2-4 as it economizes in terms of transaction costs. These findings are true only if commercial banks persists with the current trend of providing credits to urban based borrowers and ignore rural based customers. Or when the credit business operating environment in Tanzania is conducive and stable in terms of effectiveness of national identification system, infrastructure development to allow accessibility to most remote areas and rural based borrowers, effective functioning of credit reference bureau (CRB), increase in literacy rate of the country so as to have knowledgeable borrowers equipped with credit and business management skills since it's not the role of the banks to train borrowers.

Current study further suggests, CGS1 is not suitable for allowing commercial banks to scale up their credit operations to rural and remote areas of Tanzania. Using CGS1 to scale up credit operations to rural areas by commercial banks multiplied borrower's information search costs, credit contracts negotiation costs and credit contracts monitoring and enforcement costs and therefore render's CGS1 inefficient in terms of transaction costs. Commercial banks were not able to absorb such costs, thus they opted not to provide the service to rural based customers.

6.2.1 Current Study Comparison with Previous Studies

Current study findings reflect developing economies environment.A number of factors were used as determinants of transaction costs. Legendary contributors in the field of transaction cost economics, Ronald Couse (1937), Oliver Williamson (1971, 1983, 1985, 1991, 1993, 2000, 2001 and 2010), Commons (1932) and Tadelis (2010), in their studies of organization of transactions and transaction costs used three variables as main causes of transaction costs.

The first one was bounded rationality, this is the information gap between transacting parties which may lead to practice of opportunistic behavior, where one party to a transaction take advantage of lack of information of the other party and benefit at expense of the other, for example one may borrow with a clear intention of not making repayment, without the lender knowing. As well bounded rationality causes uncertainty of both parties to a transaction, such parties may take measures to protect themselves and raise transaction costs.

Other determinants were investment in asset specificity. Parties to a transaction may invest into specific assets so as to serve best the other party and maximize benefits of transactions. For stance due to underdevelopment of rural environment in Tanzania, commercial banks may decide to build infrastructure to reach rural population or train staff dedicated in servicing credits to rural based borrowers. The last one was transaction frequencies. According to Williamson (2010), transaction frequencies is inversely related to transaction costs since it increases negotiation power and lower TCs.

Current study does not differ with prepositions made by Tadelis and Williamson (2010) on their determinants of transaction costs. In addition to bounded rationality, frequency of transactions and asset specificity, current study has pointed out several other determinants of transaction costs particularly for less developed countries like Tanzania. Such determinants includes illiteracy rate, poor infrastructure, unclear political will and commitment towards rural development, lack of national identification system, culture barrier (poor traditions and customs).

These determinants of TCs are relevant in diverse sectors, and not just commercial banks credit supply. They all have direct relationship with total transaction costs.On top of that, current study identified other specific determinants in relation to commercial banks credit operations in URT, including trust, reputation, distance, decision lag, borrowing frequency, credit size (loan amount), and presence of collateral or guarantor and market value of collateral. These determinants were used to generate specific and measurable elements of TCs that were actually used for analysis in current study.

Another study on determinants of transaction costs and credit access by SMEs and poor households in Zimbabwe by Masuko and Mafuru (2003) pointed out determinants of transaction costs in credit supply chain. Such determinants include, borrowing experience which inversely relate to transaction costs, time factor which directly relate to transaction costs, loan size which inversely relate to transaction costs and distance which is directly related to transaction costs. Their study was not specifically on commercial banks rather diverse financial institutions involved in

credit distribution. Current study focused on commercial banks credit supply in Tanzania. Some of their determinants founded in Zimbabwe resembles those founded in current study.

Table 6.1:Summary of key Transaction Costs Determinants Identified in the Current Study

Scholars/Studies	**TCs Determinants**		**Effect on TCs**
Williamson, Course, Tadelis, Commons (TCs determinants) supported and adopted by current study	Transaction frequency		-
	Asset specificity		+
	Bounded rationality		+
Typical for less developed countries like Tanzania, identified in current study	Illiteracy rate		+
	Poor infrastructure		+
	Unclear political will and commitment		+
	Lack of national identification system		+
	Culture barrier (poor traditions and customs)		+
Specific for commercial banks credit operations in Tanzania as used in current study	Trust	High	-
		Low	+
	Reputation	High	-
		Low	+
	Credit amount		-
	Borrowing frequency		-
	Distance		+
	Decision lag		+
	Presence of collateral/guarantor		-
	Market value of collateral	High	-
		Low	+

Source: Researcher (2015)

From the Table 6.1, transaction costs determinants, mostly supported by the current study have been shown and their effect towards transaction costs. The preceding authors emphasized on transaction frequencies, bounded rationality and asset specificity as main transaction costs determinants. Current study does not differ with the preceding authors, on top of that several other determinants of transaction costs of commercial banks credit operations in Tanzania have been identified. Mostly have been used in TCs measurement process in the current study after been further broken down, as appeared in chapter five.

Igwe and Egbuson (2013), pointed out several determinants of transaction costs in their study of determinants of transaction costs for borrowers among farmers in Ikwuano, local government area, in Abia state Nigeria. Basically their study focused on demand side of credits. Current study focused on supply side of credits. Their study showed that distance to the credit institution, age of the farmer, interest rate, loan size and membership of cooperatives were positive and significantly related to transaction costs. Assets of the farmer and information services were negative and significantly related to transaction costs. Level of education of the farmer, savings and gender were positive but not significant to transaction costs.

Hyytinen and Pajarinen(2008), Temu (2009), Olomi (2009), and Beck (2008), all agreed that, the main source of high credit transaction costs is asymmetric of information between lenders and borrowers. Under asymmetric information conditions commercial banks were uncertain about the future behavior of the borrowers in terms of repayments. Information asymmetry between borrowers and the commercial banks is reflected in inability of the majority of rural based

borrowers to provide up to date reliable financial information and realistic business plans, which increases credit transaction costs. Consequently limits the ability of banks to assess the credit-worthiness of the individual borrowers. Transaction cost economic theory argues that banks are not interested in offering credit to MSMEs, farmers and poor households because information asymmetries resulting to high screening costs, credit contracts negotiation costs, monitoring, and enforcement costs.

Current study agrees with arguments given by preceding authors that high transaction costs associated with credit provision to rural areas due to information asymmetries, is the reason why commercial banks do not want provide credit services to rural areas of Tanzania. Current study further added, not only information asymmetric caused high transaction costs but as well as non-conducive nature of rural environment of Tanzania which is characterized by poor infrastructure (remoteness), Unclear political will and commitment towards rural development, high illiteracy rate, poor traditions and customs (cultural barriers). Current study went further and provide possible solution to high transaction costs associated with commercial banks credit provision to rural areas of Tanzania. Preceding authors tried to point out the problem, but current study confirmed the problem and recommended solution.

