# DETERMINANTS FOR THE USE OF FINANCIAL SERVICES IN TANZANIA: A STUDY OF BEHAVIOURAL FACTORS

**By**

**Bupe Joachim Mwakyusa**

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# ABSTRACT

This study focuses on exploring the determinants of the use of financial services in Tanzania with respect to the role of household behavioural factors. This is achieved by attempting three interrelated research questions: i) What are the financial experiences of households in Tanzania? ii) What are beliefs held by households in Tanzania about the use of financial services? iii) What are the effects of household behavioural characteristics for intention to use financial services and subsequent usage of financial services? Both quantitative and qualitative research methods are employed to achieve the research objective.

The empirical findings suggest that behavioural factors matter for the use of financial services. Firstly, the examination of household financial experiences on a sample of 30 households through the application of financial diary methodology revealed a variety of household financial experiences that highlight the necessity of financial services to households. Secondly, despite the fact that most households do not use financial services, it is found that households hold positive beliefs about financial services for saving facilities, security, finance, money management and improving economic well-being. Thirdly, structural equations models indicate that attitudes towards financial services, perceived behavioural control and subjective norms significantly impact the intention to use financial services. Perceived behavioural control is observed to prominently influence the use of financial services.

The study offers the following contributions: Firstly, it develops a behavioural conceptual framework that integrates financial and psychological perspectives. This framework facilitates a broader understanding of the determinants for the use of financial services from various perspectives. Secondly, it provides distinct insights into the influence of behavioural characteristics in the use of financial services. This adds to the limited empirical literature about the determinants for the use of financial services specifically the effects of behavioural factors. Based on the findings, implications for financial inclusion initiatives and relevant future research have been identified.

**Key words:** Use of financial services, households behaviour, developing countries, financial literacy

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# DEDICATION

To the loving memory of my father whose inspirations are still cherished by me

To my mother for constant love and prayers

To my husband Joshua Kaduma who has supported me in all my endeavours

To my lovely children Shekinah and Shammah

*Above all,*

*I thank Almighty God for everything. Glory and Honour is to Him forever and ever,*

*Amen.*

# LIST OF ABBREVIATIONS

| | |
|---|---|
| ASCA | Accumulating Savings and Credit Associations |
| BAFIA | Bank Financial Institution Act |
| CFA | Confirmatory Factor Analysis |
| EU | European Union |
| FAS | Financial Services Access |
| FDIC | Federal Deposit Insurance Corporation |
| FSDK | Financial Sector Deepening Kenya |
| FSDT | Financial Sector Deepening Trust |
| GDP | Gross Domestic Product |
| NBS | National Bureau of Statistics |
| NSGRP | National Strategy for Growth and Reducing Poverty |
| OECD | Organisation for Economic Co-operation and Development |
| ROSCAS | Rotating Savings and Credit Association |
| SACCOS | Savings and Credit Co-Operative |
| SEM | Structural Equation Model |
| TCRA | Tanzania Communication Regulatory Agency |
| URT | United Republic of Tanzania |
| USA | United States of America |
| VICOBA | Village Community Banks |

# CHAPTER 1 : INTRODUCTION

## 1.1 Background

The interest in examining the determinants of use of financial services is built on well-established empirical evidence of the positive relationship between finance and growth (see for example, Levine (2004) and Demirgüç-Kunt and Levine (2008). According to the World Savings Bank Institute (2005), broader access to finance is crucial for the creation of conditions necessary for economic growth, poverty alleviation and social wellbeing. The literature indicates that access to finance is among the three sources of growth, the other two being political stability and control of crime (Ayyagari et al., 2008). Furthermore, Ayyagari et al., (2008) document that access to finance is the most robust stimulator of growth among the three. Additionally, Beck and De la Torre (2006) summarise two roles of access to finance. Firstly, broader outreach of financial services enables talented newcomers from disadvantaged groups to be empowered. For instance, use of credit may facilitate growth of capital which will in turn expand production. Secondly, use of financial services can be viewed as a factor that is of the greatest importance to the market economy. Financial development and access thereof facilitate transaction smoothing, saving, capital allocation and risk management which are crucial for the economic and social wellbeing. Furthermore, Beck et al., (2007) highlight the importance of financial development and subsequent use of financial services for poverty eradication. Their study observed a significant drop in the percentage of the population living on less than $1 a day as a result of financial development. Considering the economic status of developing countries, financial development and use of financial services is a potential tool for poverty alleviation and may determine the economic well-being (Beck and Brown, 2010; Bae et al., 2012).

In the 1980s and 1990s, many developing countries initiated financial reforms (Kim and Kenny, 2006). The reforms were expected to improve financial depth and boost the use of formal financial services such as loans, savings, payment services and other related services. However, the degree of access to and use of formal financial services is still very low even after these financial reforms. Worldwide, about half of the adult population is unbanked, and more than 70% of the adult population in developing countries do not use formal financial services (Demirgüç-Kunt and Klapper 2013). Non-use of financial services is not just experienced in developing countries, but is also observed in developed countries albeit at a minimal level. For instance, about 12% of EU adult population do not have a bank account (Fondeville et al., 2010).

There is no single reason behind the lower degree of use of financial services. The common barriers that have been documented include financial illiteracy, low income level, physical infrastructure and barriers related to legal and institutional frameworks. Though there are some barriers to use of financial services that are common to the majority of developing countries, Beck et al., (2007) document variation of barriers to accessing bank services among developing countries. For instance, not having enough money is documented to be the most cited obstacle to not holding a formal bank account in Sub-Saharan Africa. Associated costs for running the formal account are a common barrier in Eastern and Southern Africa (Demirgüç-Kunt and Klapper, 2013). Individuals and households are precluded from using formal financial services due to the requirement of a high minimum opening balance for both savings and current account (Claessens, 2006). Meanwhile in the European zone, Fondeville et al., (2010) found that some households do not possess a bank account due to lack of preference for holding account.

Regarding financial literacy, there are numerous studies suggesting that education and financial literacy may determine the access to financial services. For instance, Johnson and Nino-Zarazua (2007) studied the direct influence of education on usage of financial services in Kenya. This somehow concurs with the findings of Cole et al. (2011) that an education programme aimed at educating financially illiterate individuals stimulates the demand for financial services. On the other hand, it is unclear whether education and financial literacy determine the use of financial services (Xu and Zia, 2012). Wachira and Kihiu (2012) found education to be a weak factor in determining the use of financial services in Kenya. Similarly, Cole el at., (2011) reported a lack of effect of financial literacy programmes on the likelihood of using bank accounts.

Lack of access to financial services has also been reported to contribute to non-use of financial services. Demirgüç-Kunt and Klapper (2013) cite distance from a bank as a greater barrier to access financial services in rural areas. This relates to the proximity of financial services to target users. For instance, Ethiopia has less than one bank branch per 100,000 people; Botswana has one branch per 10,000- square Kilometres while Spain has 96 branches per 100,000 people and 790 branches per 10,000 square kilometres (Beck et al, 2009). In that respect, there is greater access to financial services in Spain than in Botswana and Ethiopia. Greater branch network may lead to greater coverage and expand the use of financial services. On the other hand, the increase in the application of technology in delivering financial services is believed to overcome the problem of physical distance. Prior and Santomá (2010) point out that the increase in the use of mobile phones and other wireless applications linking to financial services stimulates financial access for the unbanked. Demirgüç-Kunt and Klapper (2013) highlight the achievements of mobile money services in Sub-Saharan Africa. They report that 16% of adults in Sub-Saharan Africa use their mobile phones to make bill payments, including sending and receiving money. Half of those adults however, do not use financial services of the banks, and the use of mobile money is still very low at about 5% (Demirgüç-Kunt and Klapper, 2013). Ivatury and Pickens (2006) suggest that the use of mobile phones for access to financial services is linked to the perceptions and beliefs of people. This means that encouraging the use of mobile phones for financial services cannot be the only means of broadening access to financial services to the underserved. Other psychological factors have to be taken into account.

It is disappointing that gender inequality in the use of financial services is being reported despite the worldwide efforts at advancing gender equality. For example, Demirgüç-Kunt and Klapper (2012) report a 6-9% gender gap in the use of formal accounts in developing countries. Surveys and empirical findings indicate more men use financial services than women. Isaac (2014) indicates women are 20% less likely to have a formal account than men. Conversely, Aterido et al., (2011) found no gender effect in explaining the use of financial services by women entrepreneurs. They point out that lower use of financial services might be explained by lower income, lower education, the likelihood of not being employed and the role within the household.

Following the presented background to the study which highlights unresolved issues regarding the determinants for the use of financial services, in the next section, the literature gap and rationale of the study are explicitly discussed.

## 1.2 Rationale for the Research

The literature offers some findings on constraints and determinants of use of financial services. As explained earlier, it is not yet clear what might actually be the major reason behind a lower degree of use of financial services. Although there is limited literature on access to and use of financial services (Honohan, 2008), even the available literature and existing financial access strategies put more emphasis on the supply side of financial services. For instance, financial reforms in the 1970s (Kim and Kenny, 2006) and the ongoing reforms put more emphasis on improving the financial system. The efforts of improving financial access by developing the supply side and the respective studies are not ignored. But in the current study the potential of studying the determinants of household use of financial services and the need for related initiatives are pointed out. This agrees with the argument of Demirgüç-Kunt (2008) that access to financing is not the same as the use of financial services. Individuals and household may have access to financial services, but may not use them. Therefore, the increasing supply of financial services may be worthless if they are not used. Kostov et al., (2012) argue that improving access and use of financial services should not only be concentrated on removing supply side barriers but should also consider demand side factors.

Furthermore, the studies conducted in developing countries on the demand for financial services indicate that the use of financial services is not only the matter of efficient supply of financial services. Some empirical studies on non-use of financial services in developed and developing countries offer findings that not holding a bank account relates to cultural and behavioural factors. Osili and Paulson (2008) for example, document the effect of culture on the use of banking services. Their experiment was conducted on the immigrants to the USA to investigate the effects of their country of origin. Regardless of the fact that the USA has a qualified institutional environment where access to financial services is adequate, they found country of origin (culture) affects the use of financial services. Additionally, Kostov et al., (2012) show the effects of financial perceptions and attitudes on the use of basic bank account in South Africa. Their study was conducted in the context where supply side barriers had been controlled by the introduction of a basic account (Mzansi intervention) enhancing access to all including the underserved. They identified financial perception and attitudes significantly determine the demand for the ‘Mzansi Account’ among low income South Africans. It is possible to conclude that the supply of financial services cannot be the only dimension that determines their use. The use of financial services may be driven by other demand related factors.

Despite the fact that behavioural factors have influence in the decision to use financial services as stated above, less is known in the context of developing countries where there are supply side barriers. The available literature on the effects of behaviour and culture on the use of financial services were focused on countries with high quality financial environment, for example, USA and South Africa (see Osili and Paulson, 2008 and Kostov et al., 2012). Motivated by such studies, this study expands on the previous work to investigate the effects of household behavioural factors in the use of financial services in a setting where supply barriers exist. This challenges whether the initiatives for the improvement of the supply of financial services should continue at the expense of demand constraints. If where there is less or no supply barriers non-use of financial services is reported, what can be drawn from a behavioural perspective for the efforts to enhance use of financial services? Therefore, this study is an extension of previous studies relating to the role of behavioural factors in the use of financial services. However, the understanding of the role of household behavioural factors in the use of financial services goes hand in hand with the understanding of the financial experiences and beliefs held by households regarding the use of financial services.

This research is carried out in Tanzania. The choice of the country is based on the fact that as is with many developing countries, Tanzania adopted financial reforms for enhancing financial development beginning in the early 1990s (see discussion in chapter 4). The reforms were intended to not only improve financial development but also to facilitate use of financial services. Nevertheless, Tanzania records non-use of financial services by the majority of the population. FSDT (2013) reports that out of a total of adult population of around 22m adult population it is about 13.9% them who use financial services. Moreover, Tanzania continues to devise financial policies for increasing access to and use of financial services. That makes Tanzania a suitable setting for scholarly investigations about the determinants for the use of financial services. The details about into the country's financial sector, economy and use of financial services are presented in chapter 4.

## 1.3 Aim and Objectives

The aim of this study is to understand the role of behavioural factors in the use of financial services in Tanzania. The key research questions are;

i. *What are the livelihoods and financial experiences of households in Tanzania?*

This seeks to critically understand financial experiences of households in Tanzania using a financial diary methodology. It intends to highlight households financial experience and financial coping strategies. The understanding of financial experiences will enhance the body of knowledge about financial experiences of households' in relation to the need for financial services. In addition, identification of financial experiences can enable improvement in policy initiatives for increasing the use of financial services. In accordance with this study, Barr et al., (2005) suggest empirical studies to back up behavioural theories by examining household financial behaviour and financial constraints facing them.

ii. *What beliefs are held by households in Tanzania about the use of financial services?*

The objective is to analyse salient household beliefs about the use financial services in Tanzania. Beck et al., (2008) argue that use of financial services could be a matter of willingness. On the other hand the willingness to use financial services could be a result of beliefs and perception about financial services. Ajzen (1991) identified that the formation of behavioural characteristics is associated with the salient beliefs about the behaviour. This study offers qualitative analysis of salient beliefs held by of households about the use of financial services.

iii. *What are the effects of household behavioural characteristics regarding their intention to the use financial services and subsquent actual use of financial services?*

An answer to this research question was sought by examining the effects of households behavioural characteristics regarding their intention to use financial services and subsequent actual use of financial services in Tanzania. It provides an understanding about the role of behavioural factors in the use of financial services. It highlights the relationship between household behavioural characteristics and the use of financial services. The influence of behavioural factors on an intention to use financial services and subsequent effects of actually using these services.

In order to achieve the goal of understanding of the role of behavioural factors in the use of financial services this study builds on the psychological perspective that human decision-making and performance of behaviour relate to prior behavioural constructs. Specifically, the study employs the theory of planned behaviour (TPB) proposed by Ajzen and Madden (1986) and Ajzen (1991). The theory explains that intention to perform behaviour is a major predictor of the actual behaviour. On the other hand, the intention to perform behaviour is the product of attitudes towards behaviour and subjective norms. Performance of behaviour or consumption of goods or services depends on attitudes towards behaviour/object and individual's assumed social pressure. The theory of planned behaviour suggests that the strength of intention in predicting behaviour depends not only on attitudes towards behaviour and subjective norms, but also availability of resources and opportunities (Ajzen, 1991). An interesting point about TPB is that, it has a clear postulation of behavioural constructs and is flexible. Ajzen (1991) proposes that TPB is open for adding predictors. However, the decision to add predictors should be based on the significance of additional constructs in predicting behavioural intention and actual behaviour. Further details about theoretical and conceptual development are presented in Chapter 3.

## 1.4 Thesis Outline

This thesis contains nine chapters including the current chapter as illustrated in figure 1.1. Chapter 2 provides the literature review and empirical studies that are relevant for studying the use of financial services. These include the literature of finance for growth and existing literature about the determinants of access to and use of financial services. The purpose is to untangle what is currently known and highlight what are unresolved issues about the determinants of usage of financial services. This facilitated the identification of the research gap. The theoretical framework of analysis of the established research gap is discussed in Chapter 3.

Chapter 3 examines the theory of reasoned action (TRA) and the theory of planned behaviour (TPB) for the purpose of identifying and justifying the theoretical approach undertaken in the current study. This facilitated to the designing of the theoretical approach in order to understanding the role of behavioural factors in the use of financial services.

Chapter 4 discusses the status of access to and use of financial services in Tanzania. The overview of economic status has been presented to highlight the importance of financial services. Also the chapter discusses the evolution of the financial sector, financial reforms and use of financial services. Additionally, the significance of undertaking research in this particular setting is pointed out.

Chapter 5 describes the methodology which entails the research design and process used to achieve the aim of the present study. This includes aspects such data sources, sample selection, data analysis techniques and the whole research process.

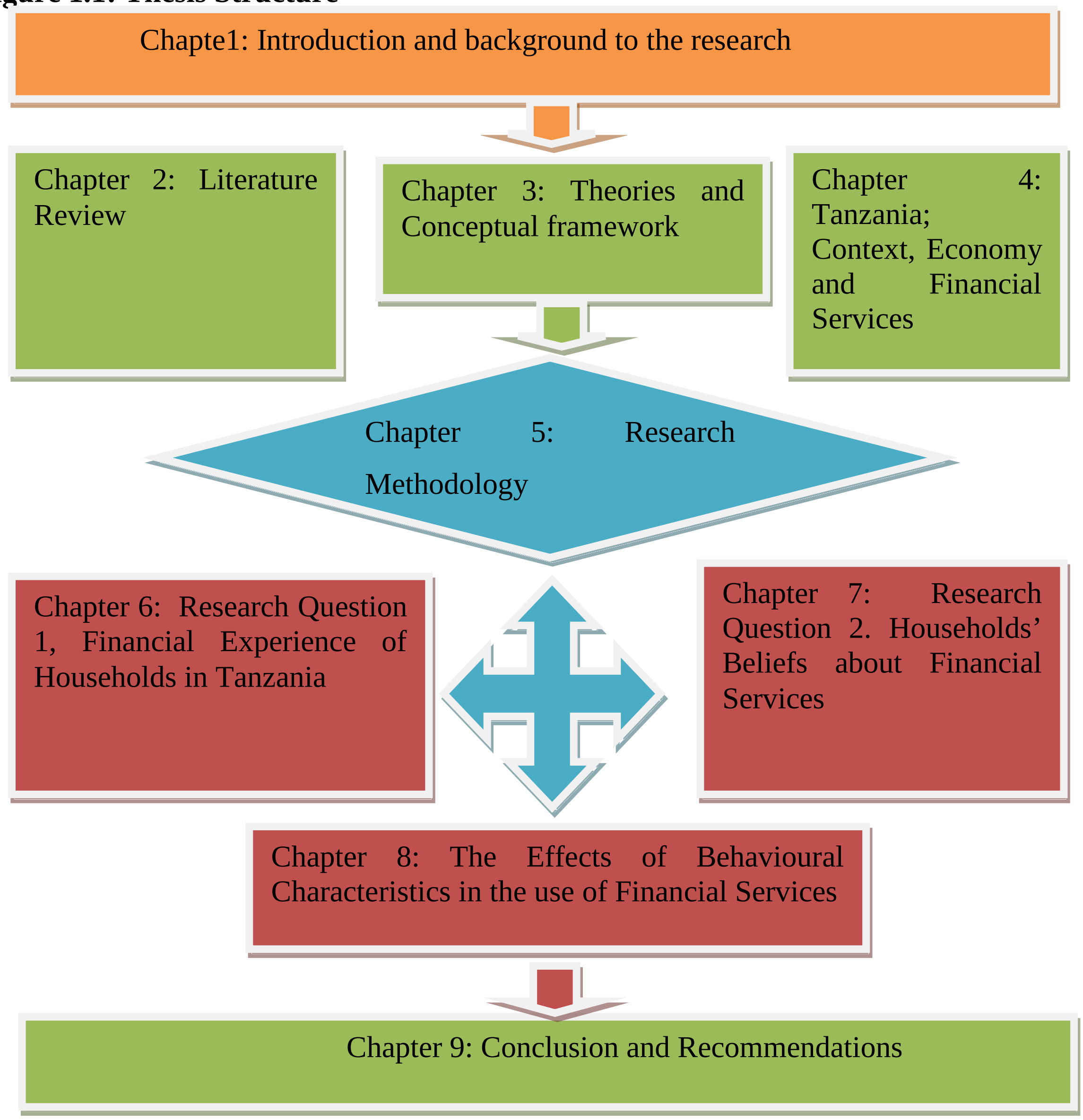
Chapters 6, 7 and 8, are empirical chapters attempting to investigate the stipulated research questions. Chapter 6 relates to the first research question. It critically analyses and discusses the findings about household livelihood and financial experience facilitating the investigation of the second research question. It significantly underscores in detail the livelihood and financial experience of households rather than a broader view. This is followed by the analysis of household beliefs about the use of financial services presented in chapter 7.

Chapter 7 discusses the second research question. It investigates the households' beliefs with regard to their financial perceptions concerning the use of financial services, social pressures in the decision to use them and the perceived factors that facilitate or inhibit the use these services. The chapter is significant for providing insight into the beliefs of households in Tanzania regarding the use of financial services, and alternative sources of financial services used by them.  Additionally, the findings from this chapter provide useful information for answering the third research question.

Chapter 8 attempts to answer the third research question. It presents the findings from data analysis examining the effects of behavioural factors for households' use of financial services. This follows the findings regarding households' beliefs about financial services presented in chapter 7. The information about variable construction, the process of data analysis, discussion and interpretation of the findings facilitate the answering of the third research question.

Chapter 9 synthesises the findings of the study and offers some contributions to the body of knowledge, policy implications and suggests areas for future research.

**Figure 1.1: Thesis Structure**



# CHAPTER 2 : LITERATURE REVIEW

### 2.1 Introduction

The purpose of this chapter is to establish the significance of the study. Thus, it reviews and discusses the relevant literature for understanding the context in which this study was carried out. Moreover, it untangles what is currently known and highlights what are unanswered issues on the determinants of use to financial services. Sections 2.2 and 2.3 provide the definition of financial services and critically discuss the theoretical background of the importance of financial services. Section 2.4 discusses access to and use of financial services as a channel through which financial development stimulates growth. This includes the analysis of how crucial is the usage of financial services in relation to income inequality and poverty in the world. The empirical literature relating to the determinants of use of financial services and barriers are discussed in sections 2.6 and 2.7. These sections highlight the state of the access to, use of financial services, and identify the gap in the body of literature. Section 2.8 establishes a place for new contributions and concludes the chapter.

## 2.2 Theories on the Use of Financial Services

### 2.2.1 Definition of Financial Services

In this study the term 'financial services' refers to formal financial services offered by formal financial institutions licensed and regulated by the financial regulatory authority of the country. The definition includes commercial banks, financial institutions other than commercial banks including microfinance institutions (MFIs) licenced and supervised by the financial regulatory authority. This concurs with the context of formal financial services as discussed by Camara et al., (2014); Aryeetey et al., (1997); Demirgüç-Kunt and Klapper (2013). The decision about the definition is based on several grounds. The first consideration is the nature of the research problem being studied (see discussion about the potential of financial services in Chapter 1 and this chapter). Secondly, there are other forms of financial services such as informal financial services that are recognised and appreciated for supporting financial lives of households who do not have access to formal financial services including the poor (Zeller and

Meyer, 2002; Rutherford, 2002). The researcher challenges the strategies of improving the use of formal financial services at the expense of low degree of usage. Therefore, the term financial service/s refers to formal financial services; otherwise, the term informal financial service/s is used. The coverage of services includes general financial services such as saving, credit, payment, investment, insurance and pension services. The detailed discussion about formal, semi-formal and informal financial services and their differences are presented in the next section.

### 2.2.2 Formal, Semi-Formal and Informal Financial Services

Financial services reflect the role of finance in the economy including transaction management, consumption smoothing, capital allocation and risk management (see for example, Beck, 2011; Levine, 2005). The discussion about the role of the financial system in the economy is in section 2.3. Due to the nature and the role of the financial system, the scope of financial services is broad as a result the distinction about financial institutions is not straightforward. For instance, providers of financial services can be categorized as formal and informal (see for example, Camara et al., 2014; Demirgüç-Kunt and Klapper, 2013; Finscope Rwanda, 2008). Meanwhile other authors identify financial services scope into three categories such as, formal, semi-formal and informal (FSDT, 2013; Pham and Lensink, 2008; Kashuliza et al., 1998; Chipeta and Mkadawile, 1996). Steel (2006) defines formal banking institutions, specialized non-bank financial institutions, semiformal and informal. Although Steel (2006) segments specialized non-bank financial institutions from banks, both are licensed and regulated by the financial regulatory of the country. Semi-formal financial institutions are subject to regulations other than that of the central bank/financial regulatory authority, whereas informal financial services providers are not legally registered. Table 2.1 presents the segmentation of financial system including the respective institutions, services and clients served.

**Table 2.1 The Segments of Financial System**

| Segments | Definition | Institutions | Services | Clients |
|---|---|---|---|---|
| **Formal Financial institutions** | Licensed by Financial regulatory authority of the country | Commercial Banks, Non-bank financial institutions, Savings banks, development banks, Microfinance Banks | Formal financial services<br><br>May include micro financial services | Government, Large businesses,<br><br>Small businesses<br><br>Individuals<br><br>Groups |
| **Semiformal Financial Institutions** | Legally registered with another regulatory authority other than the financial regulatory authority of the country | Non-Government Organizations, Registered Cooperative associations e.g., Savings and Credit Cooperative Organizations (SACCOs). | Semiformal financial services<br><br>Micro financial services | Small Businesses,<br><br>Individuals,<br><br>Groups |
| **Informal Financial services** | No legal registration.<br><br>Informal Group Arrangements | Savings clubs e.g., ROSCAs, Moneylenders, pawnshops, Friends and relatives | Informal financial services<br><br>Micro-savings and credits | Individuals,<br><br>Members of association/ group |

*Source: Author summary from reviewed literature*

**Formal financial services;** as elucidated earlier, are services offered by formal financial institutions governed by the financial regulatory authority of the country(see for example Camara et al., 2014; Aryeetey et al., 1997). These include private or public banks and non-bank financial institutions that engage in deposit taking, credit issue and other financial services. Their establishment is based on meeting capital requirements and other regulatory supervision and monitoring for ensuring sound financial system. They face stringent regulation compared to other categories of financial sector due to their potential role in the economy as well as the risk to the economy in event of bank run or failure. For instance, the industrialisation of England, Japan Netherlands and USA was highly supported by the formal financial sector (Rousseau (2002). On the other hand, the Asian financial crisis in 1997 and the global financial crisis in 2007-2008 adversely affected the economy in Asia and around the world. It is because of the nature of operations and their linkage to the economy that strict regulations, supervision and monitoring are necessitated. On the other hand, they have the advantage of being capable of offering a wide range of financial services, because of their capital and technical systems (Helms, 2006). As discussed in chapter one and elsewhere in this thesis, the usage of formal financial services is not satisfactory (see for example Demirgüç-Kunt et al., 2013).