Current study recommends commercial banks to use credit governance structures with intermediaries when providing credits to rural based borrowers, for example, community development banks, village community banks (VICOBAs), farmers associations, trader associations, village savings and loan associations

(VSLAs),Savings and Credit Associations (SACAs), Rotating savings and credit associations (ROSCAs), Non-government organizations and Non-profit making organizations. Most of these intermediaries are located in rural areas, they highly equipped with information of rural based borrowers and therefore asymmetric of information will be solved and transaction costs levels lowered. Such intermediaries will absorb transaction costs instead of commercial banks. Thus commercial banks will easily control, monitor and enforce credit contracts on intermediaries but not individual borrowers. Therefore scale up of commercial banks credit operations to rural areas will be possible. Currently two commercial banks are actively using intermediaries in their credit business and they have succeeded to scale up and maximize their profitability.

6.2.2Application of Transaction Cost Economics Theory in Credit Supply Market in Tanzania

Current study has discovered possible three different scenarios of applicability of transaction costs theory that were not pointed out by other scholars. The first scenario is when transacting parties used a mode of governance structure that economizes in terms of transaction costs and therefore efficiency is attained. This scenario normally assumes that, where there is economization of transaction costs, there is massive flow of transactions, then there is efficiency, the same way it applies to neo-classical economic theories, like in theory of cost of production or theory of the firm.

This scenario of transaction costs theory does not applies to less developed economies like Tanzania where the credit business operating environment is not

conducive and supportive to allow smooth flow of credit business from commercial to both urban based borrowers and rural based borrower.The second scenario is when, the contractual arrangements made by transacting parties led to economization in terms of transaction costs, despite that fact, efficiency is not attained. This scenario of transaction costs theory applies to commercial banks credit supply in Tanzania. Most commercial banks in Tanzania economizes in terms of transaction costs when supplying credits to customers, in particular, urban based customers using credit governance structure one (CGS1), these banks are not efficient despite economization due to the fact that they failed to scale up their credit operations to rural areas where majority of those in need of credit services reside. Thus most customers in rural areas are left out of commercial banks credit facility due to inability of commercial banks to scale up their credit operations.

The third scenario of applicability of transaction cost economics theory is when, the contractual arrangements (mode of governance structure) opted by transacting parties does not economize in terms of transaction costs yet efficiency is attained. This scenario applies to commercial banks credit operations in Tanzania. Current study findings revealed that, some few big domestic commercial banks have dominated credit supply market in Tanzania. Since they provide credit services to both urban and rural based customers regardless of high transaction costs associated with rural based customers due to non-conducive nature of credit business operating environment in rural areas.

Such banks used both direct channel for credit supply and other indirect channels that involves intermediaries to supply credits to both rural based customers and urban

based customers. These banks incur high transaction costs compared to those operate in urban areas only, thus they are not economizing in terms of transaction costs but still they are efficient due to the fact that, they have ability to absorb the costs incurred and scale up their credit operations by making credit services available to both urban based and rural based customers at mutual gain.

As a result of preference of CGS1 by 66.2% of commercial banks, the market share of commercial banks credit operations is limited and they scramble for the same few urban based customers who often turn up to be fraud and defaulters. Current study revealed, economizing of transaction costs may not be enough to conclude that a credit governance structure is efficient but also ability of a credit governance structure to assist commercial banks to scale up their credit operations throughout the country regardless of transaction cost levels, as long as they can be absorbed by commercial banks. Therefore enable more of those in need of credit services to access credit facilities.

Three largest domestic commercial banks among 34 registered and licensed commercial banks in the country, current study revealed that, they have monopolized the credit supply market in the country. These banks are not just using direct channel for supplying credits but multiple channels of supplying credits (CGS1-CGS4). The costs of credits is high because of distance, remoteness of rural areas, usage of intermediaries and high risk of default due to uncertainty nature of income generating activities of those who lives in rural areas, still these three banks are considered efficient. Despite of all difficulties, they managed to absorb the transaction costs involved, expand their credit operations and grant opportunity to

many in need of credit facility to have access of such service. Despite high interests charged, people afford to borrow and make repayments.

According to neo-classical economic theories, there is no efficiency without optimality. Input and output relationship, or input costs and output costs relationship has to be measured to determine efficiency. Under transaction costs theory, optimality does not dictate efficiency. As witnessed from the current study, most commercial banks supply credits through CGS1 to urban based customers with an intention of economizing in terms of transaction costs. Yet they are not efficient due to the fact that credit business operating environment in Tanzania is not conducive to allow scale up of credit operations to rural based markets by commercial banks when they use CGS1. Under transaction costs theory, what matter is the ability of transacting parties to absorb the cost caused by the mode of governance structure (contractual arrangement used) mutually agreed to be used to govern their transaction at mutual gain. This allows transactions to take place despite the costs, renders services available and realization of efficiency in transaction costs terms.

6.3 Conclusion

Liberalization of banking industry in Tanzania from 1990's aimed at promoting development of market based financial sector as a strategy to turn around the deteriorating economy and accelerate economic growth. Ultimately to bring soundness, efficiency and integrity of financial and banking system, also to easy accessibility of financial services to micro, small and medium enterprises, farmers and majority of Tanzanians, especially those dwell in rural areas.Despite such considerable efforts by the government of Tanzania that led to greater increase in

number of domestic, foreign and private commercial banks and nonbanks financial institutions, accessibility of financial services, especially credit facility is still a challenge. BOT reports (2014) revealed that less than 15% of Tanzanians have access to formal financial services. Further statistics from same reports showed, formal private sector credit to GDP in Tanzania is 18% while the average of sub-Saharan Africa is 60%.

This is clear indication of extent of formal credit starvation faced by Tanzanians. MSMEs survey (2014) indicated that 90% of MSMEs did not have access to financial services from formal financial institutions. About 22% of these were served by informal associations. 69% were financially excluded in the sense of credits. Finscope survey (2013) also pointed out that, only 6.8% of all Tanzanians who live in rural areas have access to financial services from commercial banks. Rural population is 70.4% of total population in the country.

Given above facts, current study revealed that, formal financial institutions, particularly commercial banks are very sensitive to risks and high costs. Majority of Tanzanians especially those in serious need of credits live in rural part of the country. Such areas are very underdeveloped in terms of infrastructure and thus difficult to be reached and costly to locate credit customers. Lack of effective National identification system and poor planning of towns and cities also make it difficult to locate and identify credit customers and even too costly to acquire their information and hence impose huge risks to commercial banks giving credits to most people in need.