**Informal financial services** refer to financial services offered and acquired from the informal financial sector. Soyibo (1997) refers to informal financial services as activities that take place outside formal financial institutions. The term informal financial institutions refer to financial organisations that do not hold any legal registration (Islam, 2016; Helms, 2006). Although the informal sector lacks legal registration or regulation, their activities are supposed to be legal (Soyibo, 1997). As the name informal suggests, being unregulated involves a wide variety of activities. These include savings clubs, community based saving methods, money lenders, pawnshops, loans and savings by family and relatives as well as other related financing sources that lack formal registration (Christensen, 1993). The informal financial sector either mobilises savings or lends (Aryeetey, 2008; Christensen, 1993). For instance rotating saving and credit association ROSCAs (locally named as ‘merry-go-round’ in Kenya and Tanzania) is a saving strategy that involves a group of people who agree each to pay a certain amount of money for a specific day or date to a member of group in a rotation manner. Once the round has passed to all members till the last member the process start afresh. Meanwhile, moneylenders offer credit but do not mobile savings. Despite that, in recent times some have begun to do both accepting deposit and lending (Aryeetey, 2008). On the other hand, some informal institutions undertake both mobilisation of savings and lending which is an improved version of the existing rotating credit and savings associations. These include for example Village Savings and Loans Associations(VLSAs) introduced by CARE International as a method for facilitating access to financial services in villages and rural areas. They are similar to ROSCAS except that, they are operated by group agreed bylaws, they charge interest on loans for growing group funds, and they seek and receive technical support to manage the association. It is important to note that, despite the enumerated features VLSAs and other forms of informal financial institutions, the operations of the groups/ associations are not uniform. As they refer to informal financial institutions, the associations have different operations based on what would be suitable to them. For example, an association may decide to charge interest and share profit after a certain period, another association may charge interest just for growth of association. Similarly, the associations are recognised by different names in different countries. For example, they are known as Village Community Banks (VICOBA) in Tanzania, Mata Masu Dubara (MMD) in Niger. Considering the problem of access to formal financial services in developing countries (Steel et al., 1997; Beck et al., 2007; Demirgüç-Kunt et al., 2013), the informal financial institutions have been the main source of financing strategy used by individuals and households including the poor (Schreiner, 2001; Aryeetey et al., 1997; Morduch, 1999). Individuals or households involve themselves in different family and community initiated strategies to meet the demand for savings and credit that potentially provides financial safety net and smoothing consumption (Aryeetey, 1997).

**Semi-formal financial services** refer to services offered by institutions that are governed by other regulatory bodies other than the country's financial regulatory authority. Semi-formal financial institutions include Non-Government Organisations and registered cooperative member based organisations offering microfinance services. Some examples of these institutions are Credit Unions, Savings and Credit Cooperative associations and related Microfinance Institutions (MFIs). Not all microfinance institutions are semi-formal. Some MFIs operate as regulated formal financial institutions. For instance in Tanzania, the establishment of Microfinance Regulatory Policy 2000 and the Banking and Financial Institutions Act 2006 licenses MFIs that meet minimum capital and other requirements to offer formal services. Similarly, Helms (2006) points out that some larger regulated microfinance organisations, for instance NGOs in Bangladesh that serve millions of clients are considered to offer fairly formal services. The semi-formal financial institutions, including MFIs, are recognised for the crucial role they play in facilitating access to financial services for people, including the poor, who lack access to formal financial services (Steel et al., 1997; Zeller and Meyer, 2002). Despite its potential, the semi-formal finance is facing several limitations. Unlike the majority of formal financial institutions, they offer very small sized loans, and are based on joint liability lending. This reflects both the financial capacity of the institutions and characteristics of the community they serve (Christensen, 1993).

As per the above discussion, the semi-formal and informal financial institutions are recognized as important tools for alleviating poverty. Unlike the formal financial sector, both semi-formal and informal financial institutions offer financial services at the micro level. As mentioned earlier, they are limited by capital and regulatory requirements so they offer saving and credit facilities at small size. On the other hand, regardless of the institutional registration, it is complex to distinguish between semi-formal and informal financial services. They all offer micro financial services and serve people, including the poor, who lack access to formal financial services (Banerjee et al., 2013; Zeller and Meyer, 2002). Unlike formal financial services, they are characterised by easy access, flexibility, affordability and being able to correspond to the financial experience of low-income people; also they are simple access and use (Morduch, 1999). Otherwise, the emergence of the semi-formal financial sector relates to the increase of the importance of MFIs. These should be distinguished from informal financial institutions by registration. This would enhance outreach and efficiency in provision of financial services that could be limited from informal finance (for discussion see World Bank, Battilana and Dorado 2010; Gu´erin et al., 2010; Drake and Rhyne, 2002).

On the other hand, following the evidence from MFIs that poor people are capable of engaging in financial services (Littlefield et al., 2003; Rutherford, 2002) in the ongoing financial reforms, formal financial institutions are encouraged to provide microfinance services. With regard to this, some formal banks are engaged in microfinance services, for example BancoSol in Bolivia, Akiba commercial Bank in Tanzania. This does not mean that formal financial institutions are changing to become semi-formal and informal. It is all about broadening access to financial services to reach the underserved. Alternatively, MFIs meeting formal regulatory requirements are transformed from semi-formal to formal and from informal to semi-formal. Examples of MFIs that have been transformed to formal include FINCA Tanzania. For further discussion about formal, semi-formal and formal financial services see Aryeetey (2008).

Therefore, the financial sector is segmented based on the establishment and regulation of the financial sector of a specific country. On the other hand, though there are differences between financial services offered between segments, the pressure of increasing usage of financial services to all (i.e., including the underserved) and the integration of services is considered to be important (Pagura and Kirsten, 2006; Aryeetey, 1992; Aryeetey et al. 1997).

While microfinance services are believed to offer an important tool for poverty alleviation, there are empirical evidences indicating a shortfall to meet the expectations (for discussion see for example Banerjee et al., 2013; Dichter and Harper, 2007; Hulmes, 2000). In the current study, the examination of the determinants for the use of financial services (specifically formal financial services) by studying the behavioural influence is relative to their significance to the financial lives of households and economy in general (World Bank Saving Institute, 2005; Demirgüç-Kunt and Levine, 2005). As stated earlier, examining such behavioural influence requires the understanding of household financial experiences and their beliefs about financial services. To understand household financial experiences in Tanzania like other developing countries, household engagement in the semi-formal and informal financial services are observed (see chapter 6).

### 2.2.3 An Overview to Theories of Finance

There is a well-established literature on the importance of finance for economic growth. This has historically emerged from the work of various researchers. For example, Schumpeter in the 1910s, Goldsmith in the 1960s and MacKinnon and Shaw in the 1970s argued that there is a positive correlation between finance and growth. Based on their work, evidence of the role of finance for growth has been documented (King and Levine, 1993; Levine, 1998; Arestis et al., 2001; Levine, 2004; Levine, 2005; Demirgüç-Kunt, 2008). King and Levine (1993) report a strong relationship between financial development and economic growth. The financial development indicators used in their studies were found to have positive impacts on growth. De Gregorio and Guidotti (1995) also confirm the long standing linkage between finance and growth. They indicate that financial development improves economic performance. Efficiency of the country’s economy may largely be stimulated by financial development.

The literature further indicates that the role of financial development is crucial for growth regardless of whether it is market based or bank based. Levine (1999) points out that it is the function of the financial system that matter for economic growth. The contribution of financial development to the economy is portrayed by the potential functions of the financial system. For example, in well-developed countries such as the USA and the United Kingdom the financial sector is dominated by financial markets. In Germany and Japan, it is bank based, but all are developed countries and their financial system has significant impact on growth. This is confirmed by the role of finance in their industrialisation. Rousseau (2002) argues that the industrialisation of England, Netherlands, the USA and Japan was highly supported by financial revolution in these countries. Banks and financial markets accelerate investment and commercial activities through their functions of information dissemination, savings accumulation, capital allocation and transaction smoothing.

Furthermore, there is evidence of the positive impact of financial development in developing countries. The investigation by Christopoulos and Tsionas (2004) on the long run connection between financial development and economic growth in 10 developing countries confirms the hypothesis of the association between finance and growth in developing countries. Considering the state of economy in these countries, development of a well-functioning system is very important for their economic well-being. Estrada et al., (2010) studied 125 developing countries; they confirmed that financial development is crucial for sustainable economic growth in them.

On the other hand, there are still some controversies on the causality between financial development and economic growth. The debate is on what causes what. Does financial development lead to economic growth or does growth lead to financial development? Some literature indicates a bi-directional relationship while others indicate a unidirectional one in which economic growth is the stimulant of financial development. Robinson (1952) strongly disagrees with the emphasis being put on the paramount importance of financial development for growth. He argues that financial development simply follows economic growth. Meanwhile, Patrick (1966) discusses the causality relationship between finance and growth. Building on the seminal work of Patrick (1966), which documents the bi-directional relationship between financial development and economic growth, various studies have been conducted. Demetriades and Hussein (1996) employed time series methods in testing whether financial development leads to growth. Their findings support the contention of the bi-directional relationship between finance and growth. Chimobi (2010) examined the causality between financial development, economic growth and trade openness in Nigeria. They found mutual causation between financial development and economic growth. In addition, Akinlo and Egbetunde (2010) investigated the causal association between financial development and economic growth in ten Sub-Saharan African countries, not including Tanzania. They report mixed results. Financial development causes economic growth in four countries, economic growth facilitates financial development in one country and the other four are reported to have bi-directional causation. Lucas (1988) writes that financial development and economic growth has been ‘overstressed’ in the economic literature. They imply that there may be other factors which might play a role in economic growth, and that financial development can be stimulated by economic growth.

Although the debate on the causality between finance and growth has not yet been resolved, the impacts of financial development on economic growth, evidenced by empirical investigations, strongly emphasise the importance of financial development for growth. The current study puts emphasis on the importance of use of financial services for individuals’ and households’ economic well-being. Whether the relationship between financial development and economic growth is unidirectional or bi-directional, the role of finance for growth cannot be ignored. It can be noted that when financial development leads to economic improvement and improvement in macroeconomic variables, such as economic stability (Rojas-Suárez and Gonzales, 2010), it may enhance economic well-being. In all cases, the end product is economic well-being. Financial developments through the use of financial services are central for economic growth. The benefits of financial development for growth can be achieved when economic agents use financial services. The importance of using financial services is discussed in next section.

## 2.3 The Role of Financial Development

Financial systems perform important roles for economic development and all-around the wellbeing of economic agents. Their inception may be considered to be a major solution for market frictions. Beck (2011) points out that the core functions of financial institutions are related to resolving the problems of symmetric information, risk of illiquidity and default. Financial institutions facilitate dissemination of information related to savings, sources of funding and pricing of financial services. Greenwood et al., (2010) state that information production is very important for channelling funds from lenders to borrowers. Unlike barter trade, where the exchange would require pursuing for counterparty to exchange goods, financial systems intermediate and disseminate information about finance. Without financial systems, looking for lenders and borrowers may be considered to be costly and time consuming. In other words, having financial systems in place enables economic agents to acquire necessary financial information. This, in turn, alleviates costs that could be incurred by seeking information and transacting processes. Financial institutions are important as they disseminate financial information, facilitate risk management, savings mobilisation, resource allocation and offer exchange facilities (Levine, 2005).

### 2.3.1 Information Dissemination, Savings and Capital Allocation

Financial institutions facilitate the flow of financial information between lenders and borrowers. The need for liquidity by borrowers and the need for investment and security by lenders could have been difficult problem in the absence of financial institutions. As argued by Levine (2005), individual savers may lack the ability to collect and process information regarding the safety of their investments. The need for safety (security and risk management) by lenders is being met by financial institutions through the acceptance of deposits and offering of savings mechanisms. Economic agents are able to keep their money in financial institutions, thereby being sure of the security of their funds, and earning some return. They do not have to think of how the funds are being channelled to borrowers, but they are informed on where they can deposit their savings. Beck (2011) identifies that financial institutions accumulate savings from a large number of individuals with differing liquidity needs, hence overcome liquidity risks and offer higher returns. As explained earlier, searching for a lender who can match their need could have been a complicated matter. The presence of financial institutions is believed to allow them to access funds, meeting their liquidity needs.

In addition, financial institutions play an important role of mobilisation and allocation of resources in the economy. They collect funds from savers and channel them to profitable investments. The pooling of funds from deposits enhances capital which would not be possible by self-finance. Channelling funds to productive investments stimulates economic growth and wellbeing in the society. It is clear that self-financing limits the growth of investment. For instance in manufacturing projects; infrastructure and technological investment may lag behind in the absence of financing. Levine (2005) argues that, in the absence of financial institutions, savers could have been reluctant to invest in activities due to lack of sufficient information, this could in turn inhibit the flow of capital to valuable use.

### 2.3.2 Risk Management

Considering that the world is full of uncertainties about the future, the role of finance for risk management cannot go unmentioned. Vulnerabilities about the future range from operational to financial. They affect individuals, households, firms, countries and economic development in general. The operation of financial intermediaries, through pooling of funds from many different savers and channelling them, facilitates the reallocation and transformation of risk. Financial intermediaries such as banks, mutual funds and securities may smooth the progress of trading, hedging and pool up risks with the implication for resource allocation and growth (Levine, 2005).

Levine (2005) discusses three categories of how financial institutions play the role of risk management. These three categories are; cross section risk diversification, intertemporal risk sharing and liquidity risk. He argues that cross section diversification of risk is related to the traditional theory of finance, whereby financial institutions provide vehicles for trading, pooling and diversifying of risks associated with individual projects, firms, industries and countries. In this case, the role of financial institutions and diversification of risk may affect the long term economic growth by altering resource allocation and savings rates. This relates to the stylised fact of risk aversion, particularly at lower income levels. Financial institutions use risk management tools to meet the need of both savers and investors, thus fostering the sharing of risk among individuals. On the other hand, intertemporal risk refers to the risks that are non-diversifiable at a given point of time and cannot be averaged to reduce their impact on individual welfare (Allen and Gale, 1997). According to Levine (2005), financial intermediaries facilitate intertemporal risk smoothing by investing in the long term; offering lower returns in boom times but higher in slack times.

As outlined earlier, the third category of risk management by financial institutions is liquidity risk. This relates to the cost and speed with which economic agents can convert financial assets into purchasing at an agreed price (Levine, 2005). It arises because of uncertainties associated with converting assets into a medium of exchange (Levine, 2005). For instance, savers (lenders) would demand liquidity; they can lend their money for a short time. Meanwhile, high return projects by borrowers require long term funding. In the absence of financial institutions, both parties would fall in liquidity problems. Moreover, lack of long term funding for higher return projects affects the expansion and growth of investments. Financial institutions play the role of managing liquidity risk by handling financing information for agents (see section 2.3.1). Despite the differing liquidity needs of agents, financial institutions are capable of meeting such needs through maturity and liquidity transformation of financial instruments (See Cetorelli et al., 2012; Mayer and Vives, 1995; Douglas et al., 1983 for discussion). In the presence of financial institutions and markets, savers can hold liquid assets; for example demand deposits, bonds and equity, and sell them when they need. Similarly, the demand for long-term investment is supported by purchasing financial instruments.

### 2.3.3 Transaction Smoothing

Facilitating of exchange is another role played by finance. In an economy where exchange of goods and services is not enhanced, there could be slow development. According to Levine (2005), financial intermediation enhances arrangements that promote specialization, technological innovation and growth by lowering transaction costs. Economic agents are able to exchange goods and services through money which is circulated in the economy by financial intermediation. For instance, use of demand deposits can be considered one of the ways financial intermediaries offer a medium of exchange (Gorton and Winton, 2003). The demand deposits offered in various forms, such as cheques and withdrawals on demand, provide means of payment for goods and services in such a way that they smooth consumption in the economy. In addition, financial intermediaries smooth the consumption of households through the availability of deposit and credit services. These services offer opportunities for households to save, and offer credit facilities which smooth social and investment activities. The future consumption of households can be made possible by making savings today, besides he present demand can be enhanced by borrowing. Financial intermediaries are able to facilitate these through the mobilisation of deposits with different maturity dates from lenders and channelling them to borrowers. Although individuals and households can make their savings in the form of in-kind saving (for example livestock, jewellery), such savings bear the risk that they are not readily able to be converted into cash. Saving in the form of cash at home also bears risk of loss. Unlike the in-kind saving, financial intermediaries offer saving facilities directly in cash which are secure and earn interest.

## 2.4 Financial Development and Use of Financial Services

Financial development refers to the development of the financial system that comprises a suitable environment for financing the economy. This consists of a well laid financial structure, legal environment and other institutional infrastructure. However, the benefits of financial development can be manifested through broader access to and usage of financial services. When individuals or firms use financial services, the benefits of financial development can be achieved. It is the use of financial services that stimulates the individual's consumption smoothing as well as business start-ups and growth. The use of financial services enables economic growth and general well-being. Beck et al., (2008) argue that improving quality and efficiency in provision of financial services without broadening access is not sufficient. This is because lack of broader access to financial services may leave a large segment of the population underserved. Therefore, the full potential of financial development can be achieved when there is broader access to, and subsequent use of, financial services. One could expect that financial development and broader access to financial services are related to each other. If there is a well-developed financial system without use of financial services, such a system may be considered to be ineffective. Claessens and Perotti (2007) identify that even if the financial depth is considered to stimulate economic growth; where there are few households who have financial access, the quality of the growth will be very low. Thus, financial development can be effective if it facilitates broader usage. It is expected that where there is improvement in the financial system, access to finance will be easier and there will broader usage of financial services. Beck et al., (2008) summarise the empirical evidence of the contribution of financial development to economic growth. Increased use of financial services is believed to provide opportunities for growth for entrepreneurs, reduce income inequality and poverty. In other words, non-use of financial services impedes the opportunity of growth for entrepreneurs, making them rely on self-finance which is less efficient.

### 2.4.1 Use of Financial Services, Income Distribution and Poverty

In the previous discussion, access to and use of financial services has been demonstrated to play various roles in the economy and social wellbeing. Although there is still debate about the relationship between access to finance and income inequality (Kim and Lin, 2011; Clarke et al., 2006; Greenwood and Jovanovic, 1990), some empirical evidence indicates a linear relationship between financial development and income inequality. Considering the role of finance in reduction of information asymmetry and transaction costs problems (see discussion in section 2.3), it is believed access to finance may provide better income opportunities. Under perfect information, market participation increases allowing for better allocation of resources. As suggested by Beck et al., (2008) lack of access to finance is one of the potential reasons for long standing income inequality in the world and slow economic growth. When there is lack of access to finance, individuals and businesses lack investment opportunities and are disadvantaged. Galor and Zeira (1993) state that lack of broader access and credit constraints may cause the failure of poor households or entrepreneurs to finance high return investments. This may lead to limited growth, and stimulate the increase of inequality. Similarly, reduction of income enequality can be facilitated by broader access, whereby equal opportunities to access finance will help to both rich and poor. Where there is lack of access to finance, the accumulation of savings by the poor will be smaller and slower compared to rich people. This, in turn, will lead to a big gap between the rich and the poor. Meanwhile, Beck et al., (2007) discuss two ways in which financial development affects the distribution of income. These channels include

i) the implication of financial development on growth ii) the implication of financial development in reduction of income inequality through income distribution.

Financial development affects income distribution through its potential role in providing information and alleviating transaction costs. Beck et al., (2007) argue that in the absence of a financial system, financial information imperfections and transaction costs could inhibit growth and produce income inequality. On the other hand, removal of credit constraints such as demand for collateral and establishment of credit history of the poor may benefit the poor. Meanwhile, financial information constraints intensify income inequality as they hinder allocation of capital to the poor who might be talented and have foreseeable productive investment. Beck et al., (2007) investigated the effects of access to finance on poverty and income distribution. They document that access to finance has a positive impact on poverty and it creates faster income growth. Their findings concur with other findings such as (Beck et al., 2004; Clarke et al., 2003) that greater access to finance promotes income distribution to the extent of reducing income inequality and facilitating poverty reduction. Although it is not yet clear as to whether the benefits of access to finance can be equally shared by the population (Kim and Lin, 2011; Greenwood and Jovanovic, 1990), it is empirically accepted that to some extent financial development through access to finance reduces income inequality and poverty. Fole et al., (2006) indicate that access to finance enhances the possibility for the poor to escape the poverty trap, which is connected to liquidity constraints and financial shocks. This has also been confirmed by various studies. For example, the Institute of Policy Analysis and Research in Southern Africa documents that the improvement in access to and use of financial services led to significant poverty alleviation in rural Namibia (Kibua, 2007). In addition, Bae et al., (2012) examined the impact of access to finance using US state level data. They found positive effects of access to finance on reducing income inequality and poverty.

The empirical results on the importance of access to finance for reduction of income inequality can be considered in two main categories. One category provides evidence of the inverted U-shaped relationship between finance and income inequality (Kim and Lin, 2011; Greenwood and Jovanovic, 1990). Greenwood and Jovanovic (1990) document an inverted U-shaped relationship between financial development and income inequality, whereby income inequality rises as the financial sector develops but later declines as more people gain access to the system. This suggests the impacts of financial development on income inequality depends on the level of development. In other words, financial development offers positive impacts at the higher level of financial development. However, in the lower level of development of the financial sector, there would be an increase in income inequality since it is assumed that higher income individuals would have more access than lower income individuals. The income inequality may decrease when low income individuals have access to finance and the impact of increase in their income can be realised. Similarly, Kim and Lin (2011) indicate the potential of finance development for reducing income inequality can be experienced if the country has reached the threshold of financial development; otherwise it is detrimental for income distribution. Thus, Kim and Lin (2011) argue that a minimum financial development is a necessity for facilitating reduction in income inequality. The second category is that there are empirical evidences that indicate a linear relationship between financial development and income inequality (Mookerje and Kalipioni, 2011; Beck et al., 2007; Clarke et al., 2006). Although there is still debate on how financial development reduces income inequality regarding the two hypotheses (the inverted U-shaped hypothesis and linear relationship), it is argued that broader access to finance enhances income distribution. This is due to the fact that the empirical evidence (on both hypotheses), whether on the inverted U-shaped relationship (where inequality increases at the early stage of financial development and decreases at the later stage of financial development) or the linear relationship (where financial development is negatively related with income distribution), both empirical evidences emphasise on the role of access to finance on reduction of income inequality and poverty. In both perspectives, broader access to financial services for all, that is both poor and rich, appears to be crucial for income distribution. It is a challenge to policy makers and the financial development strategies to facilitate access to finance, even to the marginalised. On the other hand this is reflected by the efforts of increasing access through various financial strategies, such as financial reforms and the ongoing financial inclusion strategies at individual country levels and worldwide.

Nevertheless, it is important to note that there other strategies that are crucial for reduction of income inequality and poverty. This includes the promotion of social factors and economic sectors that are significant  for supporting the lifes of individuals and households from the local level to the international level (see for example Lwasa et al., 2014; Christiaensen, 2007; Thorpe et al., 2004; Nayaran, 2002; Rankin, 2002)

## 2.5 Households and Demand for Financial Services

Considering the potential of financial development for growth, and the benefits of access to and use of financial services for economic and social wellbeing, it is important to discuss the demand for financial services by households. As explained earlier, access to finance is important for all economic agents. In this section the demand for financial services by households is discussed.

### 2.5.1 Understanding the Context of Households

A household is complex to define but can be easily understood by common sense. For instance, by social experience one can define a household as a group of two or more people living together, sharing food, other basics for living and general life activities. In the economy, the household is an economic unit, meaning that it is engaged in production and consumption. Usher et al., (2003) define households as a social economic unit. This means the household as an economic unit can be treated as a unit of production and consumption. Unlike businesses whose production and consumption are geared to maximisation of profit and accumulation of wealth, the production in the household unit focuses on minimisation of costs for the sake of maximisation of utility (Usher et al., 2003). This study defines 'household' as a unit consisting of one or more related members living together, engaged in production and consumption meeting the needs of their daily life.

### 2.5.2 Household Demand for Financial Services

The benefits of access to finance are of value to all economic units such as individuals, households and businesses. One could argue that the benefits of finance cover every aspect of life in the modern economy. The linkage can be explained by the role of money in the economy (Papademos and Stark, 2010). From the demand of basics such as food, shelter and clothing, money plays an important role in meeting such demands. Additionally, in order to be healthy, get better education and general wellbeing, money plays a role. Additionally, money is needed for growth of enterprises, industries and the economy at large. One can question how basic human needs and welfare are linked to access to finance? Unlike the age of barter trade, where commodities were exchanged for other commodities and the system had many inconveniences (such as searching for a partner to match need which was very inefficient and limited); the introduction of money has eliminated the disadvantages of barter trade in the economy. The exchange of goods and services has been facilitated by the use of money. Although food and other goods may be produced by oneself, it is not possible to have all kinds of food being produced by one person. In other words, it is not possible to be self-sufficient in every aspect of life without money in the modern economy. There are, of course, (a very few societies which are still primitive e.g. Australian Aboriginal, Kalahari Bushmen (for definition of the term primitive communities in the context of the current discussion, see Hallpike (1992) who summarizes the concepts by Forde (1956)). The fulfilment of needs is dependent on other sources. In cases where you need to get things from other sources, money may be required for efficient exchange (purchase) of goods and services. By this logic, the demand of money in the modern economy is associated with the need of access to finance. The link is based on the role of access to finance to smooth transactions of goods and services (see section 2.3). Beck (2011) argues that financial systems facilitate efficient exchange of goods and services through payment services. Access to finance facilitates savings, investments, credit, risk management, cash management (money management) and payment for goods and services.