On top of that, majority of Tanzanians lack business and financial management knowledge, skills and commitment as a result they usually divert the use of credits given, leading to high risks of defaults and non-repayments of credits. Normally commercial banks tend to avoid giving credits in such circumstances due to the fact that they are not ready to incur high costs to provide financial and business management trainings to credit customers. Above facts made costs of transacting credits too high and renders commercial banks inefficient in terms of credit transaction costs since they cannot absorb such costs, thus they chose not to provide credit services at all, especially to rural based customers.

Most commercial banks prefer direct channel of distributing credits to borrowers (CGS1). They find it suitable dealing directly with individual persons rather than using intermediaries. Most commercial banks do not understanding the cost implication of using different credit governance structures. Credit governance structure one(CGS1) or direct channel of supplying credits carries low transaction costs compared to indirect channels. CGS1 is the most economizing mode of credit governance structure. Despite that fact, usage of direct channel has negative effects to both commercial banks and borrowers.

When providing credits to borrowers in rural areas, often transaction costs tend to rise, commercial banks usually required to absorb all the costs themselves if using CGS1. Because they are risks and cost sensitive, mostly decided better off not to provide credit services at all despite the need and focus only in urban areas where the costs of credit transaction is low. This fact led to credit starvation to most people in need of credit services in Tanzania due to limited supply of credit facility from

commercial banks. Despite that, most commercial banks in Tanzania are economizing transaction costs through using CGS1, they are considered inefficient due to immense formal credit starvation faced by majority of Tanzanians in need of credit facility, especially those in rural areas due to limited supply of credit services from commercial banks.

As a result of critical need of fund for business and farming, people borrow from informal financial institutions because services are either not available or available at difficulty conditions from commercial banks that most borrowers cannot afford. Despite the fact that, some of these financial institutions are considered credit sharks due to their tendency of reaping money from borrowers by charging very high interest rates, some up to 6% per month (72% annually), still people borrow from them and make repayments.

It has been evidenced from the study findings that, it is not satisfactory to simply consider a commercial bank as efficient in terms of credit transaction costs when using a mode of credit governance structure that is economizing transaction costs. The selected mode of credit governance structure not only has to economize transaction costs but also has to grant an opportunity for commercial banks to scale up their credit operations to both rural and urban areas. According to transaction cost economics theory a CGS is considered efficient as long as it economize transaction costs, with an assumption that, where there is transaction costs economization, there is also massive flow of transactions. Above facts do not apply to commercial banks credit operations in Tanzania because flow of credit transactions from commercial is limited especially in rural areas despite usage of CGS1.

From the findings commercial banks in Tanzania are economizing transaction costs by using CGS1. Despite that fact, they are not considered efficient due to failure scaling up their credit operations to rural areas because of fear of high TCs. With exception of three (3) big domestic commercial banks, the remaining commercial banks credit operations is limited only to urban areas as a result of using CGS1.The Tanzanian credit business operating environment is still far behind to allow efficient functioning of CGS1 (direct supply of credits from commercial banks to borrowers). Most part of Tanzania rural areas is still remote and difficult to be accessed. The national identification system is not yet in place, thus identification and searching of borrower's information is still a problem.

The newly established credit reference bureau (CRB) is not yet effectively functioning since so much information of borrowers is still missing, poor infrastructure in most part of rural areas of the country pose a greater challenge to reach majority of those living in those areas. Despite above challenges that may lead to high transaction costs when providing credit services to people living in rural Tanzania, yet three big domestic commercial banks are providing credit services to most part of the country, including many borrowers who live in rural areas.

The reason behind their success and domination of credit supply market is usage of multiple credit governance structures (CGS1-CGS4). They supply credits directly to borrowers but also they use intermediaries where necessary. Commercial banks transfer transaction costs and risks to intermediaries where seemingly high and difficult to be absorbed and thus assure availability of credit services.With reference to new institution economics as pioneered by Williamson (1971), the transaction

costeconomics theory states that, when one or more parties to a transaction incur high transaction costs which cannot be absorbed, such parties are considered to be inefficient in terms of transaction costs (TC). Current study reveals that, credit transaction costs for commercial banks in Tanzania is very high and thus renders them inefficient if not absorbed. Most commercial banks tend to avoid offering credits facility to majority of Tanzanians especially those live in rural areas since they cannot absorb high transaction costs involved. As a result they scramble for the same, few, known credit customers in urban areas to avoid high transaction costs and risks of default and losses.

Despite high transaction costs in the provision of credit services by commercial banks in Tanzania, some few banks(mainly three banks) have dominated credit supply market(both rural and urban market). More than 50% market share for credit supply is controlled by three big banks in the country. Regardless of the fact that, they incur high transaction costs, they are capable of absorbing such high costs and renders credit services available to customers at interest rate affordable than most non-banks and informal financial institutions. Such commercial banks are considered efficient, and use CGSs with intermediaries to penetrate rural based market.

6.4 Recommendations

6.4.1 Policy Recommendations

The government of URT, should put more emphasis on infrastructure development and makes most part of the country accessible. This will easy the process of locating credit customers and commercial banks will expand their market share for credit supply at reduced transaction costs. The government should give priority on proper

planning of urban and rural areas, town and cities but as well as to speed up development of national identification system. Such developments will assists both banks and non-banks financial institutions to easily and quickly search and screen potential credit customers and maintain data base of borrowers at low costs.

The current established credit reference bureau is neither efficient nor effective since it lacks so much borrower's information, it has information of some few known borrowers, especially those located in urban areas. Installation of the national identification system is so vital for commercial banks credit operations since it involves maintenance of the national data base that is linked with commercial banks, health insurance funds, pension funds, revenue authority and the like. Such developments will easy accessibility of borrowers information and extremely cut down the costs.

Commercial banks should consider to transact credits through both direct and indirect channels rather than dealing only directly with individual borrowers given current credit operational environment in Tanzania. Commercial banks should consider transacting more with groups of individuals (group loans), SACCOS, traders associations, farmers associations, entrepreneurs associations, women associations, community development banks and the like which will later on transact credits with individuals in their localities. The government of Tanzania should emphasize on establishment and incubation of these associations since they can easily be reached by commercial banks and positively change lives of many Tanzanians.