It can be argued that, in the modern economy, access to finance and use of financial services by households cannot be overemphasised. As defined earlier, households are engaged in production and consumption. In both aspects, financial development and the use of financial services are very important. Beck and Brown (2011) suggest that access to financial services enables households to handle their income and expenditure over time, insure themselves against financial and life vulnerabilities and carry out productive investment. In the terms of production, access to finance is required to boost households' sources of income by topping up capital, or issuing start-up capital (Income generating activities, for example agriculture, enterprises, employment). Furthermore, access to finance accelerates utilisation of human and physical capital resources (Beck and Demirgüç-Kunt, 2008). This offers opportunities to talented households to raise capital, initiate and boost their projects.

Klapper and Demirgüç-Kunt (2013) argue that access to financial services, such as saving and credit services, may facilitate investment in productive activities. The engagement in production increases earnings and enables the smooth flow of income which, in return, facilitates consumption (Zeller, 1999). Alternatively, access to finance and use of financial services makes consumption of goods and services easier. This is performed through various channels. One channel is linked to the benefits of financial services in boosting production, leading to increase in returns. The earnings from production, on the other hand, facilitate consumption of goods and services (Zeller, 1999). Furthermore, households may need access to financial services to mitigate risk associated with production and the variability/fluctuation of income. Households and their members may be faced by various risks which relate to income generation. Such risks include, for example, lack of quality inputs for production, health crisis, education and other related risks. Should such scenario occur, accessing financial services such as insurance and savings helps households to manage their risks.

In this study, household needs for financial services in Tanzania are reflected in their financial experience and livelihood presented in Chapter 6. The need for financial services for households relates to facilities such as savings, credit and security (see discussion in section 2.3 and chapter 6).

## 2.6 Barriers to Access and Use of Financial Services

Despite the importance of financial development, and subsequent use of financial services, the usage of financial services is still very low in developing countries. The existing literature indicates non-use of financial services is associated with certain barriers. The barriers to access and use of banking services can be viewed in two dimensions. These are supply side and demand side barriers. Supply side barriers refer to factors that relate to institutional frameworks, government policy and physical barriers. The supply side barriers are also recognised as external factors with regards to the general environment of access to financial services. The result of supply side constraints is involuntary financial exclusion (Beck et al., 2009), whereas demand side barriers refers to individual or household perceptions and decisions for use of financial services. They relate to price, income, financial literacy, and other socio-economic and cultural factors. The demand side obstacles to access and use of financial services may result in voluntary exclusion (Claessens, 2006).

### 2.6.1 Supply Side Barriers to the Usage of Financial Services

There are many empirical studies on the supply barriers to financial access. Beck et al., (2006) examined the physical indicators for barriers to access to banking services across countries. They document that physical infrastructure and bank size predict barriers to access to finance. The large populations who lack access to financial services are believed to have been potentially impacted by poor physical structure and bank size.

As pointed out earlier, lack of access to, and use of, financial services in developing countries is associated with the problem of network distribution of financial providers. For example, Demirgüç-Kunt and Klapper (2012) found that distance from bank is a greater barrier to accessing financial services in rural areas. For example, Ethiopia has less than one branch per 100,000 people; Botswana has one branch per 10,000- square Kilometres while Spain has 96 branches per 100,000 people and 790 branches per 10,000 square kilometres (Beck et al., 2009). As can be seen, there is greater access to financial services in Spain than Botswana and Ethiopia. Allen et al., (2014) identify that branch network penetration following the Equity Bank business model is associated with the improvement of access to financial services in Kenya. These findings indicate that a greater branch network may lead to greater coverage. Thus, greater access to financial services may result. Although it is recognised that financial institutions are widely dispersed in developing countries, it is not believed this could be the only reason for lack of access and use of financial services. This is due to the fact that, even where financial services are readily accessible, for instance the United Kingdom and the United States, there are non-users of financial services.

Claessens (2006) mentions that inadequate institutional environment contributes to the failure of expanding the access to financial services. Weak legal systems, information infrastructure and lack of competitiveness lead to weak and inefficient financial systems. Strong institutions, legal framework and political stability may stimulate access to financial services (Anayiotos and Toroyan, 2009). It can be suggested that strengthening institutional infrastructure provides the necessary environment for provision of financial services by financial institutions, and facilitates access to finance to individuals, households and enterprises. The worldwide financial reforms between the 1970s and 1990s were believed to enhance financial depth. Although there has been financial crises in the 1990s and 2000s in both developed and developing countries, Demirgüç-Kunt and Detragiace (1998) identify that financial liberalisation has stimulated financial development as well as institutional infrastructure. On the other hand, the emphasis on strong institutional infrastructure to facilitate broader access to financial services is questionable. There are countries which have qualified, efficient and sustainable institutional infrastructure, but their population consists of unbanked and under banked people. For example, in the United States about 8% are unbanked (FDIC, 2014) whereas in the European Union 12% of adult populations do not have bank accounts (Fondeville et al., 2008).

### 2.6.2 Demand Side Barriers to the Usage of Financial Services

Kostov et al., (2012) questioned the assumptions that the demand barriers are unreal. They point out that the provision and access to finance should not automatically fit the presence of an unrealised need for financial services. They report that demand for financial services by low income households is determined by their perceptions and attitudes towards financial services. Focus should not only be directed on solving the supply side barriers but may be linked to the demand for financial services. Thus, removing supply side barriers is not the only solution for increasing the access and use of financial services. The barriers may be removed, but if there is no willingness to use financial services it will be useless. Kostov et al., (2012) report on the positive effects of financial perception on the decision to access and use basic bank accounts. Where individuals have negative perceptions about financial services, they are less likely to buy financial them. Following the literature of demand side barriers to the use of financial services, the current study examines the use of services in Tanzania. Despite the presence of access barriers to the use of financial services in Tanzania (as discussed in Chapter 4), understanding the factors that determine the use of financial services is crucial. This relates to the fact that access/supply is not an end in itself. People may have access to financial services but may not use them for various demand related reasons. For instance, in developed countries such as UK and USA there are few or no barriers to accessing, but lack of use of financial services is reported (see for example FDIC, 2014; Fondeville et al., 2008)

## 2.7 Determinants for Access to and Use of Financial Services: An Empirical Review

As stated in chapter 1, there are few studies about the determinants for the use of financial services. These studies range from cross-country studies to country-specific studies. They discuss various aspects of determinants of access and demand for financial services. Similarly, they use various analysis techniques depending on their suitability and appropriateness to the given studies. These discussions of the empirical studies and their respective findings are presented in greater detail below.

The work of Beck et al., (2005) may be considered as among the first works to empirically investigate the predictors of household access to, and use of, financial services in a broader sense including developed and developing countries. They introduced aggregate measures of bank penetration to predict access to and use of financial services. To measure bank system penetration, they used demographic and geographic variables such as the number of branches and ATMs in relation to population. Meanwhile, the actual use of credit and deposits were indicated by the number of loans and deposit accounts in relation to the population, and average loan size and deposit size in relation to GDP. Their findings indicate the predictive power of geographic and demographic variables on the share of the use of bank accounts by households, and bank loans by small businesses. Ardic et al., (2011) and Kendall et al., (2010) who used the Financial Access dataset to examine deposit and loan account penetration around the world, report similar findings. Ardic et al., (2011) used the number of commercial banks per 100,000 adults and per 1000 square kilometres to measure geographic and demographic penetration of the financial system. They found that such measures have a significant impact on deposit penetration. In relation to that, Kendall et al., (2010) suggest improvement in geographical outreach to facilitate an increase in the usage of financial services.

Another cross-country study is that of Beck and Brown (2011), who studied the relationship between the use of financial services and household characteristics, bank ownership structure, and development of financial infrastructure in transition economies. They explored the relationship between household characteristics and use of banking services, and the relationship between bank ownership structure, financial infrastructure and use of financial services. They found the existence of a relationship between household characteristics and use of financial services. Specifically, households who hold bank accounts were observed to have higher incomes be located in urban areas be professionally educated and less likely to be self-employed, and the opposite proved true for households without a bank account (Beck and Brown, 2011). Additionally, Al-Hussainy et al., (2008) explored the association between household characteristics, access to deposit, and lending services. They identify a mixed relationship between household characteristics, indicated by gender of the household head, and the likelihood that the household has an account. They found that household with female heads in Armenia are more likely to use a bank account, while the opposite is true for Guatemala. Similarly, Beck and Brown (2011) observed variation of economic magnitude of effects of household characteristics on the use of financial services. The variable household expense was significant in all countries except Azerbaijan and Tajikistan. In the same study, the result from a probit model indicates that household characteristics, bank ownership structure and financial infrastructure significantly drives the use of banking services *(use of financial services being measured by holding cheque account or savings account*). Although cross-country studies provide a broader overview, they may not provide an in-depth picture of individual countries. For instance, the aforementioned studies are important for providing a picture about access around the world. However, the variation of results calls for study of individual countries in order to specifically identify the determinants and predictors of access to, and use of, financial services.

Rojas-Suárez and Gonzales (2010) investigated the reasons why large segments of the population of emerging economic powers (Brazil, Mexico, India and South Africa) lack access to financial services. Accordingly, weak institutional and regulatory constraints are indicated to be strongly associated with the low rate of access to financial services in the emerging economic powers (Beck and Brown, 2011; Al-Hussainy et al., 2008; Beck et al., 2006). At first sight, these findings in studies across different countries and regions are consistent with regard to the potential of institutional and regulatory framework. Nevertheless, some studies indicate macroeconomic obstacles to be non-fundamental for improvement of access to finance among the emerging powers (see Rojas-Suárez and Gonzales, 2010; Ardic et al., 2011). This indicates conflicting perspectives following deeper investigation related to the differing natures and characteristics of these economies. The emerging powers appear to be in between the developed countries and developing countries. Though this might be beyond this study, it is worth mentioning the findings by Rojas-Suárez and Gonzales (2010). They identified that the emerging powers relate to developed countries in terms of the effects of macroeconomic variables (macroeconomic instability) in improving access to financial services. However, in terms of the influence of institutional and regulatory factors on access to finance, emerging powers are related to developing countries. Such findings are connected with the differing levels of development between countries. One may suggest that institutional and regulatory frameworks appear to be crucial for improvement of access to finance in the emerging markets and developing countries, but not in developed countries. This is confirmed by the findings that institutional factors affect financial depth and access to financial services in Sub-Saharan countries (Anayiotos and Toyoran, 2009). Nevertheless, the emphasis on macroeconomic variables should depend on the economic development of the particular country. For example, Rojas-Suárez and Gonzales (2010) mention that macroeconomic variables such as macroeconomic instability may not be of much concern to policy makers in emerging markets. However, the findings are not conclusive. In the same study (Rojas-Suárez and Gonzales, 2010) they indicate that, in countries such as Turkey, the volatility in macroeconomic variables (real GDP) highly affects access to financial services.

The mixed findings of the regional examinations on access to financial services stimulated further studies at a country level. Boakye and Amankwa (2012) examined the determinant factors for consumption of financial products in Ghana. They hypothesised that factors such as education, communication, income and geographical setting are not related to the consumption of financial services. Yet their hypothesis was rejected, as they observed such factors positively determine the take up of financial services. Similarly, Altunbaş et al., (2010) used a bivariate probit model to investigate the determining factors for financial exclusion in Bolivia. They found that household income, age, household size and location are positively related to access to financial services. Nevertheless, Cole et al., (2010) conducted an innovative survey and field experiment in India and Indonesia on the influence of financial literacy upon opening a bank account. They indicate that financial literacy does not predict the probability of demanding a bank account. The education program for the uneducated and less financially literate have only a modest effect on bank account opening. On the other hand, they found that financial literacy is positively correlated to household financial behaviour and wellbeing. Thus, in the long run, financial literacy may predict the use of financial services via its impacts on financial behaviour.

Although the literature on determining factors of access to, and use of, financial services is limited, there are some surveys on the gender perspective in relation to financial inclusion. For example, Altunbas et al., (2010) observed that female-headed households are more likely to be excluded from formal credit (Bolivia). Klapper and Demirgüç-Kunt (2012) report a 6-9 percentage gender gap in usage of formal accounts in developing countries. However, Aterido et al., (2011) studied whether women are discriminated against men in the use of financial services by business and individuals in Sub Saharan Africa. They do not find evidence on gender discrimination. On the other hand, their further findings in assessing whether there is gender gap in the use of financial services strongly indicate an unconditional gender gap in Sub Saharan Africa (Aterido et al., 2013). However, their investigation found that gender gaps do not significantly affect the use of financial services for female entrepreneurs. Lower use of financial services might be due to income, lower education, likelihood of not being employed and the role within the household. Meanwhile, when access to and use of financial services is categorised as formal or informal, women are more likely to use informal financial services while men are more likely to use ones. Finmark Trust 2011). Johnson and Nino-Zarazua (2011) argue that being a woman reduces the probability of being excluded from informal financial services. The reasons behind women's usage of informal financial services include favourable features of informal financial services, such as the lack of legal contracts and not demanding collateral as  security for loans, that facilitate access for women who could otherwise be disadvantaged(see discussion about informal financial services in section 2.2.2). By not demanding collateral and other legal requirements, women are relieved from constraints resulting from lack of legal ownership of properties, which customarily has disadvantaged women in most developing countries (Mohamed, 2012; Aterido et al., 2011; Fretschner and Kenney, 2011). For instance in Tanzania, despite the efforts to eliminate gender discrimination (see for example Tanzania Gender Network Programme promoting women decision-making at all levels), the country is still patriarchally based (Mohamed, 2012). Additionally, Mohamed (2012) argues that customary laws disfavour women and forces them to engage in the informal economy. As explained in section 2.2.2, greater inclusion of women in the informal financial services also relates to the argument that informal financial services are widely used by the poor (Islam, 2016; Littlefield et al., 2003; Rutherford, 2002). Women have been reported to be more likely to be poor than men (United Nationas, 2015; Shisana et.al., 2010; Cagatay, 1998; Casper et al., 1994; Millar and Glendinning, 1989). This spotlights the influence of gender norms for the usage of financial services.

On the other hand, technological innovations are thought to overcome barriers related to physical distance. Prior and Santomá (2010) argue that the increase in the usage of mobile phones and other wireless applications linked to financial services is expected to stimulate financial access for the unbanked. Demirgüç-Kunt and Klapper (2013) highlight the achievements of mobile money services in Sub-Saharan Africa where 16% of adults have been able to use their mobile phone to make bill payments, send and receive money. Furthermore, the use of mobile phones has gone further to include traditional banking services. For example, the introduction of M-Pawa (Vodacom) and Wekeza (Tigo) in Tanzania and Mshwari in Kenya has facilitated savings and credit services. M-Pawa, in collaboration with the Commercial Bank of Afric,a offers opportunity to individuals to save and, through such savings, they get access to credit. Yet, a half or more of people in those do not use mobile phone for banking services. Tanzania, for example, has a population of 47million but users of mobile financial services are about 5million (Blanco, 2014). Ivatury and Pickens (2006) suggest that the use of mobile phones as a link for access to financial services is related to the perception and beliefs of people. This means that promoting the usage of mobile phones for financial services cannot be the only means of broadening access to financial services to the underserved, but perception and individuals' behaviour may matter.

There are a number of studies that suggest that education and financial literacy influence the access to, and usage of, financial services. Such studies relate to the importance of financial literacy in financial decision-making and financial management. Bhushan (2014) defines financial literacy as the capability to make decisions about the use and management of money. Financial literacy may enable individuals and households to manage their money in both short and long term, and may determine their financial behaviour. Literate individuals and households may recognise their financial needs and identify financial products suitable for them. Financial literacy may induce positive financial behaviour (Cole et al., 2008). It may determine saving and spending behaviour as well as usage of financial services. Individuals and households are able to make informed decisions regarding their finances. It is possible to plan their income well, creating contingency plans through access to, and use of, financial services such as savings, credits and investment. They can decide on an appropriate financial instrument for their financial motives.

Conversely, lack of financial literacy could lead to inability in financial decision making, thereby affecting financial behaviour as well as the use of financial instruments. Financial literacy benefits individuals and households, but it also may enhance efficiency in the financial market. Braunstein and Welch (2002), state that financial literacy enhances demand for financial products corresponding to financial needs. Such demand for financial services may stimulate competition in the financial markets for meeting the financial needs of consumers. Therefore, one can argue that financial literacy improves financial behaviour, which in turn may facilitate informed decisions on the use of financial services. In addition, making informed financial decisions may trigger financial services providers to offer services that are demanded by consumers. Meeting the demand of consumers ensures provision of suitable services to consumers, thereby enhancing the usage of financial services.

Due to the importance of financial literacy and education, financial literacy has gained attention worldwide. Policy makers in developing countries together with the World Bank have initiated financial literacy programmes (Rutledge, 2010; Perotti et al., 2013;

OECD, 2013a; World Bank, nd). Similarly, empirical studies have been conducted to examine the potential of financial literacy in predicting the use of financial services. Johnson and Nino-Zarazua (2007) showed the direct influence of education on consumption of financial services in Kenya. The likelihood of using financial services increases with the level of education. Wachira and Kihiu (2012) studied the effects of financial education in the usage financial services in Kenya. They observed that an increase in education leads to an increased access to semi-formal and formal financial services, while the access to informal financial services diminishes. Consequently, an increase in levels of education significantly reduces the probability of being excluded from financial services. This somehow concurs with the findings of Cole et al., (2010) that education programmes for the uneducated and financially illiterate stimulates the demand for financial services. On the other hand, it is unclear whether education and financial literacy determine the use of financial services (Xu and Zia, 2012). There are findings which dispute the impact of financial literacy on the use of financial services. The experimental surveys by Cole et al., (2010) indicate that financial education has moderate impact on the financial illiterate. However, it appears that financial literacy has no effect on the likelihood of opening bank accounts for the general population.

Lack of money and missing documentation are often cited as reasons for lack of access to financial services by most Africans (Demirgüç-Kunt et al., 2007). Similarly, Demirgüç-Kunt and Klapper (2012) show that the cost of running a formal account is a common barrier to accessing financial services in Eastern and Southern Africa. Meanwhile, Claessens (2006) found that individuals and households are constrained from access to and use of formal financial services due to the requirement of higher minimum opening balance for both saving and current accounts.

Culture is another factor that can influence the use of financial services. Guiso et al. (2006 pg23) defined culture as “those customary beliefs and values that ethnic, religious, and social groups transmit fairly unchanged from generation to generation”. Gigenzera and Selten (2001), argue that culture relates to the values and beliefs which the societies follow. These values and beliefs are transferred from one generation to another in such a way that they impact both the individual’s and society’s decision making (see Gigenzera and Selten, 2001). The point that culture instils a way of living, once an individual is adapted to a particular way, creates difficulties in adapting to new ways. Culture would have an impact on adoption of new ways, but also it generally influences decisions and choices including decisions about financial services. Consistently, there are reports on variation of levels of financial inclusion in different countries. These differences are influenced not only by economic levels, institutional, political and geographical environment (Kumar, 2005; Gonzalez and Rogers-Suarez, 2009), but also cross-country cultural differences (Osili and Paulson, 2008; Atkinson, 2006). Osili and Paulson (2008) studied the influence of the institutional quality of the country of origin of immigrants in the US on their financial market participation. They document that institutional quality has a positive relationship with the use of bank accounts, to the extent that immigrants from countries with a weak institutional framework were less likely to have a bank account in US. Only those who lived in US for more than 28 years were the exceptional to this. Similarly, Atkinson (2006) reports immigrants in the UK brought with them their informal methods of finance, although they appear to be inefficient. The studies by Osili and Paulson (2008) and Atkinson (2006) are not directly investigating to culture, the measures and information refers to culture. This is relevant to the definition of culture outlined above. Similarly, Stulz and Williamson (2003 pg. 314) comment that the "work showing that the origin of a country's legal tradition matters is evidence that culture matters". Similarly, the decision to use financial services is not just a matter of their availability (supply side) but it may depend on the cultural background of consumers.

Cultural impacts on the usage of financial services do not only refer to cross-country differences, but also they play a role at an individual country level. People of different backgrounds hold different values and different beliefs. The values and beliefs which they hold can have positive or negative influences on financial decisions and choices. For instance, there are reports that some Muslims do not use conventional financial services (financial services offered by banks other than Islamic banks/Islamic finance) because of their belief in Sharia law that forbids the charging and earning of interest (see for example Naceur  et al., 2015; Demirgüç-Kunt et al., 2013; Akhter et al., 2009; Karim et al., 2008). Although Demirgüç-Kunt et al., (2013) find no evidence that Muslims are less likely than non-Muslims to use formal or informal borrowing, they report that Muslim adults are less likely to own a formal account, and Sharia compliant products are hypothetically preferred by Muslim adults. Naceur et al., (2015) report that 34% of adults in Afghanistan cite religious reasons for not having an account. Similarly, FSDT (2009) indicate that about 10% of the adult population in Tanzania do not use savings and loan products offered by financial institutions because of religious reasons. However, there is no conclusive evidence about the extent of exclusion based religious reasons. This is due the existing state of financial exclusion despite the establishment of Islamic financial institutions in Islamic countries (Naceur et al., 2015).

Similarly, Claessens (2006) argues that economic agents, individuals and enterprises may have access to financial services but may simply not need to take advantage them for psychological reasons. Shefrin (2000) discusses psychology as the basis of human desires, goals and motivations that have influence in the financial environment. Relatively, there have been some studies in financial economics that discuss the influence psychological elements such as attitude, perception and behaviour have in investment decisions (see for example Ackert and Deaves, 2009; Ricciardi, 2008). On the other hand, there are few studies related to the influence of psychological aspects in the usage of savings and credit as part of financial services. This limited literature is among the motivations for the current study (see section 2.8 for more information). These include the study by Kostov et al., (2012) who investigated the influence of financial attitudes and perceptions on the take-up of basic accounts (Mzansi) in South Africa. Financial attitudes, indicated by trust towards sources of finance, and financial perception, indicated by motivation for using Mzansi basic accounts for immediate withdrawal, significantly determine the demand for financial services (Kostov et al., 2012). Kon and Storey (2003) investigated the implication of discouraged small-scale business in application for loans in the US. They observed that potential borrowers who perceive that they will be refused loans from the banks do not apply for bank loans. Fondeville et al (2010) report a small proportion of European households does not have bank accounts because of their perception of being rejected by banks if they did apply for one. Kumar et al., (2004) find that, of people who do not use financial services, 18% in the USA, 18% in Mexico, 3% in Columbia and 25% in Brazil state their reasons for not using formal financial services relates to perception of services regarding safety. Similarly, FSDT (2009) indicate that 2% of respondents report their non-use of financial services to be related to their personal perception, phrased as “banks are not for people like me”.

Furthermore, there are empirical findings that different psychological factors may determine the use of various kinds of financial services at different levels. Annim et al., (2013) assessed the impact of financial perception and behaviour on access and usage of the three categories of financial services (general accounts, investment and insurance). They document that perceptions that bank accounts are crucial have a greater influence on access to, and usage of, general accounts; meanwhile, financial behaviour such as saving by trading off basic things greatly influences the take up of investment and insurance services. Similarly, Boakye and Amankwah (2012) examined the factors determining the usage of financial products by individuals in Ghana. They document that perception about the inherent benefits of using financial services is among the factors that influence individuals to demand bank accounts if use of bank accounts would improve their chances of getting a loan. Similarly, FSDT (2009) indicates that about 47% of adult respondents have the perception that having an account in a financial institution makes it easier to get credit for business. People may make their choice from different financial products depending on their needs. On one hand, the attitude and motivation for one financial product may not be the same as another kind of financial product. On the other hand, one financial product could attract the demand for another product. For instance, people engage in saving for various motives (Keynes, 1936; Modigliani, 1966). Based on their saving motivations they engage with different saving accounts. On the other hand, their engagement in saving behaviour could attract investment. See, for example, the relationship between saving and investment (Ang, 2007; Feldstein and Bacchetta, 1991; Pickersgil, 1976).

## 2.8 Conclusion

This chapter has reviewed the foundations of the interest in studying the determinants for the use of financial services. Two main conclusions are derived from the reviewed literature. Firstly, the reviewed literature confirms the potential of use of financial services based on the strong evidence of the importance of access to finance for growth and the total economic well-being. Despite the potential of financial services to improve economic well-being, the usage of financial services is still very low (World Bank, 2014). Thus, it is important to study what determines the usage of financial services.

Secondly, previous studies on the determinants of the use of financial services have their own limitations, which motivate and justify the undertaking of the current study. One aspect relates to the fact that the empirical investigations conducted so far have not reached a single solution to the problem of improving the access to and use of financial services. In the supply side perspective, for instance, Beck and Brown (2011) found that institutional framework matters for access and use of financial services; meanwhile, the findings by Rojas-Suárez and Gonzales (2010) indicate that macroeconomic obstacles are non-fundamental for the use of financial services. Similarly, on the demand perspective, a number of studies indicate that financial education is an important factor for the use of financial services (Nino-Zarazua, 2007; Cole et al., 2010; Wachira and Kihiu 2012), whereas Cole et al., (2011) found no effect of financial education programmes on the use of financial services.

The second aspect relates to the results of financial reforms in developing countries. The majority of the developing countries initiated financial reforms in early 1980s and 1990s (Kim and Kenny, 2006). However, the results of financial reforms are not satisfactory. The World Bank (2014) reports that more than 70% of the adult population in developing countries do not use formal financial services. Thus, enhancing access to financial services cannot be the only means for increasing their use. For example, there is evidence that non-use of financial services is mentioned even in developed countries, which have fewer or no access barriers to their use (see Fondeville et al., 2010). Therefore, the current study emphasises the importance of addressing demand side factors for increasing the use of financial services.

As for what concerns demand for financial services, less is known about the effects of behavioural factors on their use. Most studies have concentrated on classical finance (Beck et al., 2005; Anayiotos and Toroyan, 2009; Beck and Brown, 2011; Rojas-Suárez and Gonzales, 2010; Demirgüç-Kunt and Klapper, 2012). Human decisions are, however, affected by psychological factors. Studies in other fields such as health, agriculture, and e-commerce, including electronic financial services, document evidence of the role of human behaviour in decision making and performance of behaviour. The current study expands the understanding of the determinants of use of financial services by investigating the role of behavioural factors in their use. The theoretical and conceptual framework of analysis for the study is discussed in detail in the next chapter. The previous works of Osili and Paulsen (2008), Cole et al., (2008) and Annim et al., (2013), about the effects of culture and behaviour on the use of financial services are reviewed. However, the current study is differentiated by the fact that it is carried out on a developed behavioural conceptual model, presented in chapter 3. Additionally, the study is undertaken in a context where supply side barriers have not been extinguished and there is no benchmark service to allow full access to financial services. This challenges whether the initiatives for the improvement of the supply of financial services should continue at the expense of demand constraints. The primary idea is to underscore the role of behavioural factors in the use of financial services, even in the countries where there are supply barriers. This goes hand in hand with the understanding of the financial experiences of households.

Therefore, the conceptual framework of analysing the role of behavioural factors for the use of financial services is presented in chapter 3.

# CHAPTER 3 : THEORIES AND CONCEPTUAL FRAMEWORK

## 3.1 Introduction

This chapter builds upon the literature review conducted in chapter 2, which identified and established the gap to be studied. Sections 3.2 and 3.3 review and discuss the theory of reasoned action (TRA) and the theory of planned behaviour (TPB) respectively. The review justifies the decision for an appropriate theoretical approach for understanding the role of behavioural factors in the use of financial services. The empirical evidence related to the theory of reasoned action and the theory of planned behaviour is discussed in section 3.4. The importance of theory in research is based on its ability to offer insights into the world being studied and ways to ask new questions (Gilbert, 2001). On the other hand, theory provides a map and direction for good and justified research. Section 3.5 discusses the developed behavioural conceptual framework and justifies the theoretical approach. Section 3.6 provides a summary of the chapter.

## 3.2Theory of Reasoned Action

Fishbein and Ajzen (1975) introduced the theory of reasoned action (TRA). This theory enhances understanding of human social behaviour. The assumptions are that behavioural intention predicts performance of behaviour, while the behavioural intention is determined by attitudes and subjective norms (Ajzen, 1991). Accordingly, the TRA postulates that behavioural intention is a function of two factors. One is the personal nature and the other relates to social influence (Ajzen, 1991). The personal nature refers to the individuals’ evaluation of behaviour, which is termed as attitudes towards behaviour. Meanwhile, the social influence on intention to perform behaviour reflects social interactions and evaluation of the intended behaviour in relation to social pressures (Ajzen, 1991). The functionality of the intention to perform behaviour is a product of a positive or negative evaluation of the intended behaviour, and whether such intention is believed to be important and of value to others (Ajzen, 1991). The relative importance of the influence of attitudes and subjective norms on the intention depends on the behaviour under question. Ajzen (1991) points out that some intentions may strongly require attitudes towards behaviour, while other intentions would require subjective norms. For instance, meta-analysis conducted by Armitage and Conner (2001) on attitudes, subjective norms and intentions to perform behaviour, reports that subjective norms are weaker than attitudes in predicting intention. On the other hand, Rivis and Sheeran (2003) found subjective norms measured by descriptive norms increase the variance of intentions to health behaviour. However, in most cases, both the attitudes towards behaviour and subjective norms determine the intention to perform behaviour (Ajzen, 1991).

The function of attitudes towards behaviour and subjective norms in predicting the intention and actual behaviour can be represented by the following equation,

$B \sim I \ \alpha \ [w_1 A_B + w_2 SN]$......................................................................................3.1

Whereby,

B refers to the intended behaviour. I is the person's behavioural intention to engage in behaviour B. Intention is the main construct in the TRA. Conceptually, the intention to perform behaviour relates to motivation factor to perform behaviour (Ajzen, 1991). This includes willingness, plan and efforts one engages in order to perform behaviour. Rummel (1979) describes intention as disposition in the process of realisation of the desired goal through some specific behaviour. For example, individuals' intention to pursue further studies may be indicated by planning and search for information about the intended studies. The engagement in such activities would portray interest and intention to pursue studies, and such intention predicts the pursuit of studies. In other words, intending to perform something predicts the likelihood of performing the related behaviour. Therefore, intention is a path for behavioural performance. However, it has been noted that it is not always the case that the performance of behaviour is predicted by intention. There are circumstances where individuals perform behaviour which was not intended. Bagozzi et al., (1989) note that some behaviour is routine or is enforced by emotions. Engaging in certain behaviour routinely may become a behavioural habit, which would automatically lead to the performance of behaviour without engaging in efforts to perform such behaviour.

$A_B$ refers to the attitude towards behaviour B. Ajzen and Fishbein (1975) describe attitude as a depiction of the individual's general feeling of like or dislike of an object or behaviour. Moreover, such a feeling of like or dislike develops because of the person's evaluation of an object/behaviour (Greenwald et al., 1989). SN is the subjective norms, and w1 and w2 are estimated parameters for $A_B$ and SN respectively. Therefore, the intention to perform behaviour is a function of individuals' attitudes and the social influence (subjective norm). However, it appears that intentions may not be static; they are subject to change (Ajzen, 2001; Sheeran et al., 1999). The subjectivity of change of intention affects the actual behaviour. Stable intentions would more accurately predict behaviour than unstable intentions (Sheeran et al., 1999). In order to capture the lack of static in intentions, Ajzen's model of reasoned action above has the wavy symbol (~). The wavy symbol reflects that the intention influences behaviour only if it has not changed prior to performance of behaviour.

On the other hand, the individual's attitude towards behaviour is a function of salient belief which a person holds about behaviour, associated with evaluation of the outcome of such behaviour (Ajzen, 1991). The development of attitude is based on the person's belief about the object of attitude ($b_i$). The formation of belief about an object or behaviour is associated with the attributes of the object or behaviour, which are in turn linked to the expected outcome of performing behaviour (e). This can be represented as;

$A = \Sigma b_i e_i$ ..........................................................................................................3.2

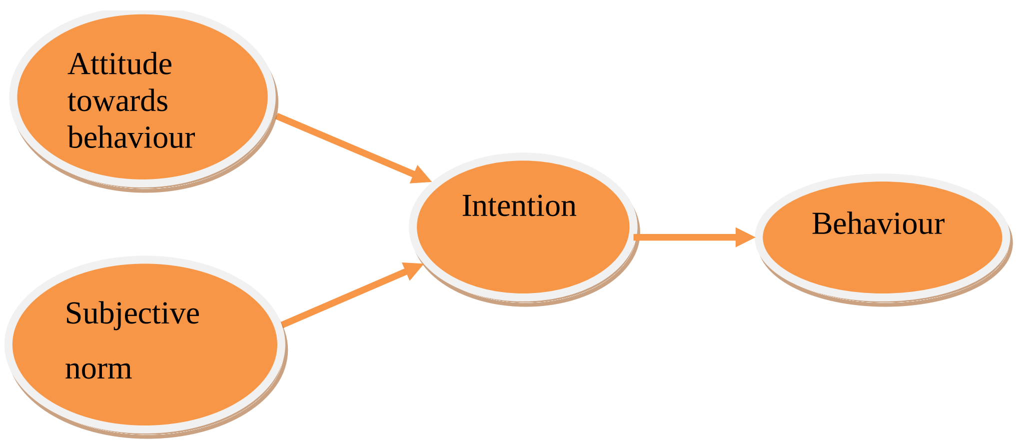
The subjective norms are influenced by normative beliefs. Normative beliefs relate to social interactions and weights given by the individual in relation to the perception of people who influence them (Ajzen, 1991). On the other hand, the normative beliefs are linked to the individuals' motivation to comply with the belief about people they refer to. This is represented as,

$SN= \Sigma n_i m_i$ ..........................................................................................................3.3

where, **n** is the normative belief, **m** is motivation to comply with the belief, and thus, the subjective norm **(SN)**, is a sum of products of **n** and **m**.

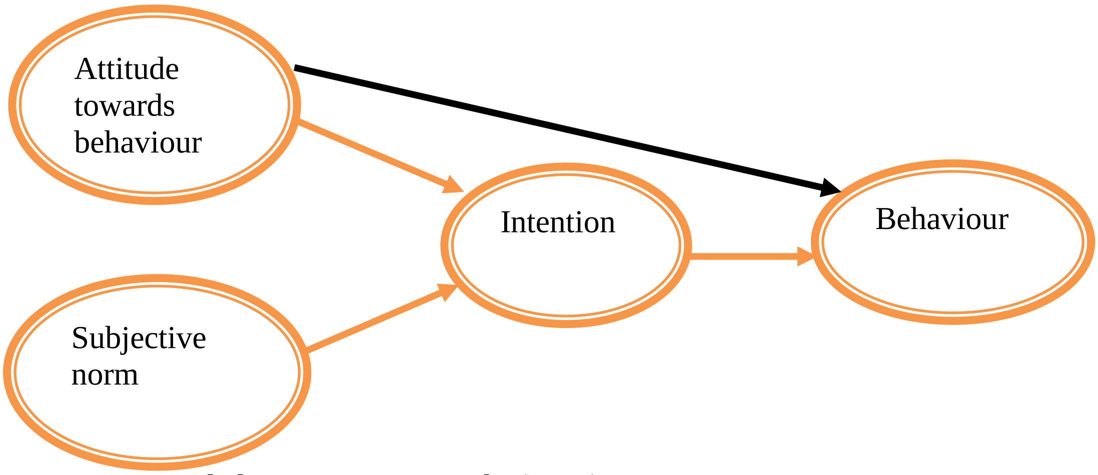
Nevertheless, there are challenges regarding the TRA assumptions of indirect influence of attitudes towards behaviour. Bagozzi et al., (1989) disagree that attitudes influence behaviour only through intention as TRA contents. They suggest that attitudes may influence behaviour either indirectly through intention (reasoned) or directly (unreasoned action) (see figure 3.1 and 3.2 respectively). The direct influence of attitude on action is a result of action with little or no thought (Bagozzi, 1989). They state that attitude directly influences behaviour in such circumstances where an action is a response to routine behaviour, or purchases are made by compelling emotion. Their findings agree with Bentler and Speckart (1981) who discovered that attitudes may directly influence the behaviour. Similarly, Quellette and Wood (1998) indicate the relationship between previous habitual behaviour and actual behaviour. Where the behaviour is habitual, efforts to support intention may not necessarily be required; the performance of behaviour may be invoked automatically with less effort.

**Figure 3.1: Theory of Reasoned Action**




*Source: Ajzen and Madden (1986)*

**Figure 3.2: Extension of TRA, Direct Influence of Attitudes towards Behaviour**




*Source: Extended TRA, Bagozzi et al., (1989)*

## 3.3 Theory of Planned Behaviour

The theory of planned behaviour (TPB) is an extension of the theory of reasoned action (TRA). As explained in section 3.3, the theory of reasoned action postulates that behavioural intention directly predicts the performance of behaviour. On the other hand, attitudes and subjective norms influence the behavioural intention. However, it is not always that the intention would result in performance of behaviour (Ajzen, 1991; Kuhl and Beckman, 1985). It is argued that intention can only predict the endeavour to perform behaviour, but the actual behaviour may not be performed (Ajzen, 1991). Similarly, Kuhl and Beckman (1985) point out that performance of behaviour is controlled by intention, but not all intention may be carried out. This is because intention is subject to changes as a result of various circumstances. For example, an individual intending to purchase credit may decide not to do so, due to perceived bureaucracy in processing the credit facility. In other words, there was an intention to purchase credit but bureaucracy constrains the achievement of the goal. Kuhl and Beckman (1985) discuss that TRA is impaired by the assumption of behaviour being under people's volition control. Furthermore, Ajzen (1991) identifies that performance of behaviour can be impaired by personal deficiencies and external factors. These include the availability of essential resources and opportunities for facilitating the behaviour. It is such obstacles to behavioural intention under TRA that led to the materialisation of the theory of behaviour. Thus, the theory of planned behaviour assumes that the accurate prediction performance of behaviour (actual behaviour) cannot be based on behavioural intention only, other factors that have control over intention and the actual behaviour have to be taken into consideration. This warrants the inclusion of perceived behavioural control construct in predicting both the behavioural intention and the actual behaviour (Ajzen, 1991). As presented in figure 3.3 the difference between TPB and TRA is that, in TPB, perceived behavioural control is included in predicting the behavioural intention as well as the performance of behaviour. Ajzen (1991) describes perceived behavioural control as a person's perception of the ease or difficulty of performing targeted behaviour. As pointed out earlier, perceived behavioural control relates to the availability of resources and opportunities necessary to support the performance of behaviour. Ajzen and Madden (1986) point out that if a person is in possession of all required resources and opportunities, s/he is more likely to perform behaviour. Where there are limited resources and opportunities, the likelihood of achievement of the behaviour of interest becomes slim. Ajzen and Madden (1986) describe the ease or difficulty in achieving behaviour related to factors such as time, skills, money and other resources. On the other hand, the theory asserts perceived behavioural control is formed by control belief. Control belief is concerned with the person's belief about the presence of factors that may facilitate or inhibit the performance of behaviour (Ajzen, 1991). In other words, they refer to the belief individuals hold in relation to their ability to execute behaviour, subject to availability of resources and opportunity. Relatively, the strength of the control belief, subject to its perceived control power, produce perceived behavioural control. The formation of perceived control construct can be represented by the following equation;

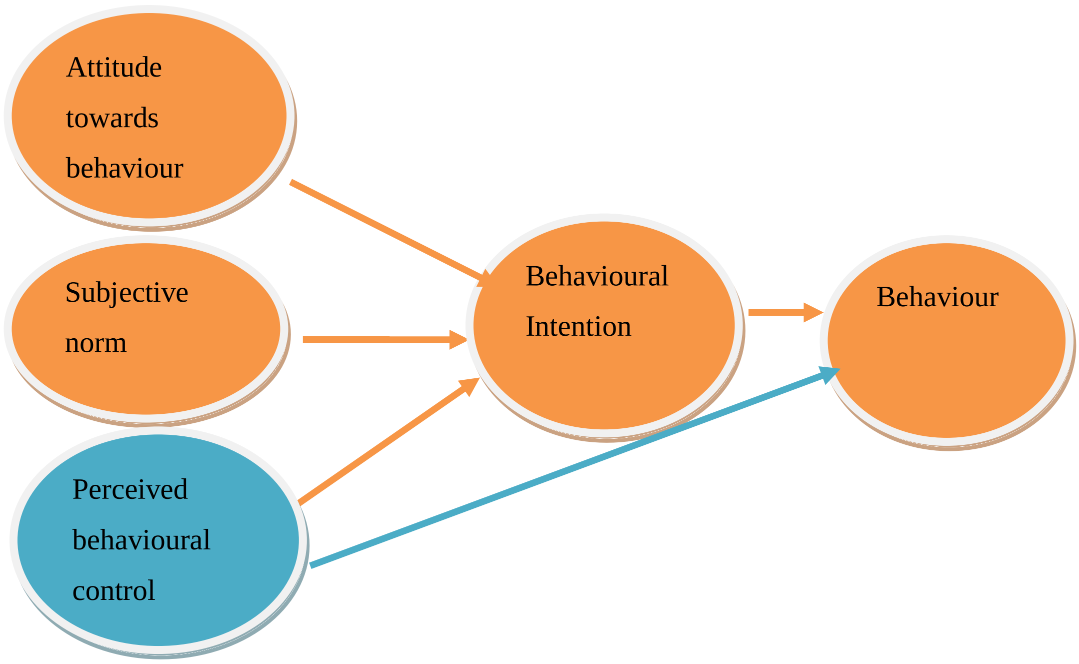
$$PBC \; \alpha \sum C_i P_i \qquad \text{.............................................................} 3.4$$

Whereby, PBC is the perceived behavioural control as a function of control belief C being weighted to its perceived control P. If individuals believe they are in full possession of resources for performance of behaviour, their perceived control over behaviour is greater, facilitating behavioural intention. On the contrary to that when individuals believe they have fewer resources to execute the behaviour, they become less confident, the control over behaviour is low and behavioural intention becomes low. For example, in the demand for financial services, a person who is aware of financial services, possesses financial skills, is interested in financial services and has money to engage with financial institutions would be more likely to intend to use financial services than their counterpart. This is because having such resources increases confidence to engage in financial services

Ajzen (1991) further argues that the combination of behavioural intention and perceived behavioural control can facilitate the performance of behaviour. The performance of such behaviour relates to the hypothesis that, at the constant, the effort to achieve the behaviour of interest would increase with perceived behavioural control (Ajzen, 1991). In other words, the availability of resources and skills necessary for performing a particular behaviour stimulates the behavioural intention. The second hypothesis, that perceived behavioural control is linked to behaviour, is based on the probability that the former have actual control of the latter (Ajzen, 1991). If a person has opportunities and resources and intends to perform behaviour, she or he may be successful in doing so (Ajzen, 1991).

Figure 3.3 illustrates the theory of planned behaviour. In brief, TPB can be depicted in three scenarios. Firstly, there is a joint role of attitudes, subjective norm and perceived control in predicting the intention to perform behaviour. Secondly, perceived behavioural control can exert direct influence on performance of behaviour. Thirdly, there is association between the determinants of behavioural intention. Vallerand et al., (1992) indicate robust correlation between attitude toward behaviour and subjective norms.

**Figure 3.3 : Theory of Planned Behaviour**




*Source: Ajzen (1991)*

## 3.4 Empirical Evidences; the Theory of Reasoned Action and the Theory of Planned Behaviour

There is extensive evidence to support the theory of reasoned action and the theory of planned behaviour. The evidence is observed from various fields, such as health, e-commerce including electronic financial services, agriculture and other fields. The theories have been utilised in the agricultural sector. Laepple (2008) indicates correlation between farmers' attitudes, subjective norms and intention to change their farming approach. Consistent with the suggestion of Ajzen (1991) that attitudes and subjective norms may affect intention with differing magnitudes, Laepple (2008) found that farmers' subjective norms influence the intention to convert to organic farming more than their attitudes do. Similarly, Hattam (2006) in a similar kind of study in Mexico, found that subjective norms and perceived behavioural control positively and significantly influence the intention of farmers to convert to organic farming, while attitudes towards conversion to organic farming was found to have insignificant negative implication on intention. In such situations, social influence (subjective norms) appears to be dominant in determining the intention to perform behaviour in the respective field. Other applications of the TRA and TPB in agriculture are Von Hase (2013); Sharifzadeh et al., (2012); Conte et al., (2010); Herath (2010); Petrea (2001).

The literature also indicates the applicability of TRA and TPB in the health sector. Various studies relating to human behaviour on health issues have successfully employed and tested the theories under study. For instance, Conner et al., (2002) discuss how attitudes, perceived behavioural control, and perceived past behaviour predict the intention to engage in healthy eating. Godin and Kok (1996) reviewed health related behaviour studies in connection to the application of TPB. They indicate that the TPB explains 41% of variance in behaviour. They further argue that attitudes toward behaviour are the most significant predictor of intention; meanwhile both intention and perceived behavioural control predict the actual behaviour.

Amitage and Conner (2001) and Haggar et al., (2002), have documented their detailed review of evidence about the theory of planned behaviour and the theory of reasoned action. The findings in both meta-analyses confirm the hypothesis and explanation of the theories. Amitage and Conner (2001) conducted a meta-analysis for 185 published studies based on the theory of planned behaviour and reasoned action. The theory of planned behaviour was documented to explain intention and behaviour by 39% and 27% respectively. More interestingly, the analysis endorses the extension of TRA to TPB by reporting that the perceived behavioural control variable adds, on average, 6% of predictive power on the TRA constructs. Furthermore, the perceived behavioural control variable was found to play a role in predicting behaviour, both directly and indirectly. Haggar et al., (2002) examined the relationship among the TPB constructs in a sample of 72 published studies in physical activity. The TPB constructs were found to be accountable in predicting physical activity intention and behaviour.

In the field of finance, Koropp et al., (2014) studied family financial decision making in the choice of financial instruments, with a sample of 118 family firms in Germany. Employing structural modelling techniques (SEM) their findings confirm the role of attitude towards behaviour, subjective norms and perceived behavioural control on the intention, as well as performance of actual behaviour. With regard to financial decision making about financial instruments such as debts and equity, they found that attitude towards behaviour and subjective norms towards each instrument predicts the intention to choose particular instruments, as well as actual choice of financial instruments. Additionally, they found that perceived behavioural control negatively influences the behavioural intention to employ external debt, and positively influences the intention to use family's own funds. Kennedy (2013) studied the prediction of attitude towards credit cards, subjective norms and perceived behavioural control on the intention by university students. Using hierarchical regression, he found that attitudes towards credit cards, subjective norms and perceived behavioural control variables significantly predict students' intention to use credit cards. The respective independent variables explained 32% of the variance of students' intention to use credit cards. Similarly, the argument of Bagozzi et al., (1989) that attitude may have a direct relationship with actual behaviour, Kennedy (2013) indicates that attitude towards credit cards has a positive correlation with the usage of credit cards. Gu et al, (2009) studied the determinants of intention to use mobile banking. They developed a behavioural intention conceptual model based on Technological Acceptance Model including relative TPB variables. Using SEM, the established model explained 72.2% of the variance of intention to use mobile banking services. Specifically, perceived ease of use (relative to perceived behavioural control) affects the perceived usefulness, which in turn affects behavioural intention. Similarly, Shih and Fang (2004) investigated the prediction of attitudes, subjective norms and perceived behavioural control of customers' intention to adopt electronic banking in Taiwan. Their results, through structural equation modelling, support both TRA and TPB.

Further work was carried by East (1993) tested the theory of planned behaviour in investment decision making. The trading of shares was observed to be predicted by intention to invest in shares, and intention to invest in shares was influenced by attitudes, subjective norms and perceived behavioural control. Although there is less financial economic literature that is based on the theory of planned behaviour, Bagozzi (2000) puts emphasis on the application of human behavioural theories in studying consumer behaviour. Unlike economic consumer theory, which stresses utility in consumption without considering the reasons behind such behaviour, human social behaviour offers reasons and motivations behind behaviour (Bagozzi, 2000). This is consistent with the nature of humans, being socially connected from the basic level of family to the community, the nation, as well as at an international level. Because of that, it is crucial to understand their economic behaviour from the social point of view. Accordingly, Rankin (2002) emphasises the role of social capital as a resource for facilitating development from the bottom up. Granovetter et al., (2005) stress the effects of subjective norms in economic decision. As previously pointed out, Johnson (2004) documents the effects of subjective norms in the form of gender norms on the demand for informal financial services. For more discussion about the gender norms and use of informal financial services, see Chapter 2 section 2.7. Other empirical evidences on the applicability of TRA and TPB on e-commerce include, for example Gopi and Rayan (2007); Lin (2008).

The discussed human behavioural theories are important and have been successfully used in prediction of intention and behaviour of individuals. The interesting point about these human behaviour theories is that they are applicable in almost all relevant fields (Sommer, 2011). TPB appears to be flexible allowing one to take into account more behavioural constructs relevant to the study context. However, Ajzen (1991) argues that the inclusion of predictors other than those specified in the TPB should be based on their significance in predicting behavioural intention and actual behaviour.

## 3.5 Conceptual Framework

The conceptual model developed for examining the determinants of the use of financial services, specifically understanding the role of behavioural factors, is built on the theory of planned behaviour (TPB). The choice of the theory is grounded in the clear postulation of behavioural constructs in understanding human behaviour and decision-making. The major assumption of the theory is that the performance of behaviour is influenced by prior behavioural related constructs (see section 3.2 and 3.3). To put it another way, the behavioural intention and perceived behavioural control can predict human behaviour or performance of a certain activity (Ajzen, 1991). Household behavioural intention to use financial services, on the other hand, is influenced by attitudes towards financial services, subjective norms and perceived behavioural control. The postulated assumptions reflect the nature of the current study for exploring the role of behavioural factors in the use of financial services.

Additionally, the success and existence of empirical evidence that applied TPB (see section 3.4 for discussion) supports the choice of the theory for understanding behavioural factors for using financial services. Few studies in the field of finance, however, directly reflect the propositions of human behaviour theories. These include, for example, Koropp et al., (2014) who studied the intentions of family firms in the choice of financial instruments, and Kennedy (2013) who explored the intention of university students to use credit cards. The reasons behind the limited literature in the finance drawing on the theory of planned behaviour relate to the established economic theories on which the majority of finance literature is based upon (see chapter 2). In brief, from an economic point of view, human beings make rational decisions (Baumol and Blinder, 2011; Goosebee et al., 2011; Varian and Repcheck, 2010), and their demand for goods or services is a function of price and other non-price factors. Similarly, Beck et al., (2008) explain the use of financial services by price factors and other factors (for instance, income and availability of financial services). However, assuming an economic rationality has been criticised (Simon, 1972; Gigerenzer et al., 2000 and, Statman, 2010). Individuals are limited in their capacity to fully process the information required for economic rationality (Simon, 1972). For instance, anomalies in financial markets reflect the limitations of rationality (Adam et al., 2006; and De Brondt and Thaler, 1994). On the hand, the theory of behavioural finance emerged to complement the weakness of traditional economic theory by taking into account human psychology (Shiller, 2003). This research does not assert that the economic theories related to consumer demand are not worth. However, it examines the determinants of financial services from another perspective (human behavioural model; TPB) in order to offer a broader understanding of the phenomena from various perspectives.