It is cheaper to identify and locate credit customers of this nature (as above), acquire their detailed information but as well majority of those in need of credits will be reached at reduced transaction costs. Credit customers of this nature involves minimum risks of defaults and non-repayments, and even minimum costs to enforce credits contracts in case of default is involved. Once the national identification system has been installed and works effectively, the credit reference bureau (CRB) will also be linked to its data base, such a move will lead to efficient functioning of CRB and when most part of the country (especially rural areas) can be easily accessed, it will then be rational for commercial banks to transact credits directly with individuals since minimum transaction costs and massive flow of credit transactions will be involved.

The microfinance policy was established with an intention of achieving, wide spread access to micro finance throughout the country and making sure a wide range of institutions were involved in provision of such services, including specialized and non-specialized banks, non-banks financial institutions, rural community banks, cooperative banks, SACCOS and NGOs. Therefore microfinance was integrated with mainstream financial system. To some extent the government of Tanzania has succeeded on spreading microfinance services in the country, unfortunately the move brought severe consequences to borrowers.

Most of these microfinance institutions do not have funds of their own, thus they borrow from commercial banks. Most commercial banks in Tanzania are inefficient in their credit operations, especially when dealing with rural based customers, they operate at very high transaction costs, such costs are transferred to microfinance

institutions as intermediaries that ultimately transferthe costs as interest expense to the final borrowers that suffer severely.

The microfinance policy has to be improved further, the vital element of transaction costs has to be captured since microfinance activities have been integrated to mainstream financial system. The multiplying effect of transaction costs has to be minimized by the government. Final users of credits, mostly are low income earners, small farmers, micro and small businesses, mostly cannot afford to absorb high transaction costs and thus adversely affect their income generating activities. Therefore government intervention is crucial to subsidize on transaction costs particularly on microfinance institutions that supply credits customers based on rural areas.

The government of Tanzania should make tangible socio-economic development in rural areas. More resources should be committed towards education improvements (i.e. construction of schools, subsidizing school fees), infrastructure development to make most areas accessible, provision of diverse and reliable social services such as water, electricity, health services and provision of entrepreneurial skills to rural population (70.4% of all Tanzanians live in rural areas). Such developments will greatly reduce the level of poverty in rural areas and cut down transaction costs.

Business environment will improve and made conducive to attract private firms investment inclusive commercial banks and ultimately financial services (including credit facility) will be highly available to majority of those in need. Most commercial banks in Tanzania are privately owned. Private sectors are too sensitive to invest in

areas with high levels of TCs, thus government interventions are needed through tangible investment in rural areas that eventually lower cost of making transactions and attract entry of private commercial in rural credit supply markets.

According to transaction costs economics theory, where there is high socio-economic and technological under development, there is also very high transaction costs. This is what is happening in Tanzania rural areas. Due to that fact and despite liberalization of banking industry in Tanzania, most commercial banks are not willing to invest in rural areas because of high levels of transaction costs associated with credit business. Regardless of the market interest rates for credits, commercial banks should be allowed to charge different interest rates in different areas of the country, depending on the level of development in those areas. This will enable commercial banks to compensate high transaction costs in most underdeveloped regions of the country. Thus allows commercial banks scale up despite high transaction costs and easy accessibility of credit facility from commercial banks throughout the country.

6.4.2Recommendation for Further Research

The work of price mechanism is costly. How to identify the cost elements when transacting (exchange) in an open market system and how to measure and quantify such costs remain a challenging puzzle for economists. For market transaction (exchange) to occur, one needs to identify who is it he/she wishes to deal with and inform others, conduct negotiation of terms that lead to bargain and draw up of contract, not only that but also to undertake inspections that needed to make sure terms of the contract are observed.

In every part of transacting activities, transaction cost is involved, however it has been and still is a much slower process to work out and have common fundamental insight on how to identify, measure and quantify elements of transaction costs. Some scholars like Williamson (1971, 1983,1985, 1996, 2001 and 2010) used direct measurements of transaction costs, simply as economic value of resources used in locating trading partners and executing transactions. Under this type of measurement certain proxies such as uncertainty, transaction frequency, asset specificity, opportunitism, trust level, reputation and geographical distance of transacting parties are normally used to ascertain and estimate transaction costs. This approach of measuring transaction costs was used in the current study.

Other scholars quantified transaction costs by measuring the transaction sector of the economy. The whole economy is divided into two parts (i) Transformational or production sector (ii) Transaction sector. Thus by measuring total value of resources used in transaction sector, the aggregate size of transaction costs in the economy is ascertained. Despite the fact that this concept proved positive relationship between the two sectors of the economy, but the first attempt to quantify the concept was elusive and seemingly un-quantifiable.

Non-marketed transaction costs. Scholars like De soto (2000) believed transaction sector, captures only part of transaction costs that flows through the market. Non-marketed transaction costs includes but not limited to costs of resources spent in waiting, getting permits to do business, cutting through the red tapes and bribing officials. Current study also made use of this approach in quantification of transaction costs. These non-marketed transaction costs are wide spread in

developing and transition economies as such of Tanzania, though the size of official transaction sector is small.

Garbre-Madhin (2001) in her study of Ethiopia grain market, measured transaction costs as the costs of setting up a business, i, e, the cost of entry. This differ from barrier to entry that is traditionally emphasized in economics literature, instead the emphasis is on government imposed cumbersome rules and regulations such as registration and licensing requirements, rules on sale or lease of real estate, import and export regulations and taxes. These barriers force entrepreneurs to conduct some or all of their business outside the official economy or even worse, discourage them from entry all to gather.

Financial economists used money to recognize the costs of exchange since the rise of money facilitates the exchange of one commodity for another. Despite that fact, in financial economics, transaction costs are generally understood as the costs of investing in financial markets, that includes brokerage fees and ask-bid spreads as examples. As clearly described above, there are vast ways of measuring and quantifying transaction costs, however, validity of most of these approaches is still in question. There is no commonly or generally accepted approach of measuring and quantifying the cost of exchange. Clearly there is a room for further research on which approach should be used to measure and quantify transaction costs. An approach that will be generally accepted by scholars of New Institutional Economics as their benchmark approach and best practice in quantification and measurement of transaction costs (TC).

REFERENCES

Aikaeli, J. (2008). Commercial banks efficiency in Tanzania, CSAE conference, st. catherine's college, oxford.

Alchian, A. (1977). Some implications of recognition of property rights transaction costs.*In Economics and Social Institutions Journal*, edited by Karl Brunner. Boston: Martinus Nighoff Publishing.

Allen, D. (1991). What are transaction costs?*Research in Law and Economics* 14: 1-18.