Despite the fact that TPB has been successfully employed in various fields of studies (health, e-commerce, agriculture, finance), the literature suggests weaknesses in the theory of planned behaviour. Among the cited weaknesses is the failure to accommodate all behavioural variables (Levy et al., 2008). On the other hand, considering the nature of behaviour, which is multifaceted, it is not possible to develop a model that would take into account every single behavioural aspect. Skinner (2014) discusses that behaviour is an extremely complex phenomenon. An interesting point of the TPB is that it has clear postulation of behavioural constructs and is flexible to the point of allowing relevant modification. Ajzen (1991) argues that the inclusion of additional predictors, other than the ones specified in the TPB, should be based on their significance in predicting behavioural intention and actual behaviour. This has facilitated the undertaking of the study of behavioural characteristics for the usage of financial services.

As presented in figure 3.4, it is conceptualised that use of financial services is influenced by human behaviour (Fishbein and Ajzen, 1975; Ajzen, 1991). Firstly, the formation of household behaviour (i.e., beliefs about financial services, attitudes towards financial services, social norms and perceived behavioural control) is dependent on financial experience and environment surrounding social actors. They result from learning, experience and cultural environment. Fishbein and Ajzen (2005) show that the revealed attitude, social norms, intention and general behaviour are associated with knowledge, experience and cultural environment. Based on that, the current study explores financial experiences of households for two reasons. Firstly, to critically understand and spotlight the reality of household financial experiences and livelihood in relation to the need for financial services. As pointed out earlier, Barr et al., (2005) suggest the carrying out of empirical studies to back up behavioural theories by examining household financial behaviour and financial constraints facing households. Secondly, the understanding of household financial experiences could facilitate the understanding of household beliefs and behaviour about financial services. For instance, what are the general financial experiences of households? Do they manage their daily finance without an assistance of any formal financial service provider, and are they happy? If the answer is ‘yes’, one could argue that the attitude towards daily cash management services could be unfavourable, as the benefits of financial services cannot be justified against their usual financial experience. Therefore, the understanding of household financial experiences and livelihood is necessary to answer the research question; *what are household financial experiences and livelihood in Tanzania*?

Secondly, salient beliefs held by households about the use of financial services play a role in the formation of behaviour constructs. The revealed attitudes, subjective norms and perceived behavioural control, which influence intention and subsequent actual behaviour, mirror the inherent salient beliefs associated with factors such as knowledge, experience and cultural environment (Ajzen, 1991). Barbaries and Thaler (2005) acknowledge that once people have formed an opinion (belief) they cling to it. When a person has formed a belief about something, they hold on their to belief even when the contrary happens. For example, the belief that financial services "are not for me", could possibly cause one not to use them, even when such services have been expanded to reach that particular class. Barbaries and Thaler (2005) point out that in finance, "belief perseverance predicts that if people start out believing in Efficiency Market Hypothesis they will continue believing in it long after compelling evidence to the contrary has emerged". Similarly, Gu´erin et al., (2011) in their study about understanding the diversity of demand of microfince services learning from informal finance, suggest among other points the consideration of psychological facets. This relates to the importance of studying household beliefs about financial services. Other facets recommended by Gu´erin et al., (2011) include political and cultural perspectives (not addressed in the current study).

Attitudes, subjective norms and perceived behavioural control, on the other hand, are formed based on their corresponding beliefs (Ajzen, 1991). As stated in section 3.2 and 3.3, behavioral beliefs relate to salient information or beliefs a person holds about behaviour associated with evaluation of the outcome of such behaviour (Ajzen, 1991). Normative belief reflects social interactions and weight given by the individual in relation to their perception of people who influence them (Ajzen, 1991). Meanwhile, control belief is concerned with the person's belief about the presence of factors that may facilitate or inhibit the performance of behaviour (Ajzen, 1991). In this juncture, household beliefs about financial services are elicited to address the research question; *what are the beliefs held by households in Tanzania about the use of financial services?*'

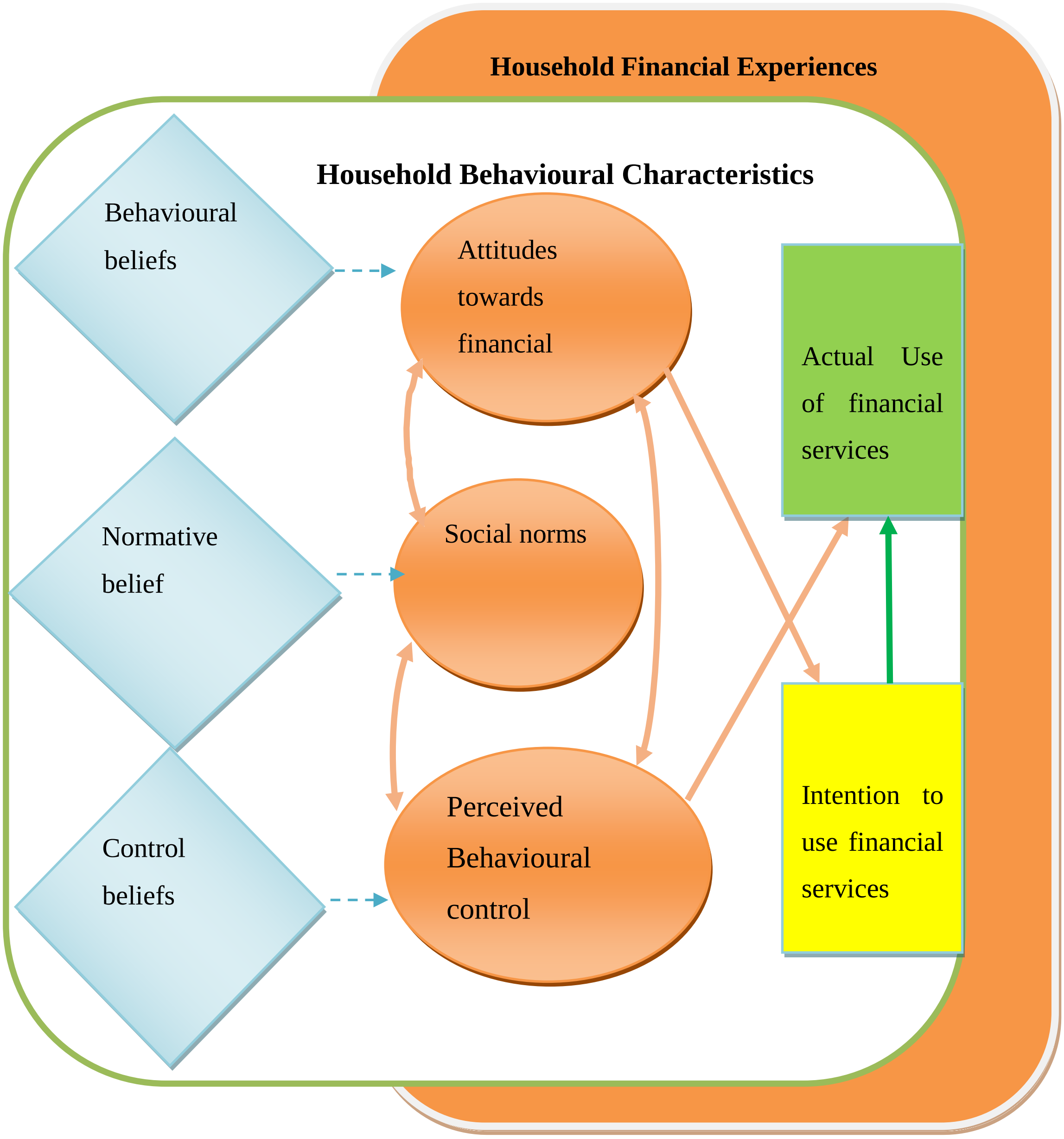
Thirdly, it is assumed that the usage of financial services starts with an intention to do so. Empirical evidences indicate intention is a key point in determining the performance of behaviour (Fishbein and Ajzen, 1975; Ajzen, 1991, Petrea, 2001). Despite the constraints facing households in accessing financial services, do they intend to use these services? Ajzen (1991) argues that individuals with intention to perform behaviour under volition control are more likely to actually perform the behaviour than individuals with no intention. On the other hand, this means that if individuals or households lack the intention to use financial services, even where there are no access constraints, their likelihood of using them could be low. Demirgüç-Kunt et al., (2009) suggest non-usage of financial services can be attributed to voluntary self-exclusion. Some surveys report non-usage of financial services by households to be associated with their lack of interest in financial services. For example, FinScope (2013) reports 27% of non-users in Tanzanian urban areas self-report that they do not use financial services because they have no interest in them.

Following the theory of planned behaviour (Fishbein and Ajzen, 1975; Ajzen, 1991), it is argued that the intention to use financial services is determined by attitudes towards financial services, subjective norms and perceived behavioural control. Allport (1937) defined attitude as a mental or neural state of readiness, organised through experience, exerting a directing or dynamic influence on individuals' response to a situation. Similarly, Ajzen and Fishbein (1975) refer to attitude as a depiction of individuals' general feeling of like or dislike of an object. Additionally, the feeling of like or dislike develops as a result of the person's evaluation of an object (Pratkanis et al 1989). Attitude, as a mental state of evaluating the attributes of financial services, may result in perceiving financial services to be favourable or unfavourable. On this basis, it is argued that holding relevant attitudes towards financial services will stimulate relevant intentions. For example, holding a positive attitude that financial services offered by financial institutions are crucial for everyday life increases the likelihood of intending to use them. Similarly, social influence (subjective norms) on financial issues affects the intention to use financial services. For example, one's intention to use or not financial services could be influenced by family, peers and society. On the other hand, the role of social influence can be observed in the flourishing of microfinance services, including the informal financial services. Group mode of operations accommodates norms and networks in the society. This reflects the role of social capital (see Guiso et al., 2004; Rankin, 2002). Perceived behavioural control predicts the intention to use financial services. As explained earlier, perceived behavioural control reflects the availability of opportunities and resources that stimulate intention and performance of behaviour. With regard to the use of financial services, individuals or households who perceive they have ability of using financial services would be more likely to use financial services.

For instance, a person who possesses financial knowledge would be more likely to intend to use financial services due to her or his confidence and ability to make informed decision. Cole et al., (2011) points out that being familiar with financial products influences the demand for such products.

Although perceived behavioural control influences behavioural intention, it also has direct influence on the actual behaviour. According to Ajzen (1991 pg 184) 'holding intention constant, the effort expended to bring a course of behaviour to a successful conclusion is likely to increase with perceived behavioural control'. As discussed in section 3.3, the likelihood of using financial services can be stimulated by households' perceived control of using financial services. When individuals or households have developed intention and perceive the usage of financial services to be within their control, their likelihood of using them is greater. It can be noted that perceived behavioural control influences both intention and actual use of financial services. Meanwhile, intention to use financial services is a mediator for attitudes toward financial services and subjective norms for their actual use. Regarding the relationship between behavioural constructs (attitudes, subjective norms, perceived behavioural control, intention and actual behaviour), section 3.5.1 discusses in detail the developed hypotheses. This addresses the research question '*what are the effects of household behavioural characteristics for intention to use financial services and subsequent actual use of financial services?'*

**Figure 3.4: Behavioural Conceptual Frameworks for the Use of Financial Services**



### 3.5.1 Hypothesis

**Attitude and intention to use financial services**

According to TPB, attitudes toward behaviour are among the constructs that predict the intention to perform behaviour. Ajzen and Fishbein (1975) describe attitude as the portrayal of feeling of like or dislike toward an object or behaviour. Such feeling is a product of evaluation of the benefits of the object or behaviour. In terms of demand for financial services, attitudes towards financial services refer to individuals' evaluation of financial services as being either favourable or unfavourable. As described in the previous section, attitude towards behaviour affects the intention to perform behaviour. The following hypothesis for examining the effects of attitude towards intention is established.

***H 1*** *There is relationship between households' attitude towards financial services and intention to use financial services.*

**Subjective norms and intention to use financial services**

Subjective norm is another human behaviour construct postulated in the theory of reasoned action and the theory of planned behaviour. It defines the role of social influence on individuals' behaviour. Individuals' behaviour may correspond to the social environment surrounding them. Ajzen (1991) explains that subjective norms are associated with normative beliefs concerning the approval or disapproval of the behaviour by people who have influence over them. Manning (2009) points out that individual behaviour is inevitably subject to social influence. Their decision can be influenced by other people's decisions. What is being done by an influential person may be copied by other people. This also relates to the influence of family and community interaction, where the individual may put value on their communal practice. Aronson et al., (1991) state that there is power of social environment. Individuals consider what is going on in their community. If an idea has been accepted in the community, almost every member of that community would feel proud to agree with it. Individuals would follow suit. In that case, social pressures on household financial behaviour, and demand for financial services, have to be considered.

Granovetter, (2005) puts emphasis on the relationship between social relations and economic decisions. He explains that the influence of subjective norms in economic decisions is centred on the flow of information and quality of information. Individuals may acquire economic related information through their friends, family or community they belong; the acquired information through social networks is better understood than information from an impersonal sector. In addition, the influence of subjective norms and financial decision making can be linked to the acquisition and implementation of opinions acquired from influential persons or groups (Umuhire, 2013), thus,

***H 2** There is relationship between household subjective norms and intention to use financial services.*

**Perceived behavioural control and Intention to use financial services**

In section 3.3, TPB and its components are discussed. According to Ajzen (1991), perceived behavioural control refers to availability of resources and opportunities that may stimulate or hamper intention on one hand, and behaviour on the other. In other words, the perceived behavioural control component is postulated to influence behaviour in two ways. Firstly, perceived control influences behaviour through intention, and secondly the perceived control has a direct influence on behaviour (see section 3.3, Ajzen, 1991 for details). In connection to the use of financial services, various financial resources and opportunities may enhance or inhibit the usage. Resources related to financial services include skills related to financial services, availability of financial services and other related factors. In this study, knowledge as a necessary skill for making decisions to use financial services is included. Knowledge about financial services gives opportunity to an individual to make an informed decision to use them. It can be considered to be a first step in the purchase of financial services as it facilitates informed decisions regarding products. Cole et al., (2011) point out that being familiar with financial products influences the demand for such products. Therefore, knowledge about financial services may predict the intention to use them (H3), and probably predict the intention and actual use of financial services. The field experiment about the determinants of demand for financial services in the emerging markets by Cole et al., (2011) show that financial literacy is associated with behaviour.

***H 3*** *There is relationship between perceived behavioural control and intention to use financial services*

**Intention, Perceived Behavioural Control and Use of Financial Services**

The theoretical background of TPB postulates that the performance of behaviour is influenced by the intention (Fishbein and Ajzen, 1975; Ajzen, 1991). Intention to perform behaviour refers to the plan, willingness and efforts one assumes towards the attainment of the intended behaviour/goal (Ajzen, 1991). In this regard, individuals do engage in what they intend to do, and may avoid engagement in what they do not intend to do. Similarly, the use of financial services can be predicted by individuals' intention. If an individual intends to purchase financial services s/he may start by making enquiries related to financial services, seeking opportunities that enhance the use of financial services. As more efforts are being exerted in finding out how to participate in related opportunities about financial services, the probability of attaining the goal is increased. In their study on family financial decisions in family firms, Korrop et al., (2014) found that intention effectively affects financing choices. Similarly, if individuals or households have a strong intention to use financial services, they are more likely to actually use them. Apart from this, in other field of behavioural studies the intention construct has been confirmed to predict the performance of behaviour; see, for example, Petrea (2001) in agriculture, Rhode et al., (2006) in children's engagement in physical activity. Thus, it is possible that the use of financial services can be predicted by individuals' intention to do so. In this case, intention to use financial services is an independent variable for predicting the usage of them. Thus,

***H4*** *Intention to use financial services influences the actual use of financial services.*

Furthermore, the theory of planned behaviour indicates that the performance of behaviour may not only depend on intention to perform behaviour; the performance of behaviour is subject to perceived behavioural control (Ajzen, 2006; Ajzen, 1991). As discussed in section (3.3) and in the previous section, perceived behavioural control refers to factors that may facilitate or inhibit the performance of behaviour. According to Ajzen (1991), the stimulation or constraints to perform behaviour may be a result of factors such as skills required for performing behaviour, availability of resources, and time related factors. Individual financial skills, availability of financial services, affordability of financial services, and ability to meet documentation requirements may affect demand for financial services (these have been discussed in sections 2.7 and 4.7 in chapters 2 and 4 respectively). In this regard;

***H5*** *Perceived behavioural control influences the actual use of financial services*

## 3.6 Summary

This chapter has reviewed human behavioural theories and developed a conceptual model for understanding the role of behavioural factors for the usage of financial services. It is indicated, in the theories reviewed above, that demand for financial services can be explained by human behavioural theories. The theories of human behaviour which take into consideration the subjectivity of human psychology appear to be suitable for understanding the behaviour and consumption decision of typical person. Accordingly, the conceptual framework of the current study is built on the theory of planned behaviour. It is conceptualised that household behavioural characteristics, such as attitudes towards financial services, subjective norms and perceived behavioural financial control, affect the intention to use financial services and their subsequent actual use. On the other hand, the formation of household behavioural factors for the use of financial services is connected to the beliefs held by households about financial services and their own financial experiences. Therefore, the carrying out of behavioural conceptual framework developed in the current chapter offers a contribution to the demand for financial services literature. The findings presented in chapters 6, 7 and 8 offer potential inputs to financial inclusion initiatives for increasing use of financial services, and subsequent effects on economic well-being. Additionally, the findings about Tanzania as one of a least developed countries can be replicated to similar countries, with the same context.

The next chapter provides an overview and critical analysis of the Tanzanian economy, financial sector and the usage of financial services.

# CHAPTER 4 : TANZANIA; CONTEXT, ECONOMY AND THE USE OF FINANCIAL SERVICES

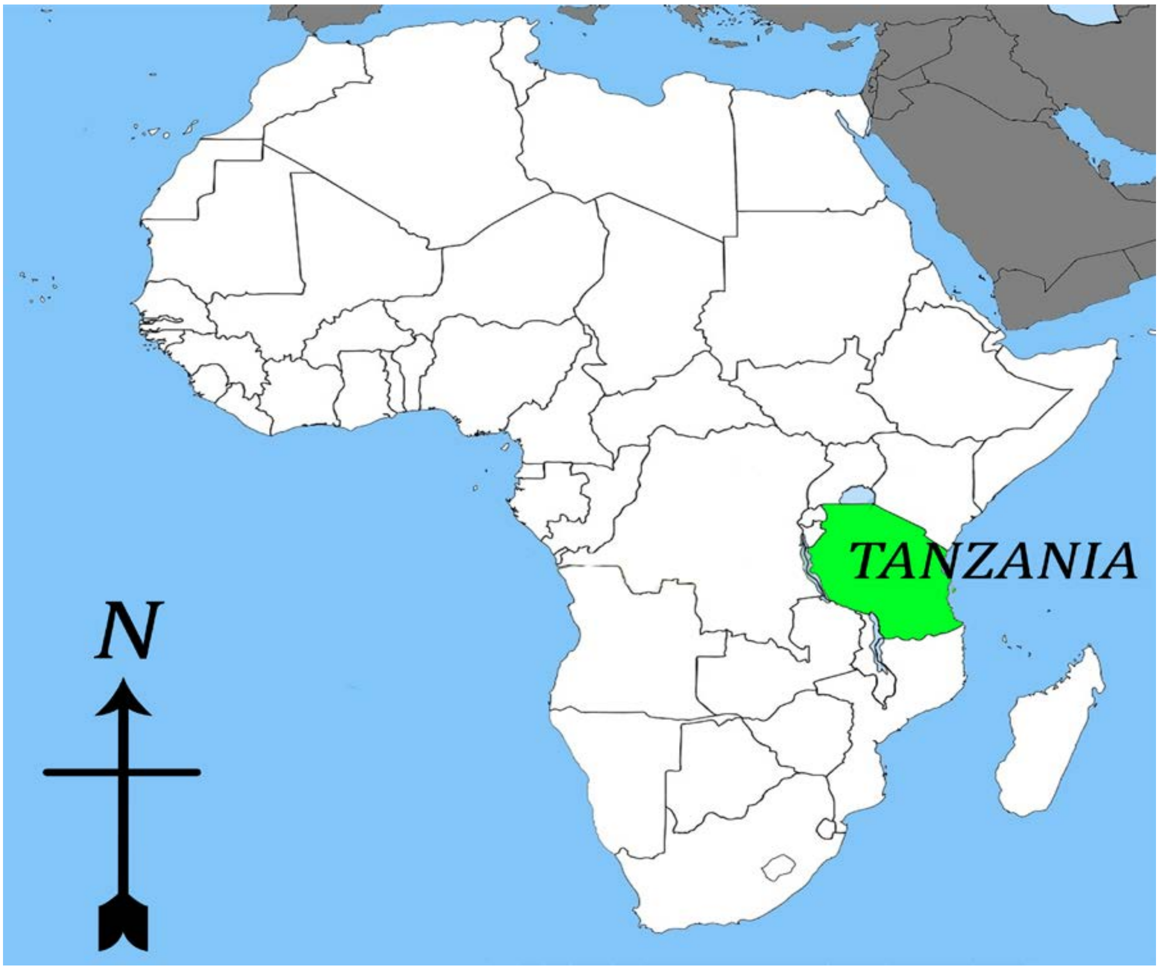
## 4.1 Introduction

This chapter discusses the background information about Tanzania as the research setting for the study. Understanding the role of household behaviour in the use of financial services requires a review of the status of the financial sector, the economy, the use of financial services and existing challenges for the use of financial services. In this context, the undertaking of the study in Tanzania is further justified. Therefore, the aspects of the Tanzanian financial sector, economy and use of financial services are critically discussed. Accordingly, section 4.2 provides an overview of the economy, while sections 4.3 and 4.4 discuss the association of financial development and economic wellbeing. Section 4.5 presents the financial initiatives employed for enhancing use of financial services. Financial institutions and use of financial services are discussed in section 4.6. Barriers to access to and use of financial services are discussed in section 4.6 and 4.7 respectively.  The summary of the chapter is presented in section 4.8.

## 4.2 An Overview of the Tanzanian Economy

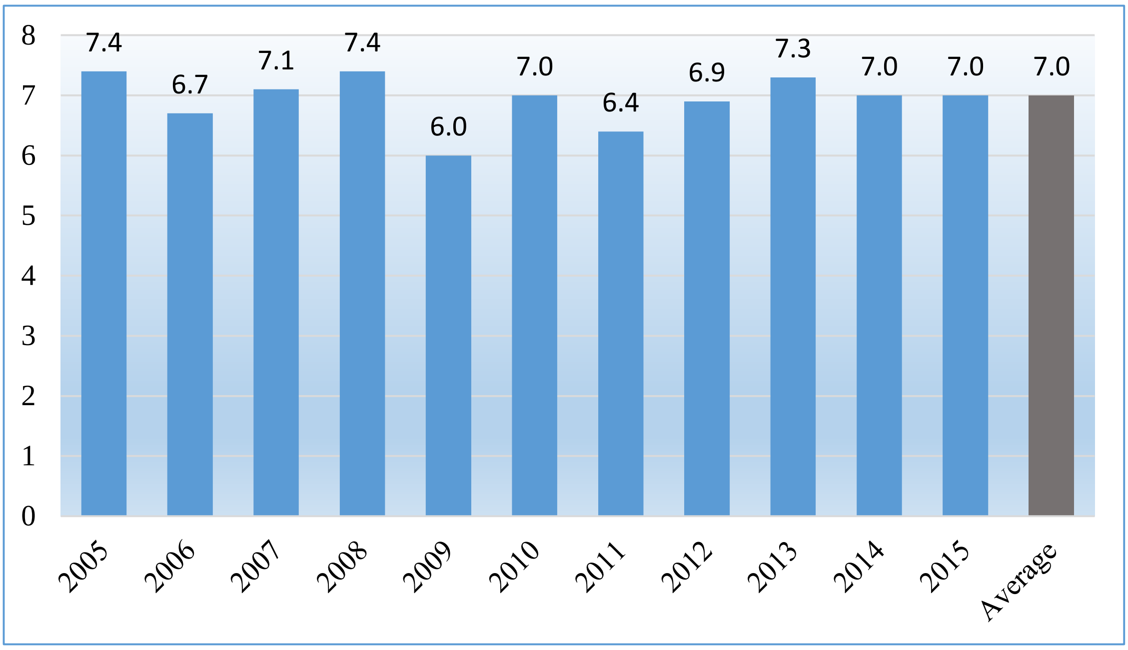
The Republic of Tanzania is consists of two states, mainland Tanzania and Zanzibar. The country is among the world's least developed countries. It is located in the eastern part of Sub Saharan Africa (see figure 4.1). Following the worldwide state of regional, economical and geographical integrations, Tanzania is one of the five East African community countries. Other East African Community countries are Burundi, Kenya, Rwanda and Uganda.

**Figure 4.1: Map of Tanzania- Africa**




Despite the fact that Tanzania falls in the category of low income and least developed countries, its economic growth has been strong in recent years. As indicated in figure 4.2, the real GDP growth rate has been ranging from 6.0% to 7.4% from 2005 to 2015. As explained earlier, in these recent years Tanzania has recorded a strong economic growth averaging 7% real GDP growth rate per annum. However, the reality about Tanzania and her population is that the country is still a low income and least developed country. Moreover, despite such strong economic growth rates, poverty is still a challenge to Tanzanians. For instance, based on international poverty lines, 43.2% of Tanzanians live below the poverty line (World Bank, 2014a). Nevertheless, poverty reduction in relation to the recorded economic growth rate is not encouraging. See, for example, in Figure 4.3 the trend in basic needs poverty incidence deteriorated from 14.8% to 21% from 2008/2009 to 2012/2013, as opposed to the increase in real GDP in the respective years. In addition to the importance of an increase in the usage of financial services, which can facilitate economic growth as well as poverty reduction, an attention should be paid to the reported linkages between economic growth rate and poverty. Soubbotina (2004) describes that having a high economic growth while there is poverty increases income inequality and can be socially unsustainable.