Allen, D. (2000). Transaction costs. In Encyclopedia of Law and Economics, Vol. 1, edited by Boudewijn Bouckaert and Gerrit De Geest. Edward Elgar.

Arrow, K. (1969). The organization of economic activity: issues pertinent to the choice of market versus nonmarket allocation. In The Analysis and Evaluation of Public Expenditures: the PBB System, Joint Economic Committee Compendium, 91st Congress, 1st Section, Vol. 1. Government Printing Office: Washington, D.C.

Baker, C. C. (1984). Some Models for Estimating Technical and Scale Inefficiencies in Data Envelopment Analysis. *Management Science Journal*, Vol. 30, No. 9, pp. 1078-1092.

Baltensperger, E. (1972). Economies of Scale, Firm Size, and Concentration in Banking, *Journal of Money, Credit and Banking*, Vol. 4, No. 3, pp. 467-488.

Bank of Tanzania, (2013). *Annual Report*. Dar es Salaam.

Bank of Tanzania, (2011). *Annual Report*. Dar es Salaam.

Bank of Tanzania, (2010). *Annual Report*. Dar es Salaam.

Bank of Tanzania, (2008). *Annual Report*. Dar es Salaam.

Bank of Tanzania, (2006). *Annual Report*. Dar es Salaam.

Bank of Tanzania, (1997). *Annual Report.* Dar es Salaam.

Banking and Financial Institutions Act (1991).

Barzel, Y. (1985). Transaction costs: are they just costs?*Journal of Institutional and Theoretical Economics* 141: 4-16.

Benham, A. B. (1998). Measuring the costs of exchange. Manuscript. Washington University in St. Louis.

Berger,A. N. (1997). Efficiency of Financial Institutions: International Survey and Directions for Future Research. Working Papers Wharton School, University of Pennsylvania.

Berger, A. N. (1993). The Efficiency of Financial Institutions: A Review and Preview of Research Past, Present, and Future. *Journal of Banking and Finance*, Vol. 17, pp. 221-249.

Brighouse, D. (2001). *The Financial Services Environment; An Advanced Guide to Financial Institutions and their Regulation*. CIB Publishing Canterbury.

Brown, J. D. (2001).*Using Surveys in Language Programs*. Cambridge: Cambridge University Press.

Charnes, C. R. (1978). Measuring the Efficiency of Decision Making Units.*European Journal of Operational Research*, Vol. 6, pp. 429-444.

Čihák, M. and Demirgüç-Kunt, F.L. (2012). Benchmarking Financial Systems around the World, Policy Research Working Paper 6175, Washington: World Bank.

Clarke,G. (2001). Foreign Bank Entry: Experience, Implications for Developing Countries, and Agenda for Further Research. World Bank Working Paper series 2698.

Debreu,G. (1959).*Theory of value, an Axiomatic Analysis of Economic Equilibrium*. John Wiley, New York.

Dornyei, Z. (2007).*Research Methods in Applied Linguistics: Quantitative, Qualitative and Mixed Methodologies*. 1st Edition. Oxford: Oxford University Press.

Drake, L. (2002). Economies of Scale in UK Building Societies: A Reappraisal Using an Entry/Exit Model. *Journal of Banking and Finance*, Vol. 26, pp. 2365- 2382.

Ernst and Young, (2010), *Tanzania banking sector performance review report*

Farrell, M. J. (1957). The Measurement of Productivity Efficiency. *Journal of the Royal.*

FSDT, (2011). *The agricultural finance markets scoping of Tanzania*. A survey report.

Finscope, (2013). *Demand for and access to financial services*. Tanzania survey report.

Green,W. (2003).*Econometric Analysis*. Prentice-Hall, New York. Fifth Edition.

Hirshleifer, G. (1993).*Price Theory and Applications*. Prentice-Hall of India, New Delhi, Fifth Edition.

Howard, H. (2001).Commercial Banks Efficiency in Barbados. *Savings and Development*, Vol. 25, No. 3.

Igwe, E. (2013).Determinants of transaction costs for borrowers among farmers in Ikwuano, local government area, in Abia state Nigeria, *American Journal of Rural Development*, 2013 1 (5), pp 116-120.

Ikhide,S. (2000). Efficiency of Commercial Banks in Namibia. BON Occasional Paper No.4.

IMF-World Bank, (2003). Tanzania: Financial System Stability Assessment, Including Reports on the Observance of Standards and Codes on Banking Supervision, IMF Publications.

Kamala, D. (2000).The Analysis of the Performance of Rural/ Micro financial Institutions in Tanzania.*Uongozi-Journal of Management Development* Vol. 12(1) 120-140.

Kasekende, L.(2010). Developing a Sound Banking System in Sub-Saharan African Countries.*African Finance in the 21st Century*.

Kessy, S.and Temu, S. (2010). The Impact of Training on Performance of Micro and Small Enterprises Served by Microfinance Institutions in Tanzania.*Research Journal of Business Management* 4 (2): 103-111 issn 1819-1932 Copyright 2010 Academic Journals Inc.

Kibassa, R. (2012). The role of small and micro enterprises on government revenue: *Journal of economics and sustainable development*. Vol. 3. No 8. 2012. Netherlands.

Kimei, C. S.(2002).The Role of Commercial Banks in Rural Finance: The Case for Tanzania; Paper presented at the East African Sub-regional Workshop on the "Role of Commercial Banks in Rural Finance", Arusha, Novotel April 22-23.

Kothari, C. R. (1990).*Research Methodology: Methods and Techniques*. H.S. Poplai, 2nd Edition.

Kuzilwa, J. A. (2002).The Role of Credit for Small Business Success: A Study of the National Entrepreneurship Development Fund in Tanzania. A Paper Presented at the 6th Annual International Conference on Entrepreneurship and Small Business Development (ICAESB), White Sand Hotel, Dar es Salaam.

Kuzilwa, J.A. (1997). Credit Needs For Small Business. The Tanzanian *Banker Journal*. Issue No. 9, pp. 13-16, June.

LART, (2002).*Annual Report*, Dar es Salaam.

Leibenstein, H. (1966). Allocative Efficiency versus 'X-efficiency. *American Economic Review*, Dec., pp. 1252-1258.

Levin, T. (2010). Contracting for Government Services: Theory and Evidence from U.S. Cities,*Journal of Industrial Economics* 58(3):507-541.

Levy, B. S.(1994). The Institutional Foundations of Regulatory Commitment: A Comparative Analysis of Telecommunications Regulation,*Journal of Law, Economics and Organization*, 10 (October): 201-246.