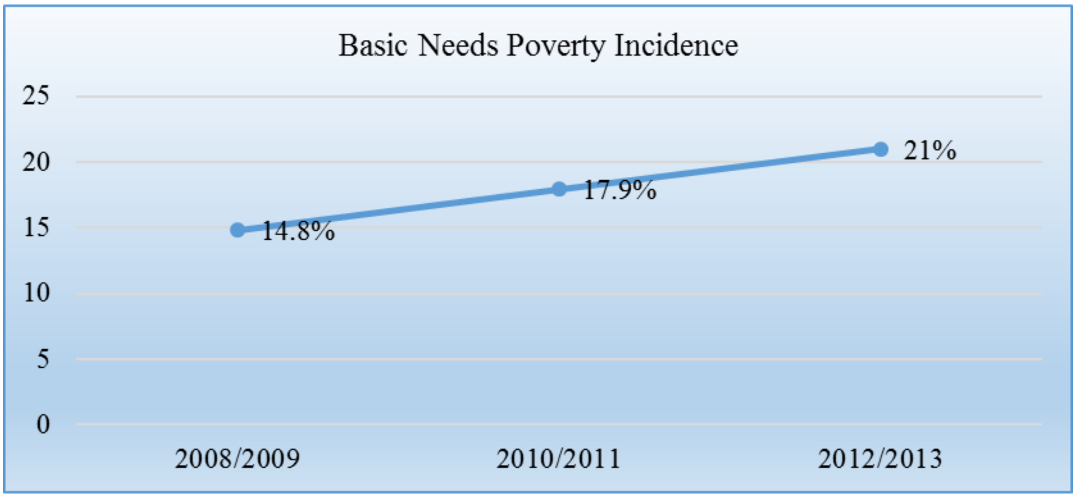
**Figure 4.2 : Real GDP Growth Rate in Percentage (%) 2004-2015**




Source; *Bank of Tanzania 2008, 2013 and 2016, compiled by author*

Likewise, figure 4.4 shows the income distribution disparity measured by GINI coefficient. It is observed that inequality increased from about 36% in 2008/2009 to about 39% in 2012/2013. That means the gap between the rich and poor increased despite the strong economic growth. Accordingly, the Economic Commissions for Africa (2016) report the findings of the survey in Tanzania on perception of living conditions, conducted in 2014/2015, which was that 63% of respondents considered their living condition to be fairly bad or very bad. One can suggest that the economic growth in Tanzania alone is not sufficient to ensure the economic well-being of its people. Therefore, efforts for improving economic growth should also consider the balancing of income distribution in the country.

**Figure 4.3: The Trend of Basic Needs Poverty  Incidence in Tanzania**




Source:  *URT (2014) graph by author*

**Figure 4.4: The Trend of Gini Coefficient trends in Tanzania**


Source:  *URT (2014) graph by author*

## 4.3 The Achievement of Economic Initiatives

Tanzania has engaged in various strategies aimed at boosting economic growth as well as poverty reduction. These can be traced back to The Arusha Declaration in 1967. The Declaration was driven by a motto 'Ujamaa na Kujitegemea', which means Socialism and Social self-reliance. This was initiated by the first president of Tanzania, Julius Kambarage Nyerere (called Baba wa Taifa i.e., the Father of the Nation). Among the objectives of the declaration was the enhancing of economic growth and ensuring social well-being. Following the Arusha Declaration, all means of production and exchange were subjected to state and public ownership. If the strategy were to work, it could have eliminated the problem of inequality. There were some achievements, for example nationalisation of all sectors including the financial sector and equality in access to public services (Nyerere, 1977), but the ideology failed. Ten years after the Arusha Declaration, inequality in various aspects still existed. Most Tanzanians were still experiencing poverty, and the agricultural economy of the country was still dependent on unreliable weather (Nyerere, 1977). Nyerere (1977) declared the impossibility of achievement in his report ‘We have not reached our goal; it is not even in sight’ (Nyerere, 1977 page 2). As with other socialist and communist countries (e.g. Russia and China) the failure of socialism is subjected to endogenous and exogenous factors (Szelenyi and Szelenyi, 1994). The reasons for the failure of socialism include the failure of ideological policies, and world market pressures (see Szelenyi and Szelenyi, 1994 for discussion).

The failure of the Arusha Declaration was also associated with the economic crisis and financial crisis in the 1970s and early 1980s. Komba (2010) outlines the causes of economic crisis, including the world oil crisis, the Ugandan war, droughts, and the collapse of the first East African community. In connection to this, the country engaged in economic reforms from the 1980s, which continued in various phases depending on their performance and demand for further reforms. The first phase was the Economic Recovery Program in 1986-1989 which was initially adopted to manage the ongoing economic crisis (Bigsten and Danielsson, 1999). The Economic Recovery Program included the liberalisation of the Tanzanian economy, increase in food and crop production and supporting productive activities (Wangwe, 1999). The second phase of reforms was the Economic Social Action Programme 1986-1992. This was built on the first phase, with further extensions to deal with the social dimension (Wangwe, 1999). In addition to macroeconomic stability, exchange rate liberalisation reforms, banking systems, civil services, agricultural markets, the parastatal sector and government administration were included (Bigsten and Danielsson, 1999). Although these reforms managed to make some improvements in income per capita, the overall economic growth was not impressive. For example, GDP growth rate increased from 3.7% in 1989 to 7.0% in 1990, but deteriorated to 2.0% in 1991 (World Bank, 2014b). Similarly, GDP per capita improved from 0.6% in 1989 to 3.6% in 1990, and declined to -1.2 % in 1991.

Following deterioration in the economic wellbeing, the first National Poverty Eradication Strategy was initiated in 1998. This marked the beginning of the process of development of visions and other poverty eradication strategies. In connection with that, the National Strategy for Growth and Reducing Poverty (NSGRP I) was launched in 2005, followed by the National Strategy for Growth and Reduction of Poverty 2010 (NSGRP II), (see URT (2006) and URT (2010) for reference). The adoption of the afore-mentioned poverty reduction strategies is among the efforts of the government to simultaneously achieve acceleration of economic growth and reduction of poverty in Tanzania. As described earlier the general economic outlook in Tanzania regarding growth rate can be viewed as favourable. However, the state of income inequality and poverty makes the sustainability of economic growth questionable.

## 4.4 History of the Financial Sector in Tanzania

The structure of the financial sector of Tanzania reflects its inheritance from the era of colonialism and the country's efforts in developing a financial system. Tanzania, which was formerly Tanganyika, has been under two different rules. The first was German rule. After the First World War, the country was under British rule. Under both rules, a small number of banks were established (see for details Bank of Tanzania, 2011). Additionaly, the British rule established an East African Board of Currency in 1919 to take control of monetary policy (Bank of Tanzania, 2011). Set up primarily in the interest of colonialists, the established banks were not intended to benefit the country and its local people. Mutaitina (1999) points out that colonial era banks were established to finance external trade rather than local economic activities. Although the established banks were more aligned to the interests of the rulers, their advantages to the country cannot be overlooked. They paved a way for the further establishment of banks, which are crucial for the economy; prior to colonialism, history does not tell us if there were any local banks in Tanzania. However, it is possible that indigenous people had their own traditional ways of exchanging goods and services. Among the evidences of the importance of banks during colonial era is the increase of monetisation of the economy.

This resulted from the increase of bank establishments and branch openings (Bank of Tanzania, 2011).

After independence in 1961, Tanzania inherited the colonial banking system. The Central Bank of Tanzania was established in 1965 (Bank of Tanzania Act 1965), which was followed by the implementation of socialism and self-reliance ideology in 1967. Due to the socialism ideology banks were nationalised and set under state ownership. State ownership of banks and other means of production was thought to stimulate and strengthen the efforts of the developing economy. In addition, one would argue that nationalisation would have given opportunity to indigenous Tanzanians to have access to financial services. Unlike the colonial era and private banks prior to nationalisation, which were mostly used to serve colonialists and wealthy traders, (Kimei, 1987), the state owned banks were expected to reach out to the indigenous population. However, even after nationalism, it is reported that few banks and bank branches existed to serve a large population. For instance, World Bank (2014) indicates in 1989 less than one bank branch existed to serve 100,000 people. This prevented the financial sector from enhancing economic growth and social wellbeing.

## 4.5 Financial Reforms, Outcomes and Challenges

Tanzania, along with other developing countries, adopted financial reforms that went hand in hand with economic reforms for enhancing financial development and economic growth. The initial financial reforms started in the 1990s. However, prior to financial reforms, economic reforms of the 1980s had some influence on the financial sector. For example, the Economic Recovery Programme of 1980s opened the country's market which in one way or another affected the financial sector. Nevertheless, the financial reforms were undertaken in the1990s and are now recognised to be first generation financial sector reforms (Bank of Tanzania, 2008). The reforms followed the difficult situation in the economy as a result of the economic crisis in the 1970s and 1980s. Therefore, the adoption of reforms was sought to replenish the undermined performance of the financial sector, and to facilitate economic growth. Additionally, the reforms were intended to facilitate a favourable environment for the effective and efficient provision of financial services (Bank of Tanzania, 2008). In order to achieve the objectives, the reforms were implemented into series as outlined tables 4.1 and table 4.2 below.

**Table 4.1: First Phase Financial Reforms and Outcomes 1990-2002**

| | **Items included in Financial reforms** | **Respective Objective** | **The outcome of reforms** |
|---|---|---|---|
| **i** | The Banking and Financial Institution Act (BFIA) 1991 | Facilitation of efficiency through licensing of new banks | From 3 commercial banks pre reform to 27 Commercial banks in 2008 |
| **ii** | The Loans and Advances Realization Trust Act of 1991: | Rectifying the performance of banks related to non-performing loans through bank restructuring | Privatisation of state owned banks, and liquidation. E.g. CRDB, NBC and THB |
| **iii** | The Foreign Exchange Act of 1992: | Liberalisation of external trade and foreign exchange rate | Establishment of Bureaux De Change |
| **iv** | The Parastatal Sector Reform Commission Act 1993 | Privatisation and restructuring of public cooperation. | |
| **v** | The Capital Markets and Securities Act 1994 | Creation of an environment for establishment of capital market | Dar Es Salaam Stock Exchange Market was established in 1998. Till 2008, 9 companies were listed. |
| **vi** | The Bank of Tanzania Act of 1995: | Ensuring efficient and sound financial system through supervision | Establishment of Treasury Bills Market, TISS, |
| **vii** | The Insurance Act 1996: | Ensuring orderly operations of insurance firms, brokers and agents | Establishment of insurance firms from 2 to 17 insurance companies, from 1 brokerage company to 61, from 1 loss assessor to 29, and Reinsurance company in 2011 |

| | Items included in Financial reforms | Respective Objective | The outcome of reforms |
|---|---|---|---|
| **viii** | The National Microfinance Policy of 2000: | Ensuring efficiency and effective microfinance sector to facilitate access to financial services by the underserved | Miscellaneous Amendment Act 2003, and framework for microfinance regulation |

*Source: BoT (2008), table summarized by the author*

The First Generation Financial Reforms has led to some improvement in the financial sector with regard to outcomes outlined in table 4.3. It can be observed that the number of banks has increased. The capital market was established and is in operation. Insurance firms, which are essential for covering various life crises such as accidents and death, have mushroomed. Additionally, the microfinance regulatory framework has been established to enhance the performance of microfinance institutions towards reaching the underserved. Arun and Murinde (2010) recommend microfinance regulation for enhancing microfinance institutions' performance. Following the reform of microfinance, including the establishment of a microfinance regulatory framework, there has been an increase in microfinancing firms and microfinancing activities. Local microfinancing firms through cooperative societies increased, followed by the establishment of larger foreign microfinance institutions. For instance, PRIDE started its operation in 1994 and FINCA International in 1998. Both institutions have been famous and supportive in Tanzania. Today there are more than 36 institutions offering microfinance services (Bank of Tanzania/ Microfinance Institutions). Nevertheless, in the spirit of enhancing access to financial services, some commercial banks are also engaged in microfinance services. For example, Akiba Commercial Bank and National Microfinance Bank offer microfinance services. Section 4.6.2 provides further discussion about microfinance in Tanzania.

Despite the reported improvement in the financial sector, as discussed above, such improvements yielded insufficient outcome in facilitating economic growth and access to financial services. The report of the Financial Sector Assessment for Tanzania in 2003 identified that the financial reforms did not sufficiently improve access to financial services (FSAP, 2003). Access to financial services by the majority was still at a very low degree. For example, in 2004 commercial banks were 0.28 branches per 1000 sq km and 1.2 branches per 1000 adults (FAS, 2013). Moreover, even use of financial services in terms of deposits and loans was still low, as the number of deposit accounts in commercial banks was 73 per 1000, and borrowers from commercial banks averaged 10 per 1000 adults. Among the reasons for the first financial reforms not yielding sufficient financial access were the existing weaknesses. These included the existence of non-performing loans prior to reforms that had to be written off, inevitable closure of loss making bank branches and increases in minimum balance requirement set by banks under new ownership (FAS,2003). In other words, due to the historical characteristic of the financial sector, the first financial reforms could be considered as the initial stage for improving financial access. However, BoT (2008) explicitly pointed out the necessity of the second phase reforms as a result of inadequate improvement yielded by the first phase.

As outlined in table 4.2, the second-generation financial reforms put more emphasis on creating the necessary environment for effective and efficient financial system. Mkulo (2008) notes that the first phase financial sector reforms have been undertaken from the early 1990s to 2002. Based on the second phase, reforms can be assumed to have taken place since 2003. The second phase financial reforms included almost every important aspect for promotion and improvement of the financial sector. They evolve from creating required environment for providers to facilitation of usage of financial services. In terms of financial services providers, the reforms aim to enhance the financial system from sector right up to the financial market. They create an appropriate environment for microfinance firms/organisations, the insurance industry, pension sector, banking sector and capital markets. Meanwhile, with regard to use of financial services, the reforms intended to promote access to, as well as use of, finance by the low income market segment and rural areas. See for example, the reforms, by extending financial services to rural areas by *Strengthening Micro and Rural Finance*, could facilitate access to almost everybody in Tanzania, and increase use of financial services. Demirgüç-Kunt and Klapper (2008) defined access to financial services as the availability of affordable services, and usage is an actual purchase of financial services.

**Table 4.2 : Tanzania Second Generation Financial Reforms 2003**

| Reforms employed | Description |
|---|---|
| **Legal and Judicial Reforms:** | Strengthening institutional and legal framework for improving access to financial services |
| **Strengthening the Banking Sector:** | Facilitating sound and efficient financial sector |
| **Strengthening Micro and Rural Finance:** | Improving viability and sustainability of microfinance services and SMEs financial services |
| **Monetary Policy Reforms:** | Strengthening financial stability |
| **Reforming the Pension Sector:** | Improving efficiency and outreach of the pension industry, reaching out to the informal sector |
| **Developing Financial Markets:** | Promoting financial markets and improving public awareness |
| **Strengthening the Insurance Industry:** | Facilitating rigorous and competitive insurance industry with wider outreach |
| **Employment** | Placing appropriate labour laws related to financial sector human resources |
| **Land Administration** | Stimulating Legal and judicial infrastructure related to collateralisation of land and settlement |
| **Facilitating the provision of Long-Term Development Financing (LTDF)** | Promoting the availability of long term finance to enterprises, housing and infrastructure |

*Source: BoT (2008) summary by author*

Improving legal and institutional frameworks to ensure the smooth operation of the financial sector, and efficient use of financial services is another aspect of second generation financial reforms. The significance of this relates to the findings that a strong institutional framework facilitates financial development and usage of financial services. Beck and Levine (2008) point out that a strong institutional and legal framework plays a role in financial development and economic growth. The assessment of the effects of institutional factors on financial sector development in Sub-Saharan Africa by Anayotos and Toyoran (2009) confirms that institutional frameworks play a critical role, not only for financial development, but also for enhancing access to, and use of, financial services. Similarly, Osili and Paulson (2008) identify institutional framework to be a potential tool that indirectly affects the use of financial services through beliefs and perceptions about the trustworthiness of the providers of financial services. Furthermore, the second phase reforms promote capital markets to the point of facilitating public awareness of the operation of financial markets and the use of these markets for investments. Promoting financial markets provides more opportunity for usage of financial services. Schizas (2012) argues that the operation of capital markets offers a diversified source of access to finance.

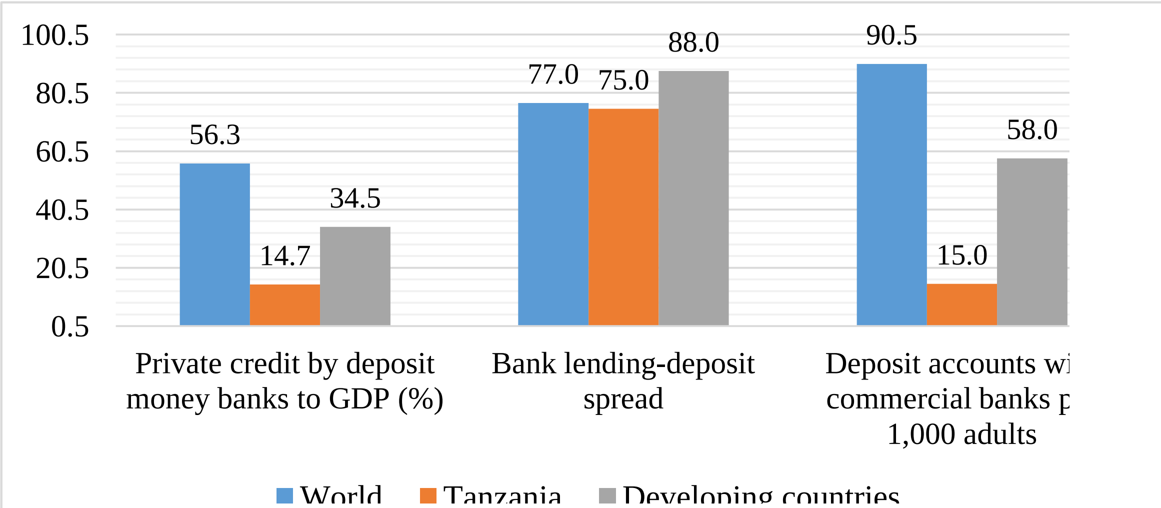
Following generation of the second financial reforms, the country has witnessed some improvement in the legal and institutional framework relating to the amendment of the Bank and Financial Institution Act 1991, which was replaced by the Bank and Financial Institution Act 2006 (BAFIA, 2006). The new act intended to foster safety of deposits for users of financial services. Ensuring safety of depositors' funds is essential for instilling trust and attracting the use of financial services. On the other hand, lack of trust could constitute a barrier to the use of financial services that is very difficult to overcome (Allen et al., 2015).The FinScope survey 2006 and 2009 indicate trust in bank financial institutions, in response to the question assessing trust in banks, indicate an improvement from approximately 54% to 56%.

Furthermore, the regulatory and supervisory environment of microfinance institutions has been enhanced after the second financial reforms. This related to the promotion of national microfinance policy 2003 to the establishment of licensing and supervision of microfinance institutions under the BAFIA 2006 and Microfinance Companies and Micro-Credit Activities regulations 2005 (Rubambey, 2005). The importance of such a microfinance legal framework reflects the potential of the mainstreaming of microfinance in the financial system, ensuring the development of a broader financial system which includes a variety of sustainable financial institutions, and facilitates access to diversified financial products (Rubambey, 2005). This also provided an opportunity for qualifying MFIs to acquire licences, under the given regulations, for a chance of accepting deposits from the public. BoT (2015) reports that there are 3 licensed deposit-taking microfinance companies. However, the general picture of the implementation of reforms, in relation to legal and regulatory frameworks, appears to be doubtful. The National Financial Inclusion Framework (2014-2016) indicates that the existing framework does not facilitate easy use of financial services by low-income households.

As discussed in the previous paragraphs, the first phase of financial reforms in the early 1990s, and the second phase in the 2000s, have made some improvements in financial development. However, such achievement is challenged by the current state of inefficient use of financial services (see discussion in the next section 4.6). Claessens and Perotti (2007) identify that, even if the financial depth is considered to stimulate economic growth, where there are few households who use financial services because of lack of access, the quality of the growth will be very low. Thus, financial development can be valued if it facilitates a broader use of financial services.

On the other hand, the confidence for improvement can be evaluated relative to peers or given benchmarks. To examine the strength of financial development for enhancing the use of financial services in Tanzania after financial reforms, the benchmark suggested by Čihák et al., (2013) is used. This offers a comparison of performance of the financial system related to access and efficiency use of financial services, by comparing them to the benchmark for developing countries and the world. Figure 4.5 indicates that the use of financial services, measured by deposit accounts with commercial banks per 1000 adults, and financial depth indicated by the ratio of private credit by deposit money banks to GDP, are below the developing countries' benchmark as well as the world benchmark. Meanwhile, the spread between lending and deposit appears to be within the world average and above the average of developing countries. To that point, financial reforms have not yet attained the acceptable level in terms of use of financial services and financial depth. This means that policy makers and the government still have to work out what factors constrain the use of financial services. The importance of this relates to the state of income distribution and the rate of poverty, as discussed in sections 4.1 and 4.2. Although there is still debate on the link between financial development (financial depth) and poverty reduction (Odhiambo, 2008), the extensive body of literature confirms the negative link between financial depth and poverty on one hand, and inequality on the other hand (Honohan, 2008; Imboden, 2005). This means that increasing usage of financial services can decrease the gap in income distribution and reduces poverty. Similarly, Fole et al., (2006) and Beck et al., (2007) confirm the effects of access to financial services for reducing poverty and income inequality. Therefore, inefficiency in depth of finance and non-use of financial services can be deemed to be the reason behind the current rate of poverty and income inequality in Tanzania. Odhiambo (2005) recommends further financial development in Tanzania in order to monetise the economy. As discussed in chapter 2 subsection 2.4.1, care has to be undertaken in developing the financial sector, if not properly aligned it can lead to exclusion of the marginalised(see for example, Kim and Lin, 2011; Greenwood and Jovanovic, 1990).

**Figure 4.5: Benchmarking Financial Depth, Efficiency and Access to Financial Services**




*Source: GFDD, 2014, benchmarks (Čihák et al, 2013), computations by Author*

## 4.6 Financial Institutions and Use of Financial Services in Tanzania

### 4.6.1 Formal financial Institutions

Formal financial institutions refers to financial institutions licensed and regulated by the national financial regulatory, specifically the Bank of Tanzania. This includes commercial banks, other non-commercial bank financial institutions, and microfinance institutions that have been licensed to take deposits and are regulated by the Bank of Tanzania. Formal financial institutions offer financial services such as bank accounts, savings, credits, investments and payment services. Commercial banks accept deposits that are payable on demand and/or are transferable by cheques. Meanwhile, other non-commercial bank financial institutions accept other forms of deposits, e.g. savings and time deposits but not demand deposits.

As table 4.3 indicates, there is positive growth in formal financial institutions. The number of commercial banks increased from 22 in 2005 to 34 in 2014. Other non-commercial bank financial institutions have increased from 10 in 2005 to 16 in 2014. Total bank branches (i.e., commercial banks and other bank financial institutions) have increased from 241 to 702 for the respective years. This means access to financial services have improved from 1.2 bank branches per 100,000 adults to 3.4 bank branches per 100,000 adults. Additionally, deposit amounts collected from the public increased from TZS 3,499 billion in 2005 to TZS 17,524 billion in 2014. Similarly, loans and advances increased from TZS 1,446 billion in 2005 to TZS 11,886 billion in 2014. The spread between lending rate and deposit has decreased from 11% in 2005 to 3.7% in 2014. The narrow bank lending spreads facilitate household access to the credit services (Beck and Cull, 2013). The reported improvement could be a result of the financial reforms from the first phase and the second phase.

**Table 4.3: Financial Development and Access to Financial services**

| Formal Financial Sector | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Commercial banks** | 22 | 22 | 24 | 25 | 27 | 28 | 31 | 32 | 34 | 34 |
| **Other Bank Institutions** | 10 | 10 | 10 | 11 | 13 | 14 | 17 | 16 | 16 | 16 |
| **Bank Branches** | 241 | 256 | 338 | 393 | 430 | 473 | 503 | 556 | 642 | 702 |
| **Number of bank branches per 100000 adults** | 1.2 | 1.3 | 1.7 | 2.0 | 2.1 | 2.3 | 2.5 | 2.7 | 3.1 | 3.4 |
| **ATMs** | n/a | n/a | 719 | 867 | 917 | 995 | 1117 | 1361 | 1526 | 1610 |
| **Deposits (Bil. TZS)** | 3499 | 4481 | 5577 | 6753 | 8229 | 10295 | 11964 | 13546 | 15370 | 17524 |
| **Loans, Advances** | 1446 | 2013 | 2881 | 4276 | 4649 | 5548 | 7157 | 8465 | 9914 | 11886 |

| Formal Financial Sector | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|---|---|
| and Overdrafts (Bil. TZS) | | | | | | | | | | |
| Spread (%) | 11.1 | 8.6 | 8.7 | 13.2 | 12.2 | 15 | 15 | 4.1 | 2.5 | 3.7 |

n/a; data not available

*Source; BoT Banking Supervision Annual reports 2006, 2008, 2010, 2012 and 2014; calculation and summary by author*

#### 4.6.1.1 Usage of formal financial Services

Based on FinScope Surveys (2006, 2009 and 2013), there is some improvement in the usage of financial services. Referring to table 4.4, the usage of formal financial services has improved from 9.1% of the adult population in 2006 to 13.9% in 2013. This is in terms of use of bank products such as accounts, savings and credits. Although such increase in the usage of financial services from 2006 to 2013 has a positive mark, in a broader view the scale of usage of financial services in a country is not attractive considering the importance of financial services (see discussion in chapter 2). On the other hand, the adoption of mobile money services (mobile phone-connected financial services) and the usage of semi-formal financial services has shown a remarkable increase from as low as 2.1% to 43.5% in the respective years. As is discussed in section 4.7, the adoption of mobile telephone technology for money services has, to some extent, eliminated the physical barriers to accessing financial services, facilitating greater access to them through phone subscription. However, the majority usage of mobile money services relates more to payment services and less to saving and borrowing (Economides and Jeziorski, 2016; BoT, 2013).

Additionally, the usage of insurance and social security facilities show some improvements. FSDT (2013) reports an increase of usage of insurance services from 6.3% in 2009 to 13% in 2013. The improvement in the usage of insurance services could be a result of the financial reforms that include facilitation of rigorous and competitive insurance industry with wider outreach (outlined in table 4.1 and 4.2).Specifically the establishment of Tanzania Insurance Regulatory Authority (TIRA) in 2009 has facilitated the growth of in a number of insurance firms and increased awareness to the population about insurance services (TIRA, 2010) which could be believed to have increased their usage. Meanwhile, the usage of social security services is still at a very low degree. The International Labour Office (2014) reports less than 1% of the Tanzanian population are covered by social security (pension services) for 2013. While, the share of the economically active population planning their retirement benefits through pension schemes is 3.3%. Some of the common reasons for the lower degree of use of formal financial services relates to access barriers to be discussed in section 4.7.

**Table 4.4: The trend of Use of financial services in Tanzania**

| **Use of financial services** | **2006** | **2009** | **2013** |
|---|---|---|---|
| Use Formal financial services (%) | 9.1 | 12.4 | 13.9 |
| Use Semi-formal financial services (MFIs, SACCOS) (%) | 2.1 | 4.3 | 4.5 |
| Use Semi-formal financial services (including mobile money services) (%) | n/a | n/a | 43.5 |
| Use informal mechanism only (%) | 35.1 | 27.3 | 15.8 |
| Excluded from both formal and informal financial services (%) | 53.7 | 56 | 26.7 |

*Source: FSDT, FinScope Survey 2009 and 2013, summary by author*

### 4.6.2 Microfinance Institutions

The microfinance sector in Tanzania is fragmented. It comprises of i) microfinance institutions registered under the cooperative societies acts; ii) microfinance institutions registered under the Non-Government Organisations Act iii) Microfinance deposit taking institutions licensed and subject to regulation and supervision under Banking and Financial Institutions Act 2006, administered by the Bank of Tanzania, and iv) the informal financial services. Microfinance institutions registered under the Cooperative Societies Act include member based organisations such as Savings and Credit Cooperative Societies (SACCOS). As described in chapter 2 section 2.2, both MFIs registered by Cooperative Act and Non-Government Organisations belong to semi-formal financial institutions. MFIs licensed and regulated as deposit takers by the Bank of Tanzania are referred to as formal financial institutions (see also Rubambey 2005). So far there are three MFIs licensed and supervised as deposit takers. Conversely, other microfinance services based in the community and not subject to any government registration, reflect the informal financial sector. However, the data related to MFIs appears to be disjointed because there is not yet a single collection of all MFIs data. The researcher secured MFIs information from various sources, including Microfinance Information Exchange (MIX), Tanzania Association of Microfinance Financial Institutions (TAMFI) reports and reports from the Bank of Tanzania.

Table 4.5 presents the overview of the trend of microfinance services retrieved from MIX Market. The information used relates to MFIs report for particular years. MFIs detailed here include both MFIs licensed as deposit takers and financial NGOs. Although the information used does not represent the whole microfinance sector (see for example TAMFI reports more than 90 MFIs members with no current information about their customer base, loan portfolio, deposits and the related, meanwhile there are less than 40 MFIs whose information are available with MIX ), they provide a partial picture indicative of the trends in MFIs in Tanzania. Accordingly, the data represents the top market share of the market. It hence, indicates the formalisation of the microfinance sector.

The growth in MFIs services is improving. The number of borrowers increased from 151,255 in 2004 to 349,321 in 2010 and slightly decreased in 2014. Similarly, the amount of loans disbursed has grown from about TZS 3,214,807 to about TZS 56,267,207 for 2004 and 2014 respectively. The decrease in number of borrowers, borrowing amount and deposit amount for the years 2012 and 2014 reflects lack of information from some of the reported MFIs. In addition, the number of deposit accounts portrays improvement. They indicate an increase from about 63,668 to 377,763 deposit accounts for 2004 and 2014 respectively. Accordingly, the amount of deposits collected ranges between TZS 30,227,088 and TZS1,251,470,755 for 2004 and 2010 respectively. Despite the fact that the number of MFIs that reported to Mix Market is small, the sector extends in terms of the number of microfinance providers. For instance, Kitala and Kayunze (2014) report the increase in SACCOS from 3 in 1961 to about 5478 in 2014, with 935,121 members; the total amount of loan disbursed is TZS 778.4 billion and the total value of savings and shares was TZS 451.1billion.

**Table 4.5: Access to Microfinance Services**

| Fiscal Year | 2004 | 2006 | 2008 | 2010 | 2012 | 2014 |
|---|---|---|---|---|---|---|
| No. Of MFIs Reported | 9 | 11 | 12 | 14 | 9 | 9 |
| Number Of Active Borrowers | 151,255 | 195,096 | 197,315 | 349,321 | 269,928* | 348519* |
| Borrowings Amount In TZS | 3,214,807 | 10,905,409 | 24,159,241 | 20,787,666 | 7,422,623* | 56,267,207 |
| Deposits (Amount In TZS) | 30,227,088 | 33,625,386 | 927,612,303 | 1,251,470,755 | 122,849,296* | 186830775* |
| Number of Deposit Accounts | 63,668 | 91,036 | 192,102 | 377, 763 | 364,012 | 575,863 |

* Some participants who previously reported did not report in the respective year

*Source; MIX online data (accessed in March 2017)*

### 4.6.2.1 Usage of microfinance services

The FinScope national survey about usage of financial services also specifically identifies usage of microfinance services. As shown in table 4.4, the usage of microfinance services provided by MFIs and SACCOS has improved from 2.1% in 2006 to 4.5% in 2013. On one hand, the reported improvement could be related to financial reform initiatives that promote microfinance services. However, such a degree of usage of microfinance services is not encouraging due to the the fact that microfinance is considered a strategy of broadening access of financial services to the underserved by the conventional banks in Tanzania.

The lower degree of usage of microfinance services might have been caused by several factors. One could be the concentration of microfinance institutions in urban areas, ignoring rural areas where the majority of Tanzanians live. Relatively, in Tanzania, a large percentage of the people living under the line of poverty level is in rural areas. Not serving rural areas not only slows the efforts of increasing usage of financial services, but also indicates indisposition to the microfinance original idea and theoretical perspective of serving the poor (Zaman, 2004; URT, 2000). If microfinance services are for the poor and underserved, then they would have expanded not only in urban areas but more into rural areas where there are more poor people who lack access to conventional banking services. On the other hand, the concentration of microfinance institutions in urban areas leads to sharing and overlapping of access to, and use of, financial services by clients with formal financial institutions. Banks and other non-bank financial institutions are concentrated in urban areas. Thus, the same clients are targeted for both microfinance and other conventional banking services. This leads to less differentiation between microfinance and other financial services providers.

On the other hand, the low degree of usage of microfinance services could be related to the MFIs' shortage of funds for increasing provision of services. Unlike other deposit taking financial institutions, which accumulate deposits to facilitate lending, MFIs which are not regulated by the Bank of Tanzania (the majority) are not allowed to take deposits from the public. This makes MFIs rely on funds from donors, bank borrowings and fees (Brown et al., 2015) which could be an insufficient source of funding for extending credit facilities compared with deposit taking financial institutions. Therefore, they are limited in outreach and usage of microfinance services by individuals and household may happen to be low.

### 4.6.3 Informal Financial Services

The informal sector in Tanzania is widely diversified. This includes finance from relatives, neighbours, money lenders, landlords, traders, rotating savings and credit associations (ROSCA) and Village Community Banks (see also Hyuha et al., 1993). These are the source of finance to the majority of individuals and households in Tanzania. This means that lack of access to, and use of, formal financial services does not lead to a total failure of meeting and managing finances by individuals and households. Table 4.4 shows a decrease in the usage of informal financial services (users of informal financial services only), which has decreased from 35.1% in 2006 to 15.8% in 2013. Nevertheless, the general usage of informal financial services (including formal and semi-formal users) is still prominent. For instance, FSDT (2013) reports that about 66% of the population may save their money at home (known as kibuku in Swahili), and about 10% of the population use trusted household members and friends to keep their savings. Meanwhile, 71% of the population meet their demand for short term credit by borrowing from friends and family members. The use of such mechanisms relates to how quickly individuals can access the savings/loans, affordability and the trust they have in lenders. Many surveys report the reason for non-use of formal finance to be related to insufficient income, high minimum requirements, fees and other eligibility criteria (see for example Demirgüç-Kunt et al., 2012). Ngendakuriyo (2014) found that household savings mobilisation in East Africa is concentrated more in informal mechanisms than formal and semi-formal mechanisms. Unlike formal services, informal services appear to be easily accessed by low income individuals and households, since they emanate among and within families and communities. Unlike access to formal financial services, Claessens (2006) argues that preference for informal financial strategies is related to non-pecuniary barriers. On the other hand, the reported decrease in the usage of informal financial services could be related to the increase in the usage of semi-formal financial services, as a result of the adoption of mobile money services' and promotion of microfinance services might have contributed to the decrease in the usage of informal financial services.

Despite the existing widely diversified informal financial sector in Tanzania, it is documented that informal financial services used by households appear to be weak and inadequate. This is because of lack of sufficient capital to operate, and lack of risk insurance. For instance, Maleko (2013) reports that weak capital bases and inadequate risk management systems are among the challenges facing informal financial service providers. Ayaggari et al., (2010) examined the efficiency of formal and informal finance in China. They indicated that access to formal financial services is more associated with growth of firms than use of informal financial services. The researcher does not assert that informal financial services are worthless. However, based on the weakness and limitation of the informal financial sector, the emphasis is put on the use of formal financial services.

Considering the cumulative use of financial services, that is use of formal, semi-formal and informal financial services, financial exclusion is still pronounced. For instance, there is still more that 27% of the population who are formally, semi-formally and informally financially excluded (FSDT, 2013). For more details on the informal financial sector, and the use of respective financial services see Hyuha et al., (1993); Aryeetey et al., (1997); Kashuliza et al, (1998). Moreover, this study presents an analysis of alternative sources of financial services used by household participants in chapter 7 section 7.6.

## 4.7 Factors Affecting the Usage of Financial Services

Lack of access to financial services is among the factors affecting their usage in Tanzania. This is not unique considering the characteristics and similarity of financial development and economic growth in developing countries. One dimension of the barriers cited in other developing countries relates to supply constraints. Beck et al., (2006) document that supply side barriers include eligibility, physical access and affordability. Similar supply side barriers are considered to limit the use of financial services in Tanzania. Despite the improvements in the financial sector after the financial reforms, as discussed in section 4.5 and 4.6, the degree of improvement is still not sufficient to ensure broader access to finance. Physical barriers are prominent in Tanzania, as the number of bank branches is 2 per 100,000 people and the number of bank branches is 0.76 per 1000 square kilometers (FAS, 2013). A bank branch serving more than 50,000 people is not conducive for access, unless there is a full application of technology allowing for online services, which is not the case in Tanzania. Regarding this, about 71% and 82% of the urban and rural population, respectively, report that their access to financial services is constrained by eligibility and accessibility barriers. In addition, the scattering of bank branches has led to lack of awareness about financial services. Considering the problem of infrastructure in remote areas of Tanzania, knowledge and awareness are hindered. Approximately 66% of rural dwellers do not have knowledge about formal financial services (FSDT, 2013).

Other reasons for lack of use of financial services relate to lack of income and affordability. FinScope (2013) indicates that not being able to maintain the minimum balance is considered to be a barrier to the usage of financial services by 21% of respondents. This relates to low household levels of income and the high amount set by financial institutions for maintaining accounts. Table 4.6 offers a snapshot of the minimum amount for opening and maintaining bank savings account by six formal financial institutions, including the service fees and charges. Taking into the account of the poverty line of TZS 36,482 and the fact that 1.5% of Tanzanian population fall within the category (HBS 2011/2012 report) the minimum balance ranging between TZS 15,000 and TZS 50,000 is considered to be exorbitant. Similarly, the associated bank charges by the majority of financial institutions can be considered to be high. It is shown that withdrawal charges range from TZS 600 to TZS 1,000 per transaction for the majority of financial institutions, with the exception of one bank which does not charge transaction fee to its service. This can be considered to be expensive for the population living under the basic needs poverty line whose consumption expenditure per day is below TZS 1,216. Nevertheless, affordability and other needs for broader access to finance may not necessarily predict the use of financial services. For instance, about 27% of the urban population reported that they do not need financial services, along with 14% of rural dwellers (FSDT, 2013). This means that interest in financial services matters for usage. Accordingly, Beck et al., (2009) contend that access to financial services will not necessarily increase the usage.

**Table 4.6: Bank Account Minimum Balances and Bank Charges**

| **Financial Institution** | **Minimum Opening Balance** | **Monthly Fees** | **Transaction Fee (ATM Withdrawals charges)** |
|---|---|---|---|
| CRDB* | 20,000 | 1500 | 944 |
| NMB** | 15,000 | n/a | Free |
| Stanbic*** | 50,000 | 11,800 for below the balance | 900 |
| Standard Chartered*** | 50,000 | n/a | 750 |
| I&M bank*** | 50,000 | 1000 for below balance | 600 |
| CBA Bank*** | 50,000 | n/a | 1000 |

*year 2013, **year 2016, *** Website as at 17th March 2017; n/a refer data not available

*Source: Bank Websites and Tariffs Guide, summarised by Author*

On the other hand, the most pronounced problem for the use of financial services for the majority of Tanzanians relates to physical barriers. This relates to the branch network distribution, which is very low (see Table 4.3). However, recently, the increase in the use of mobile money services has, to some extent, eliminated the physical barriers. This is because mobile phones are used even in remote areas. There has been an increase in the number of mobile phone users, which also facilitated the usage of mobile money services. The number of mobile phone subscribers has increased from 13,130,602 subscriptions in 2008 to 28, 140,457 in 2014 (TCRA, 2008 and TCRA, 2014 respectively). Thus, about half of the total population has subscribed to mobile phone use. Using mobile phones to disseminate financial services would be worthwhile for increasing access. Regarding that, it is argued that the adoption of mobile money services in Tanzania would enable more than half of the population to have access to financial services. FSDT (2013) identifies that the landscape of access to, and use of, financial services in Tanzania has been significantly improved by the use of mobile money services. To a large extent, the reported decrease in financial exclusion from 56% in 2009 to 27% in 2013 might be associated with the innovations and increase in the usage of mobile services (FSDT, 2013). The increase in mobile money services compared to bank services is associated with the lower cost and convenience of services. Mobile money services were initially more about payment services. Currently, more financial services have been introduced in addition to payment services. These include services such as savings, credit and insurance services. For instance, M-Power services by Vodacom (savings and credit services) and Wekeza (Tigo pesa savings services). Despite the enlarged scope of the use of mobile money services through the introduction of mobile savings and credit, for example M-Power (Vodacom) and Wekeza (Tigo), most usage is still for payment. FSDT (2014) reports about 97% of users of mobile money services use them for payment, and only about 43% save money on their phones. Furthermore, Economides and Jeziorski (2016) identify that household saving through mobile money services is relatively for a very short time, as 90% of the money is withdrawn within 5days of being deposited. Additionally, less than 1% of users keep the money in the network for longer than a month (Economides and Jeziorski, 2016). Therefore, the adoption of mobile money services that are viewed to have increased financial inclusion does not reflect the broader usage of financial services by households. This reflects the need for understanding the determinants for the general use of financial services.

It could be worthwhile to discuss how behavioural perspectives on financial services in Tanzania affect their use in the country. As discussed in chapters 2 and 3, there are few studies that document the role of behavioural factors in the usage of financial services (see, for example, Annim et al., 2013; Osili and Paulson, 2008). Additionally, to the knowledge of the researcher, there is no such empirical study in the setting of Tanzania. This, additionally, indicates the importance of undertaking the current study. Although FinScope surveys have offered information about behavioural related attributes and attitudes, for instance 56% of the population trust bank financial institutions, it is not known if such behaviour influences the use of financial services. Therefore, the discussion about behavioural characteristics of Tanzanians, and the impacts of such behaviours are presented in the findings in chapters 6, 7 and 8.

## 4.8 Summary

The review of the financial sector, as well as the economy of Tanzania, reveals challenges related to increasing the use of financial services and the promotion of economic well-being. Three major issues are noticeable from the review; firstly, despite the strong economic growth rate, there is increase income inequality and basic needs poverty incidence. In such situations, use of financial services could be considered as a necessity. As discussed in chapter 2, access to finance and the use thereof, potentially decreases poverty (Beck et al., 2009). Bae et al., (2012) document that use of finance facilitates income distribution in the country. This supports the interest in studying the determinants of use of financial services in Tanzania.

Secondly, despite various efforts for increasing financial development and access to financial services, the degree of use of financial services is still very low. It has been observed that financial reforms have made some improvement in the financial sector by increasing financial depth, as indicated in the number of bank and bank branches. But most Tanzanians do not use formal financial services. Although the branch network is not sufficient even in the urban areas where financial institutions are available, the majority of individuals and households do not use them. On the other hand, non-use of financial services can not only be due to lack of access. FSDT (2013) reports 27% of urban dweller self-report that they do not need financial services and 14% of rural dwellers are not interested in financial services. Despite the promotion of the use of mobile money services for enhancing use of financial services, more than 55% of the population who hold mobile phones do not use mobile money services for banking services other than payments (FSDT, 2013). Indeed, Demirgüç-Kunt and Klapper (2009) argue that non-use of financial services should be considered in two dimensions, voluntary and involuntary exclusion. In this regard, the current study challenges financial reforms which are based on increasing financial development and access without taking into consideration the demand aspects. The current study offers input to financial reform initiatives by examining the role of the behavioural factors for the use of financial services in Tanzania.

The examination of effects of behavioural factors in the use of financial services in Tanzania by adopting the established conceptual framework presented in chapter 3, is considered to be significant to offer knowledge and for informing financial inclusion policy initiatives. Similarly, since the problem of non-use of financial services is reported in the majority of low income countries, the findings from Tanzania could be a mirror to other such countries.

The next chapter discusses the methodology approach undertaken to study household behavioural characteristics, and their influence on the usage of financial services in Tanzania. These include the discussion about research methods used for addressing the research questions.

# CHAPTER 5 : METHODOLOGY

## 5.1 Introduction

This chapter describes the research design and process used to achieve the aim of the present study. In chapter 3, the conceptual model illustrating behavioural constructs influencing the the use of financial services, and the interrelationship amongst them was introduced. However, the achievement of the aim and the subsequent testing of the conceptual model in an empirical studies requires a systematic research approach. Kothari (2004) defines research methodology as the means of solving research problems. Thus, the research methodology included aspects such as philosophical assumptions, the choice of research design, selection of samples and the whole research process are discussed in this chapter. Section 5.2 outlines and discusses the sources of data used and sampling procedures. Data analysis techniques used are described in section 5.3. The adherence to the research ethics, is reported in section 5.4. Section 5.5 provides a summary of this chapter.

## 5.2 Data Source and Sampling

Data is crucial for any research. Depending on the research problem, the author establishes and decides on the suitable data and relative source. Moreover, the availability of resources (human and financial), research time constraints and whether such data is available in a secondary source or not may determine the decision on data collection methods. The literature on access to and use of financial services suggests various sources of dat, including secondary and primary data. However, unlike the field of pure economics, where data at national levels are available for more than four decades, (refer to World Economic Indicators, World Bank, 2014b) data on the usage of financial services have been limited. For instance, Honohan (2008) argues that there is limited literature on access to and use of financial services, associated with a lack of data on the use of financial services. Among the reasons for limitation of data on determinants for the use of financial services at national and international levels is the fact that interest in the issue has recently emerged, following the need for improving economic wellbeing. Such emergence is parallel to the recognition of the importance of access to financial services for the reduction of poverty, inequality in income and economic wellbeing. Currently, there are initiatives that have been undertaken at national level. Various developing countries are taking steps to measure access to, and use of, financial services. For example, at national levels FinScope Surveys, at international levels Financial Access Surveys (FAS) and Global Financial Inclusion Indicators, World Bank. Individual researchers employ small scale surveys (for example Seluhinga, 2013; Cole et al., 2011 in Tanzania, India and Indonesia respectively). Referring to the aim of exploring the role of behavioural factors in the use of financial services and respective questions, this project employs both primary and secondary sources of data. The decision to use secondary and primary sources of data is based on the nature of the aim to be achieved and availability of data.

The readily available, nationally representative data conducted by FinScope Surveys in Tanzania is employed as a secondary data source to investigate the third research question. The available secondary data benefits this study as follows i) It suits the purpose of the study, as it provides important behavioural information for understanding the usage of finance services ii) it is the only available national representative data in Tanzania that has information about usage of financial services and behavioural information iii) since it is national data, it offers an opportunity for generalisation where internal and external validity would be confirmed. iv) it offers an opportunity to contribute to the body of literature by providing empirical findings, taking advantage of available household demand for financial services data, which is considered to be limited (Honohan, 2008). v) it Saves costs and time for the researcher, as well as the difficulty for the researcher to cover a large population. Meanwhile, primary data is used to answer the first and second research questions. This is advantageous as it offers original and rich data specifically serving the interest of the research project. The primary data is collected through financial diaries methodology, which involves both quantitative and qualitative data. These sources and associated features are discussed in the following sections.

### 5.2.1 Survey Based Data- FinScope Tanzania

The FinScope Tanzania National Survey data set for 2006 and 2009 was employed for addressing the third research question. The survey is concerned with measuring demand and access to financial services by individuals and households in Tanzania. FinScope

Surveys are financial services surveys managed by FinMark Trust. Recently, with the increase of interest in financial inclusion, FinScope surveys have been employed in a number of developing countries, for example Kenya, Uganda, Malawi, Zambia, Tanzania and some Asian countries. Honohan and King (2012) mention that FinScope Surveys have increased the data availability on access to financial services in African countries. In Tanzania, FinScope surveys are commissioned by the Financial Sector Deepening Trust (FSDT). FSDT is a Non-Governmental Organisation established with the aim of improving financial depth in Tanzania. It works in partnership with the Government of the United Republic of Tanzania, DANIDA, Foreign Affairs, Trade and Development Canada (DIFTAD), Department for International Development (DFID-UKAid), Swedish International Development Agency (SIDA) and the Bill and Melinda Gates Foundation. In support of the objective of developing deeper financial systems in Tanzania, FSDT employed FinScope to conduct a survey on access to financial services in Tanzania. According to FSDT, the survey on access to and demand for financial services was set to be conducted every two years. The first one conducted was in 2006, followed by the second in 2009. The survey offers a nationally representative source of data and is designed to provide insight on the demand, access and barriers to a full range of financial services available in the country.

Considering the importance of access and use of financial services, the purpose of the regular FinScope survey Tanzania is to identify demand for financial services and access barriers facing households in the country (Bank of Tanzania, 2015). Importantly, the survey intended to establish a benchmark for financial needs, and attitudes towards financial access strands (formal and informal financial services). It has a wide coverage of financial services consumption in a sense that it includes peoples' financial attitudes, perception and behaviour, demographic and social economic characteristics. In addition, it covers all major aspects of financial services such as transactions, savings, credit and insurance, and their respective financial strands. The results were intended to benefit government policy initiatives, financial services regulators, financial services providers, researchers and donors. It accommodates the current research on the determinants of access to, and use of, financial services, specifically the effects of behavioural factors.

The sample framework of data set is representative of the adults population in Tanzania aged 16 years and above. This covers the randomly selected cases from the entire population including rich and poor, urban and rural, all genders, Tanzania main land and Zanzibar (Bank of Tanzania, 2015). This includes randomly selected households, whereby one person from each identified household was interviewed. The sample size was 5000 and 7700 adults for 2006 and 2009 respectively. To ensure accuracy and representativeness of the sample, as suggested by Saunders et al., (2009) the survey sample frame is based on National Master Plan estimates by the National Bureau of Statistics. Thus, the data set has taken into consideration the changes of population statistics in Tanzania, and thus ensures national representation.

The data was collected through both qualitative and quantitative methods (FSDT, 2006). Qualitative methods used include focus group discussions, in-depth interviews for testing the concepts of access and demand for financial services. However, the current study could not obtain feedback information from the conducted focus group discussions and in-depth interviews. It appears that the qualitative methods of data collection were used for testing the respondents' understanding of the concepts of access and use of financial services. Nevertheless, the researcher could not carry out the follow up on the in-depth interview feedback, as information provided through questionnaires and the data set is considered to be sufficient for carrying out the established research question.