Levy, B. S.(1996). *Regulations, Institutions, and Commitment: Comparative Studies of Telecommunications*. Cambridge University Press.

Lindley,M. (2000). Excess Reserves During the 1930s: Empirical Estimates of the Cost of Converting Unintended Cash Inventory into Income Producing Assets. Macon State College Paper.

Lyons, B.(1996). Empirical Relevance of Efficient Contract Theory: InterFirm Contracts, *Oxford Review of Economic Policy*, 12 (No. 4): 27-52.

Maddala,G. S. (1983).*Limited-Dependent and Qualitative Variables in Econometrics*. Cambridge University Press.

Masco-Colell,A. (1995).*Microeconomic Theory*, 1st edition. Oxford University Press.

Maximambali, F. (1999). Research on Client Exits (Dropouts) From Tanzanian Micro-Finance Institutions. Dar es Salaam.

McDonald, S.(2007). Financial Deepening in Sub-Saharan Africa: Empirical Evidence on the Role of Creditor Rights Protection and Information Sharing, IMF Working Paper, Washington: International Monetary Fund.

Mitchell,O. (1996). Economies of Scale and Scope at Large Commercial Banks: Evidence from the Fourier Flexible Functional Form, *Journal of Money, Credit and Banking*, Vol. 28, pp:178-197.

Mkenda, B. and Vancampenhout, B. (2011). Estimating transaction costs in Tanzanian supply chains, the international growth center (IGC) Tanzania.

Mlambo, K. M. (2012). Comparative Overview of Bank Regulatory Experiences and the Impact on Bank Competition and Intermediation Efficiency in Africa,*Bank Regulatory Reforms in Africa*.

Myers, S.and Rajan, R. (1995). The Paradox of Liquidity. NBER Working Paper No. 5143.

Olomi, R. (2009). *African entrepreneurship and small business development*, Dar es Salam: Otme Company Ltd.

Oppenheim,A. N. (1992).*Questionnaire Design, Interviewing and Attitude Measurement*. London: Pinter Publishers Limited.

Parisio, L. (1992). Economies of Scale and Scope in the Italian Bank Industry: Evidence from Panel Data. Rivisita *Internazionale di Scienze Economiche e Commerciali*, Vol. 39, pp.959-78.

Rubambey, I. (2002).Challenges of Rural Finance Policy Making, Paper presented at the East African Sub-Regional Workshop on the Role of Commercial Banks in Rural Finance, Arusha, Novotel, April 22-23.

Sanya, G, (2012). Assessing Bank Competitiveness within the East African Community, IMF Working Paper 12/32.

Schenk, R. (2004). What is Economic Efficiency? *Journal of Economic Education*.

Serengeti advisors, (2012). *Tanzania banking survey report.* Dar es Salaam.

Seymour, S., and Norman, B. (1983). *Asking Questions. San Francisco:* Jossey-Bass,

Williamson, O. (2010). Transaction cost economics, University of California, Berkeley.

Tanzania Cooperative Development Policy, (2002). Dar es Salaam.

The World Bank, (2011). Africa Development Indicators data bank, The World Bank, Washington, D.C., United States of America.

The World Bank, (2012). Global Development Finance data bank, The World Bank, Washington, D.C., United States of America.

The World Bank, (2013). Global Financial Development data bank, The World Bank, Washington, D.C., United States of America.

The United Republic of Tanzania: Ministry of Finance, (2000). The National Microfinance Policy.

United Nations Development Programme, (1999). Microfinance Essentials: A synthesis of lessons learned. Evaluation Office, No.3 December 1999.

Wangwe, C. (2004). Innovation in rural finance, third annual conference on microfinance, AICC, Arusha.

APPENDICES

Appendix 1:Linear Regression Results

1.1 Total information search costs (TSC) and total transaction costs (TTC)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.941[a]	.886	.885	3.57401E6

a. Predictors: (Constant), Total search costs

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.001E16	1	2.001E16	1.566E3	.000[a]
	Residual	2.580E15	202	1.277E13		
	Total	2.259E16	203			

a. Predictors: (Constant), Total search costs

b. Dependent Variable: Total transaction costs

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.272E6	508757.893		6.432	.000
	Total search costs	4.959	.125	.941	39.579	.000

a. Dependent Variable: Total transaction costs

1.2 Total negotiation costs (TNC) and total transaction costs (TTC)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.849[a]	.721	.719	5.58924E6

a. Predictors: (Constant), Total negotiation costs

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.628E16	1	1.628E16	521.115	.000[a]
	Residual	6.310E15	202	3.124E13		
	Total	2.259E16	203			

a. Predictors: (Constant), Total negotiation costs

b. Dependent Variable: Total transaction costs

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.011E6	1.280E6		-5.478	.000
	Total negotiation costs	9.611	.421	.849	22.828	.000

a. Dependent Variable: Total transaction costs

1.3 Total enforcement costs (TEC) and Total transaction costs (TTC)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.993[a]	.985	.985	1.27405E6

a. Predictors: (Constant), Total enforcement costs

ANOVA[b]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.226E16	1	2.226E16	1.371E4	.000[a]
	Residual	3.279E14	202	1.623E12		
	Total	2.259E16	203			

a. Predictors: (Constant), Total enforcement costs

b. Dependent Variable: Total transaction costs

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.825E6	184993.709		9.865	.000
	Total enforcement costs	1.320	.011	.993	117.110	.000

a. Dependent Variable: Total transaction costs

Appendix 2: Binomial Logistic Regression Results

2.1: Credit governance structure one (CGS1)

Logistic Regression Model Summary for CGS1

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	70.101[a]	.647	.863

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

Prediction selection of CGS1

			Predicted		
			CGS1 DICHOTOMOUS		
	Observed		NOT SELECTED	SELECTED	Percentage Correct
Step 1	CGS1 DICHOTOMOUS	NOT SELECTED	95	4	96.0
		SELECTED	6	99	94.3
	Overall Percentage				95.1

a. The cut value is .500

Coefficients of predictors of CGS1

	B	S.E.	Wald	Df	Sig.	Exp(B)
TSC	1809400	.000	14.092	1	.000	1.000
TNC	-2228200	.000	7.950	1	.005	1.000
TEC	21225000	.000	9.261	1	.002	1.000
Constant	-2.903	.943	9.475	1	.002	.055

2.1 : Credit governance structure two (CGS2)

Logistic Regression Model Summary for CGS2

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	275.318[a]	.023	.030

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Prediction selection of CGS2

			Predicted		
			CGS2 DICHOTOMOUS		
	Observed		NOT SELECTED	SELECTED	Percentage Correct
Step 1	CGS2 DICHOTOMOUS	NOT SELECTED	24	66	26.7
		SELECTED	13	101	88.6
	Overall Percentage				61.3

Logistic Regression Model Summary for CGS2

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	275.318[a]	.023	.030

a. The cut value is .500

Coefficients of predictors for CGS2

		B	S.E.	Wald	Df	Sig.	Exp(B)
Step 1[a]	TSC	-13474000	.000	.465	1	.495	1.000
	TNC	57080000	.000	3.382	1	.066	1.000
	TEC	-5679000000	.000	.018	1	.894	1.000
	Constant	-.854	.535	2.546	1	.111	.426

a. Variable(s) entered on step 1: TSC, TNC, TEC.

2.3: Credit Governance structure three (CGS3)

Logistic Regression Model Summary for CGS3

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	266.801[a]	.063	.084

a. Estimation terminated at iteration number 3 because parameter estimates changed by less than .001.

Prediction selection of CGS3

			Predicted		
			CGS3 DICHOTOMOUS		Percentage
	Observed		NOT SELECTED	SELECTED	Correct
Step 1	CGS3 DICHOTOMOUS	NOT SELECTED	57	33	63.3
		SELECTED	44	70	61.4
	Overall Percentage				62.3

a. The cut value is .500

Coefficients of predictors for CGS3

	B	S.E.	Wald	Df	Sig.
TSC	-181150	.001	28950	1	.986
TNC	-225130	.002	10742	1	.992
TEC	-1841500	.000	24478	1	.988
Constant	202.027	12150	27655	1	.987

2.4: Credit governance structure four (CGS4)

Logistic Regression Model Summary for CGS4

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	148.976[a]	.454	.616

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

Prediction selection for CGS4

		Predicted		
		CGS4 DIECHOTOMUS		
Observed		NOT SELECTED	SELECTED	Percentage Correct
CGS4 DIECHOTOMUS	NOT SELECTED	99	26	79.2
	SELECTED	6	73	92.4
Overall Percentage				84.3

Coefficients of predictors for CGS4

	B	S.E.	Wald	Df	Sig.	Exp(B)
TSC	-30662000	.000	1.069	1	.301	1.000
TNC	-21724000	.000	.398	1	.528	1.000
TEC	-18273000	.000	5.800	1	.016	1.000
Constant	3.235	.668	23.431	1	.000	25.414

Appendix 3:Questionnairefor PhD Thesis

STUDENT NAME: HERIEL EMANUEL NGUVAVA
REG NO: HD/B/287/T012

To be filled by credit officers or anyone responsible with administration and/or control of credit distribution to borrowers.

This questionnaire aims at capturing information related to commercial banks credit operations in Tanzania. Specifically to understand systems (channels) of supplying credits with an intention of designing and recommending ways of supplying credits that are more efficient as far as credit transaction costs is concerned under different circumstances (transaction cost determinants). Ultimately to design the best model for credits supply that will assist commercial banks to lower their credit transactions costs and scale up their credit operations to both rural and urban based customers.

MOBILE NO: 0752/0717 34 88 20
EMAIL- hnguvava@yahoo.com

All information captured in this questionnaire will be treated with high confidentiality and used for academic purposes only.

CREDIT DISTRIBUTION CHANNELS (CREDIT GOVERNANCE STRUCTURES)

SECTION A.

I).The following are four (4) commonly used channels of distributing credits to borrowers by commercial banks in Tanzania. Please **tick** where appropriate reflecting frequency of using such a particular channel by your bank and mention a customer category normally receiving credits through such a channel.

1.Highly used 2.Rarely used 3.Don't know 4. Not used at all

Credits distribution channels	Use				Mention Customer category receiving credits, eg, cooperative unions, farmers unions, SMEs, etc
	1	2	3	4	

Credits directly to individual borrowers (Direct channel)					
Credits to profit making intermediary banks(I,e community development banks)					
Credits to profit making intermediary microfinance institutions(I,e SACCOS)					
Credits to non-profit making intermediary(I,e Government institutions, Religious institutions)					

II) Given the credit distribution channels below, Please fill the table that follows.

(1) Commercial banks give credits directly to individual borrowers (Direct channel)
(2) Commercial banks give credits to profit making intermediary banks(I,e community development banks) which ultimately deal with individual borrowers
(3) Commercial banks give credits to profit making intermediary microfinance institutions(I,e SACCOS) which ultimately deal with individual borrowers
(4) Commercial banks give credits to non-profit making intermediary(I,e Government institutions) that ultimately deal with individual borrowers

In the table below, fill the number (eg, 1,2,3 or 4) of the credit distribution channel that most preferred by your bank to service the credit customer categories outlined in the table. If any, give reasons for your credit channel selection

Credit customers category	Credit channel	Reasons (If any)
Registered SMEs		
Community development banks		
Public institutions, eg, Universities, colleges and schools		
Non-banks microfinance institutions, eg, SACCOS		
Individual persons		
Other commercial banks		
Unregistered/Informal Micro businesses		
NGOs, eg, FINCA, PRIDE etc.		
Religious organizations, eg, churches		
Large scale farmers		
Small scale farmers		

III)Below are credits distribution channels commonly used by commercial banks in Tanzania.

(1) Commercial banks give credits directly to individual borrowers (Direct channel)

(2) Commercial banks give credits to profit making intermediary banks(I,e community development banks) which ultimately deal with individual borrowers
(3) Commercial banks give credits to profit making intermediary microfinance institutions(I,e SACCOS) which ultimately deal with individual borrowers
(4) Commercial banks give credits to non-profit making intermediary(I,e Government institutions and religious institutions) that ultimately deal with individual borrowers

When the following circumstances prevail while your bank wants to offer credits to customers (borrowers), which channel will you choose (write number of channel selected against circumstances given in table below).

Circumstances	Channel selected given circumstances prevailed.
Long geographical distance between our bank and potential borrower	
Low expected borrowing frequency (borrowers loyalty not assured	
Low borrowers reputation (status)	
Small credit amount needed by borrower	
Borrower's collateral have low market value	
The borrower is not much trusted by the bank	

IV).Which among these criteria when available, you consider your bank's credit operations efficient? **Tick** where appropriate

1. Most important 2. Important 3. Not sure 4. Less important 5. Least important

Criteria	1	2	3	4	5
High repayment rates					
High returns from credits operations					
Minimum credit operational costs					
Minimum credit transaction costs incurred					
Wider geographical coverage in credit distribution					
Large bank's credit portfolio					
Diversification of credit customers					
Large amount of credit outstanding					
Large number of bank's borrowers					

V)Indicate to what extent the following factors lead to increase in cost of carrying out credit transactions by commercial banks. Indicate your perception level by **ticking** the appropriate scale level in the space provided.
1. Highly leading factor 2.Leading factor 3.I do not know 4.Not leading factor 5.Not at all leading factor

Factors	1	2	3	4	5
Low trust level of bank on borrower					
Poor borrowers reputation					
Remoteness of borrower					
Borrowers without credit collateral or guarantor					
Borrowers with low market value collateral					
Low expected borrowing frequency					
Small credit amount					

BORROWER'S INFORMATION SEARCH COSTS
SECTION B
Please estimate the following costs (per borrower) in relation to the process of searching and screening borrowers by your bank when using the four commonly used credit distribution channels
Credit Distribution Channel

(1) Commercial banks give credits directly to individual borrowers (Direct channel)
(2) Commercial banks give credits to profit making intermediary banks(I,e community development banks) which ultimately deal with individual borrowers
(3) Commercial banks give credits to profit making intermediary microfinance institutions(I,e SACCOS) which ultimately deal with individual borrowers
(4) Commercial banks give credits to non-profit making intermediary(I,e Government institutions and religious institutions) that ultimately deal with individual borrowers

Cost item	Using Credit channel 1	Using Credit channel 2	Using Credit channel 3	Using Credit channel 4
Transport cost to and from the borrower in TSH.				
Average time spent in searching and screening any particular borrower(in days or hours)				
Borrower's local area authority/village fees paid to receive borrower's information, in TSH.				
Average number of meetings/consultations with any particular borrower until credit delivery				
Average cost of facilitating any meeting with any particular borrower until credit				

delivery in TSH				
Average cost paid for Tips and other charges other than those above when searching any particular borrowers information, in TSH				
When Agents find borrowers for your bank. How much in TSH do you pay the agent for any particular borrower brought in.				

CREDIT CONTRACT NEGOTIATION COSTS
SECTION C
Please fill the following table in relation to elements of credit contract negotiation costs (per borrower) against commonly used credit distribution channels by Commercial banks in Tanzania. Refer to four (4) credit distribution channels in section B above.

Cost items	Using Credit Channel 1	Using Credit Channel 2	Using Credit Channel 3	Using Credit Channel 4
State average number of hours/days spent until credit agreement is reached with borrower				
State the usually number of negotiation meetings with borrower until credit agreement is reached				
Estimate average cost incurred(e.g refreshments, Stationery, allowances e.t.c) in TSH by your bank per credit contract negotiation meeting with any particular borrower				
State the usually amount incurred by your bank in TSH, as Tips, Fees, Rents to facilitate any credit negotiation meeting with borrower				
When an agent is used to negotiate credit contract with borrowers, state the usual amount in TSH normally paid by your bank to an Agent for any particular contract.				
State in TSH legal charges (eg, lawyer charges, stamps etc) normally incurred by your bank for any particular credit contract negotiated				

CREDIT CONTRACT MONITORING AND ENFORCEMENT COSTS SECTION D

Please indicate costs incurred by your bank (per borrower) as a result of monitoring and enforcing credit contracts by using commonly used credit distribution channels by Commercial banks in Tanzania. Refer to credit distribution channels (1-4) in section B above

Cost items	Using Credit Channel 1	Using Credit Channel2	Using Credit Channel 3	Using Credit Channel 4
State average number of trips to and from any particular borrower during follow up and monitoring of credits				
State in TSH, the average transport cost for each trip to and from the borrower during credit monitoring				
State average time in HOURS , spent for each trip to and from the borrower during credit monitoring				
State other costs(e.g, Lunch, allowances, stationery, drinks e.t.c) in TSH, for each trip to and from the borrower during credit monitoring				
State the amount of fees or tips for each trip in TSH				
State the costs normally incurred by your bank in measuring viability of each borrower's activity/business, in TSH.				
Please state in TSH average costs normally incurred by your bank when any particular borrower breach credit contract				
In case of breach of credit contract by borrower. How much in TSH does your bank normally incur (eg, Filing charges, lawyer's charges, local government levies e.t.c) to file a case against such borrower				
At time when your bank use third parties eg, commission agents to enforce credit contracts against borrower. How much on average does your bank incur in TSH to pay such a third party for each contract enforced				

Please state any other costs, in relation to monitoring and enforcement of credit contract other than those above in TSH. (cost type)……. …….				

THANK YOU FOR YOUR COOPERATION

Appendix 4:Measurement of Variables

Most of items were quantified into monetary terms, in particular Tanzanian shillings. This includes those measured in kilometers/mileage, and in terms of hours, were converted into shillings, with exception to items which were quantified in attitudinal scale measurements. This approach was adopted from Williamson (2009), on his work on transaction costs analysis.

ITEMS	MEASUREMENT
Distance	Measured in Kilometers or mileages, then quantified into monetary terms or amount of money (Tsh) paid to credit officers as travelling expenses to visit borrowers, under given mileage or Kilometers
Reputation	Social recognition, status and public image of borrowers(attitudinal measurement)
Trust	Past borrowing experiences and repayment tendency ofborrowers (attitudinal measurement)
Loyalty	Measurable through borrowers transaction frequencies, borrowers perception, feeling or recommendations towards the bank (attitudinal measurement)
Time	Measured in hours and quantified into monetary termsTsh through Minimum wage rate per hour under financial institutions in Tanzania
Credit insurance policy	Provisions made (premium) set aside by banks to cover uncertainties of any particular credit contract(Tsh)
Credit/loan amount	Amount of money given (lent) to borrowers(Tsh)
Frustrations	Un ethical/un acceptable borrowers behavior, particular for this case non repayment of credits by borrowers (attitudinal measurement)
Contract drafting charges	Money normally paid to lawyers by CBs for drafting any particular credit contract (Tsh)

Communication charges	Amount of money paid to credit officers to facilitate communication with borrowers during searching of borrowers, negotiation of credit contracts or during or monitoring and enforcement of credit contracts(Tsh)
Meetings facilitation charges	Number of meetings and amount of money used by credit officers to facilitate meetings with borrowers(Tsh) until credit delivery
Lawyer fees	Amount of money normally paid to lawyers as fees for attesting any particular credit contracts (Tsh)
Village government fees	Charges in monetary terms normally paid as contribution to village government offices when seeking borrower's information(Tsh)
Stakeholders fee (bribery)	Tips and rewards required for lawful and legitimate services to be offered, quantified in monetary terms (Tsh)