*Questionnaire* appears to be a common method in survey as a design of data collection. Bryman (2015) indicates that questionnaires are among the most intensively used method of collecting survey information. At the national level, questionnaires facilitate reaching a larger number of cases which could be difficult with other instruments, e.g. interviews. As pointed out earlier, so far there are three waves of data collection measuring demand for financial services in Tanzania. Each wave collected information from selected samples, independent of selected samples in the previous wave. This means that the survey intended to cover a cross section of measures of demand. That being the case, questionnaire information may be slightly different in each wave, depending on the need for improvement meeting the trends of the particular wave. According to the information received from one of FinScope data set administrators in

Tanzania (Jonathan Kasembe, FSDT), the questionnaires have been continually modified from one wave to another following the field experience in the previous wave, and the need to take into account emerging trends and concepts of demand for financial services. For instance, a review of questionnaires used indicates that questionnaire information in 2006 included a financial literacy section, while in 2013 the concept was broadened to financial capability. Such modification could be meeting the ongoing debate of measuring financial literacy, of which financial capability is being pioneered to be an important factor for responsible finance (see for example Mitton, 2008; Huston, 2010; Kempson et al., 2013; World Bank, 2014c). It is because of the modification of questionnaires that the researcher could not employ the 2013 data set. The data set was found to have less information about household behavioural information. Although the questionnaires used in all rounds appear to be slightly different from one another in terms of structure since the first cycle; the objectives of measuring demand and access to financial services for individuals and households at national level remained the same throughout all cycles (FSDT, 2014). The consistency in survey information for the 2006 and 2009 cycles accommodates the study of the effects of behavioural factors in the use of financial services by pooling such individual cross section surveys into a pooled time series cross section study.

**Information used for the current study**

Table 5.1 presents the structure and questionnaire information used for the two cycles, measuring demand and access to financial services by FinScope in Tanzania. The questionnaire for 2006 consisted of sections A to O, and the questionnaire for 2009 consisted of sections A to U. The similarity of the content of the questionnaires is on such information as household demographics, financial services landscape and savings and investments. Additionally, the content of the questionnaires regarding financial attitudes and perception appears to be the same for 2006 and 2009. Following the aim of exploring the determinants for the use of financial services, with the intention of explaining how household behavioural characteristics influence the use of financial services, the extracted information that meets the scope of the current study has been indicated by italics. The choice of information to be used in this study is determined by the research objective and subsequently the findings about household beliefs are presented in Chapter 7. Accordingly, the process and context of construction and measurement of variables is discussed in Chapter 8 section 8.2.

**Table 5.1: The structure of FinScope Questionnaire and Information used**

| **Section** | **Information 2006** | **Information 2009** |
|---|---|---|
| A | *Physical Access to Amenities* | *Household and respondent identification* |
| B | *Financial Literacy* | General literacy |
| C | General money matters | *Financial literacy and documentation* |
| D | *Savings and Investments* | Income |
| E | Informal Savings and Societies | *Banking* |
| F | *Credit and Loan Products* | *Savings and investments* |
| G | *Banking* | Informal savings and societies |
| H | *Financial Perceptions* | Non–monetary savings |
| I | Insurance | * |
| J | Money or In Kind Remittances | *Credit and loans* |
| K | Non-Monetary Savings, Loans, Credit and Remittances | Non–monetary loans |
| L | (K) Psychographics | *Financial perceptions* |
| M | (L) Cell phone Use | Risks and coping mechanisms |
| O | *(K) Demographics* | Insurance |
| P | | Money or non-monetary remittances |
| Q | | Mobile phone financial transactions |
| R | | Non–monetary remittances: |
| S | | Technology |
| T | | Psychographics |
| U | | Land ownership, housing conditions, access to amenities, ownership of durables ,money use and income |

Source: *FSDT, Tanzania FinScope Survey Questionnaires (2006 and 2009), summary by author*

### 5.2.2 Financial Diaries Methodology

Financial diary metholody is employed to acquire in-depth information about household financial behaviour, and how such behaviour is associated with the use of financial services. Basically, the methodology is used to achieve the first and second research questions of this study. The methodology was originally and successfully used to study the financial lives of the poor in Bangladesh and South Africa (Rutherford, 2003; and

Collins, 2005). The framework of the methodology is based on collecting everyday financial information about households, including income and consumption, life financial events, financial instruments and the general financial portfolio. Thus, the methodology offers detailed everyday financial experiences which provide information on financial behaviour, as well as behavioural changes. Nezlek (2012) supports the use of diary methology for the provision of accurate descriptions of everyday experiences, instead of single-handed assessments that may be prone to memory bias. The potentiality of acquiring detailed financial experiences is for enriching the description of financial behavioural characteristics influencing the decision to use financial services. The previous studies were based on understanding the general financial portfolio of the poor (Rutherford, 2003; Collins, 2005). They confirmed that low income people do use a variety of financial strategies, and they demand formal financial services. The current study goes further to explore the behavioural beliefs of households regarding the usage of financial services and examines the households' financial experiences.

Among the advantages of financial diary methodology is the usage of multiple and mixed research instruments (see for example example Collins, 2005; Bankable Frontier Associates and Ntare Insights, 2013; FSDK, 2014). In order to capture relevant, accurate and intensive household financial information, a variety of data collection instruments are used. Three forms of instruments have been utilised, such as questionnaires, interviews and diaries. The discussion about instruments used is presented in section 5.2.2.1.

#### 5.2.2.1 Financial Diary Methodology Research Instruments

Table 5.2 portrays research instruments used for primary data collection about household behavioural characteristics and their financial experience. *Questionnaire* items were established based on the objective of the study and a review of literature related to the understanding of household financial lives (Collin 2005 and Tsai, 2014). The questionnaire had five major parts. These include household demographic and socio-economic characteristics, household income generating activities, consumption and expenditure, financial challenges facing households and financial responsibility; the last part covers the financial strategies used by households. To enhance the collection of rich information, the questionnaire included open and closed end questions in plain and understood English language. In most cases, the questionnaire was administered by the researcher. It is documented in the literature that data collection in developing countries is complicated because of illiteracy (see Elahi, 2008). Thus, the administration of questionnaires was conducted in order to eliminate inaccuracy of data resulting from illiterate participants. Additionally, non-users of financial services have been documented to belong to low literacy class (Cole et al., 2011), whereby majority participants in the study are non-users of financial services. However, few participants who were able to read and understand the concepts in the questions self-administered the questionnaire. The questionnaire used is documented in Appendix A.

*Diary;* the researcher developed a form containing date, household ID, a column of cash inflow, cash outflows and a space for additional comments. These were distributed to households for filling in their daily income and expenditure. The diaries were collected on a weekly basis, whereby the researcher and research assistant met with the participants and made reconciliation between cash inflows and cash outflows. Cash inflows mainly covered the income from various sources, such as income from household income generating activities, borrowing, money in the form of gifts, and any other sources of income. Meanwhile, the cash outflow consisted of consumption and expenditure by households. Additionally, during the meeting, the researcher had an opportunity to ask for more information about household financial experiences. The enquiry was unstructured. It depended on the circumstances and experiences of household participants. A template of the diary sheet is presented in Appendix B.

*Qualitative open-ended questionnaire*; this instrument is considered to be among the qualitative methods of data collection (Saunders et al., 2009). This was employed in eliciting households' salient beliefs about the use of financial services. The decision for the use of this method was based on three reasons. Firstly, the method instilled the freedom to respond to the questions without any influence that might have resulted from direct contact. Unlike closed-ended questions, open-ended questions gave participants freedom to respond to questions by providing their opinion and experience. Similarly, Popping (2015) argues that the use of open-ended questions sensitises the respondent to read a question prior to responding, since an unlimited choice of answers are expected from them, unlike having to select from a limited range of reading answers. Secondly is the fact that the understanding of households' salient beliefs is based on the theory of planned behaviour, discussed in theoretical conception in chapter 3. The structure of the questions replicated the questions suggested in the theory of planned behaviour for eliciting salient behavioural beliefs (Ajzen, 1991; Ajzen, 2000). The researcher used the suggested questions in the context of use of financial services. This facilitates the understanding of the phenomenon consistent with the theory. Accordingly, seven open-ended questions related to household behavioural beliefs (perceptions about financial services in the current study), household normative beliefs (reflecting perception about social influence) and household control beliefs (perceived difficulty) about using financial services. The guiding questions for the open-ended questionnaire are attached in appendix C. Questions one and two relate to behavioural beliefs; question three, alternative sources of finance; question four, and five social influences; and question six, perceived difficulties of using financial services.

**Table 5.2: Resaerch Instruments Used for Studying Household Financial Experiences**

| **Instruments** | **Collected Information** |
|---|---|
| Questionnaire | Household General Demographic and Social economic information |
| | Income generating Activities/Sources of Income |
| | Consumptions and expenditure |
| | Financial Challenges and Financial Responsibility |
| | Financial Strategies |
| Diary | Household financial experience including their daily income and consumption. |
| Qualitative open ended questions | Household behavioural beliefs about financial services<br><br>Personal opinions about social influence in financial decision making<br><br>Perceived behavioural control for the use of financial services |

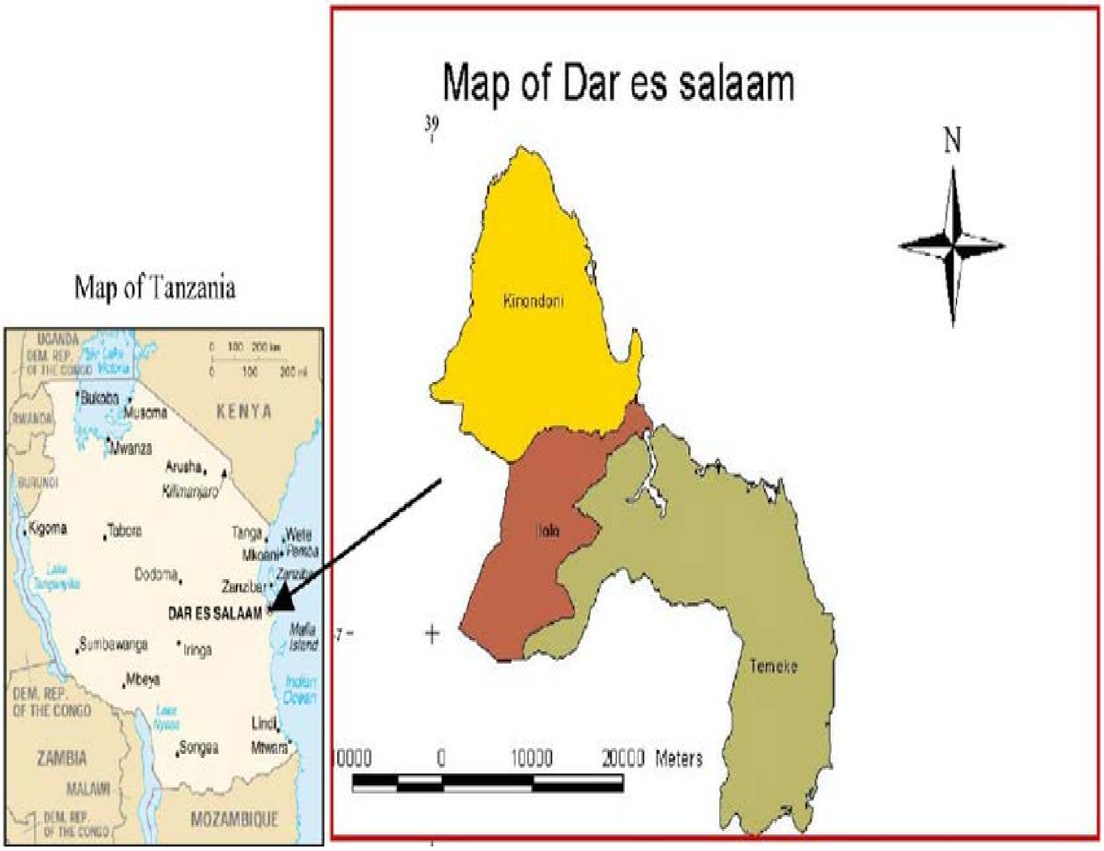
### 5.2.2.2 Validity and Reliability of study instruments

In order to ensure the quality of the study, the researcher took into consideration the aspects of validity and reliability of instruments used for data collection. Following the mixed research methods, the development of research instruments was based on the specific research questions and their respective objectives. Each established instrument (questionnaire, diary and open ended questionnaire) had a connection to the research objectives. The researcher conducted the literature review in the subject area such that the instruments were guided by context of the subject area. Such linkage between instruments, research objectives and relevance to the subject area suggests the validity of the current study, as recommended by Bryman and Bell (2015). The details of each instrument used, the objective and enquiries have been discussed in section 5.2.2, subsection 5.2.2.1 and shown in table 5.2. On the other hand, reliability refers to the extent to which the study is replicable (Bryman and Bell, 2015). In order to facilitate the reliability of the study, the instruments used underwent several reviews and processes. Firstly, the instruments underwent peer review, whereby one senior researcher and two fellow research students were involved for reviewing the quality and clarity of enquiries. Secondly, the supervisory team reviewed the instruments prior to field work. Thirdly, the ethical approval procedures of school (involving research committee) takes into account the clarity of instruments prior to approval for the field work. Such ethical procedures, which demand the clarity and relevance of instruments in addition to the required research ethics, facilitated the use and improved the quality of instruments. Additionally, the researcher undertook a pre-testing of instruments prior to full field work, in order to ensure that the instruments are commonly understandable by participants prior to the full field work. Moreover, the researcher has clearly outlined the research sampling process and procedures undertaken in subsection 5.2.2.3 which are easy to replicate.

#### 5.2.2.3 Sample Size and Sampling Procedures

Originally, the study intended to undertake stratified random sampling method to select the sample for examining financial experiences practised by households. This would have obtained a representantive sample of the population based on levels of income, usage of financial services and geographical regions. However, this was not possible, due to the need to obtain the detailed data relating to household financial experiences, which could only be efficiently carried out through financial diaries methology on a small sample. In relation to this, it was not possible to select the representative sample from the Tanzanian national population of about 48m, and a country that has more than 30 regions. Therefore, the researcher used convenience sampling stratage to meet the objective. The sample size, location and selection procedures are discussed below.

**Figure 5.1 Map of Tanzania showing Dar es salaam**




*Source: Mbuligwe (2001)*

The sample size used is 30 households in Kinondoni area, Dar es salaam, Tanzania (figure 4.6). The study intended to examine financial experiences of households for 12 weeks, whereby households make records of their financial inflows and outflows on a daily basis.This included weekly cash inflows and outflows reconcilitaion interviews with the researcher. The reported sample size relates to household participants who participated sufficiently in the diary practice. As explained earlier, although the targeted sample size was not intended to be representantive of the Tanzania population, it ensures that both users and non users are included in order to understand the financial experiences of households from both sides. In this study, a household is defined as a group of two or more people living together in the same house/place, sharing their income and expenditure. Beama and Dillon (2011) recommend that the definintion of household should be tailored to the need of the study.

The participants were sought through partinership with community groups and centres. This was found to be a conveinient strategy considering the sensitive nature of the financial data being collected. The researcher introduced the research project to local and community groups, such as leaders of Msasani, Kawe Group and Upendo group Mbezi Juu. The leaders of the respective groups introduced the researcher to members facilitating the recruiting participants. From the identified local community members, the researcher randomly selected participants. The use of local and community groups/centres was of advantage to the researcher, as it instilled confidence in the participants by knowing that the person they are dealing with is recognised by their leaders. Additionally, it provided access to a larger number of prospective participants as it would have been otherwise impossible. Although partnering with community groups and centres has been the successful recruitment strategy in most of the previous financial diaries studies (see for example Tsai, 2014; Murdock and Schneider, 2013; Johnson et al., 2012), the researcher, in addition to this, directly approached households in the residential areas (identified field) for gaining the advantage of multiple data collection approaches. However, the second strategy was not as successful as the use of local and community groups. This reflects sensitivity of households in dealing with new people, and confirms the importance of using social and community organisations as suggested by Murdock and Schneider (2013). Accordingly, 25 household participants were recruited via local and community groups, while 5 participants were recruited via direct approach.

The researcher administered initial recruitment questionnaires to about 60 respondents. In addition to collection of an overview of household social and economic characteristics through the questionnaires, the same was intended to facilitate familiarisation with participants prior to collection of their cash inflows and cash outflows. These questionnaires were administered to household heads or any household member who could speak on behalf of the household. The whole process of data collection, strategies and recruitment of participants towards the end of the diary period of 12weeks is presented in appendix table D. In brief, 46 out of 60 respondents (from questionnaires recruitment) agreed to participate in research using the financial diary. However, out of 46 household participants, 30 participants managed to participate in the financial diary practice for a period of 8 to 12 weeks. The profile of household participants is detailed in the Appendix table L. These have been included in the analysis presented in chapter 6.

The selected sample size, time period and location are convenient due to the following;

Firstly, the collection of diary data for 12 weeks and sample size of 30 offered detailed and sufficient information for analytical purposes. The 12 weeks period, where households recorded their daily financial activities, is sufficient for highlighting their financial experiences and livelihood. Similarly, the period used makes use of more than 2520 data points that are sufficient for carrying out statistical analysis. Stuteley (2003) proposes a minimum sample size of 30 for statistical analysis. Thus, the chosen sample size used for studying financial experience is within the benchmark. Besides, the sample size and time period used relates to documented previous experience of usage of the financial diaries methodology. Table 5.3 demonstrates the previous studies that used the method. To the knowledge of the researcher, the smallest sample size ever used is 24 participants (Bankers Frontier Associates, 2011) and the largest is 300 participants (Johnson et al., 2012). In terms of timeframe, the shortest time period is the financial diaries studies in Rwanda which were conducted for a period of about 8 weeks (Bankable Frontier Associates and Ntare Insights, 2013) and the longest is about 72 weeks (Stuart et al., 2011). Although the sample size to be utilised may not be justified by spotlighting the smallest sample ever used, the fact that the methodology offers detailed data for understanding financial behaviour considering the sample which cannot be representive at national, regional or district level cannot be denied.

Secondly, given the limitations of financial resources and time constraints in the current research, an adequate number of participants and field time was sought to meet the set project deadline (see project timeframe Appendix G). Saunders et al., (2009) point out that the decision about methods of data collection and the sample should take into consideration the financial resources and time limitations.

Similarly, the choice of field place, Kinondoni district Dar es Salaam, was based on having a setting that could suitably and efficiently offer necessary information related to financial experiences and houshold beliefs regarding the use of financial services. Dar es Salaam is a major city in Tanzania where the majority of financial institutions are established. This facilitated the enquiry about beliefs held by households regarding the use of financial services, as what is required is found within the environment. In other words, Dar es Salaam city offers a better foundation for eliciting household beliefs about the usage of financial services than other Tanzanian regions. Additionally, the chosen district is where the majority of residents in Dar es salaam are found. This is unlike Ilala district which is largely occupied as a business centre and Temeke which is dominated by underdeveloped land (Kimbisa, 2010). Moreover, Kinondoni District is among the best in terms of infrastructure, which offered the researcher a better access to household premises. Thus, in other words, Kinondoni district accommodated the researcher's costs and time constraints.

**Table 5.3: A Review of Research Undertaken by Financial Diary Methodology**

| **Author** | **Sample size** | **Sample content** | **Timeframe** | **Frequency** | **Place** | **Subject** |
|---|---|---|---|---|---|---|
| Rutherford(2003) | 42 | Urban and Rural | 12Months | Bi-Monthly | Bangladesh | Conversation of the poor about money |
| Bankable Frontiers and Ntare Insights (2010) | 59 | Rural | 2 months | Weekly | Rwanda | Understanding financial lives and need for financial products |
| Johnson et al., (2012) | 300 | Purposeful sample | 14 months including recruiting | Bi-monthly | Kenya | Financial lives of Kenyans |

| Author | Sample size | Sample content | Timeframe | Frequency | Place | Subject |
|---|---|---|---|---|---|---|
| Collins (2005) | 166+ | Rural and moderate | 12months | Bi monthly | South Africa | Low income people/poor |
| Murdock and Schneider (2013) | 200+ | Low income | 12Months | Bimonthly | USA | Financial lives |
| Bankable Frontiers(2010) | 125 | Revisit of 2004 | 6Months | Bimonthly | SouthAfrica | Mzansi iniatives |
| Kumar and Mukhopadhyay (2013) | 60 | Rural and urban | 6Months | Weekly/periodically | Tamir Nadu India | Financial needs /women |
| Stuart et al., (2011) | 120 | IOBM(customers) | 18Months | Bimonthly | Malawi | Financial vulnerabilities and product innovation |
| Bankable Frontier Association (2011) | 24 | Youth | 10Weeks | Bimonthly | Uganda | Vulnerable youth |
| Tsai (2014) | 30 | Women | 6Months | Bimothly | Philippine | Financial roles of formerly trafficked women |
| Stuart (2012) | 91 | Rural | 34weeks diaries 8weeks intervention | Weekly | Uganda | Financial capability |
| Gash and Gray (2014) | 36 | Youth | 12Months | Monthly | Mali | Financial needs of |

| Author | Sample size | Sample content | Timeframe | Frequency | Place | Subject |
|---|---|---|---|---|---|---|
| | 30 | Youth | 6Months | Bimonthly | Ecuador | youth |

*Source : Reviewed financial diaries methodology literature; summary by Author*

## 5.3 Data Analysis Techniques

In this study, methods of analysis employed depended on the specific research question and the nature of the collected data. Additionally, the choice of data analysis techniques follows the choice of research design of the current study. As discussed in section 5.3, both quantitative and qualitative methods of analysis are employed. Quantitative methods of analysis were employed for investigating the effect of behavioural characteristics for the intention and use of financial services and a qualitative analysis technique was employed for eliciting households' salient beliefs. Meanwhile, the critical examination of financial experiences employed both qualitative and quantitative techniques (see sections 5.2.2 and 5.3.2). The general research philosophical assumptions suggest employment of techniques corresponding to the research approach and research methods (Saunders, 2012). The summary of research questions, rationale of study, sources of data and data analysis techniques are presented in Appendix H. However, the discussion of specific data analysis techniques is presented in the following sections.

### 5.3.1 Analysis of Household Financial Experiences

The analysis of household livelihood and financial experiences from financial diary practices appears to be challenging. This is due to the fact that the financial diary method is an emerging method, and that there are not yet well-established analysis techniques in the body of literature. As mentioned earlier (section 5.2.2), the method has mostly been used to study the financial lives of the poor, involving frequent interviews about financial portfolios and financial instruments used. The method looks deeply into everyday financial life, thereby producing intensive data including qualitative and quantitative data from a limited sample. Based on the nature of this type of data, the existing literature has employed various methods of analysis. There are studies which involved both qualitative and quantitative methods of analysis (see for example Collins et al., 2009; Stuart, 2012; Kumar and Mukhopadhyay 2013). Meanwhile, Collins et al., (2009) point out that statistical analysis is limited by the sample size. Because of the nature of the data, the fact that it involves both quantitative and qualitative information approaches to analysis, the current study is guided by such specific questions as:

What income generating activities are performed by households?

What is the pattern of cash flows?

What is the pattern of their cash outflows?

What is the borrowing behaviour of households?

What are the financial challenges facing households?

What is the relationship between household financial experience variables?

Therefore, descriptive analysis is employed responding to the specified questions. However, in some instances qualitative information obtained from field experience is used to complement the descriptive findings.

In the second step, the researcher employs bivariate correlation analysis to underscore the association between household financial experience variables. Alternatively, the correlation among household financial experience variables, which include household financial strategies, would signify whether households need financial services or not. In other words, the relationship between household financial strategies and household financial experiences is explored. In that case it is assumed that there is linear association amongst household financial experience variables. For instance, household savings are linearly associated with household income inflows. Accordingly, the use of bivariate correlation analysis fits this objective. Despite the fact that correlation analysis does not provide predictive power of variables concerned (Leedy and Ormrod, 2010) it is useful for assessing the strength of association between variables for establishment of causation (Cohen et al., 2013). However, in the current study, the explored correlation between financial experience variables will offer insight for further cause effect studies. Where strong and significant association among the specific variables is identified, it would attract further investigation. It is important to note that the current study explores the relationship among multiple financial experience variables, whereby statistical association among the variables is not yet known. The analysis and findings are presented in Chapter 6 section 6.3.

### 5.3.2 Analysis of Household Behavioural Beliefs

The analysis of household's salient beliefs presented in chapter 7 employs thematic qualitative method. According to Braun and Clarke (2006), thematic qualitative analysis is a method of identifying, analysing and reporting the themes emerged from the data. Although there is no dispute about what thematic analysis is (Braun and Clarke 2006; Attride-Stirling, 2011 and Bryman and Bell, 2015), the use of thematic analysis in the present study is basically driven by its flexibility. Unlike grounded theory and other related theories, thematic analysis can be applied across a range of theoretical and philosophical perspectives (Braun and Clarke 2006). In that respect, since the current study follows pragmatism philosophical approach in understanding household beliefs about the usage of financial services, it is expected to successfully achieve the aims (see chapter 7). The thematic analysis process outlined by Braun and Clarke (2006) was followed. Table 5.4 shows the stages undertaken to analyse the household behavioural characteristics of the selected household participants

**Table 5.4: Thematic Analysis Phases and Analysis Process Undertaken**

| No. | Phases | Process Undertaken |
|---|---|---|
| 1 | Familiarisation with data | This was done during field work and after field work. The raw data (30 documents from household participants, and field notes by researcher) were reviewed with an intention of getting an idea of patterns/themes. This involved going through all questions and respective answers for each collected document. |
| 2 | Transcription process | Posting data to a Word document, involving translation of language from Swahili language (the |

| No. | Phases | Process Undertaken |
|---|---|---|
| | | Tanzania-National language) to English. Both questions and answers were recorded, such that each question had its corresponding answers for all collected documents. This involved multiple reviews of data from original/raw data to recorded and translated versions. Translation was done by the researcher as Swahili is her local language. This followed the translation done by a second person who is fluent in English and Swahili at the pilot study phase. |
| 3 | Generating initial codes | This was done in a systematic manner. Codes were generated in categories of answers to questions one after another. The researcher started with the answers to advantages of using financial services, through the last question about historical background. (The transcribed information was exported to Excel sheets to facilitate coding of data). |
| 4 | Searching of themes | The generated codes were coded and collated following their contextual meaning to form themes. As codes were set according to responses of respective questions, similarly themes were developed from respective codes in a specific question. For instance, all codes that referred to safety of financial services for responses to the question about advantages of financial services were collated to a relevant theme, such as positive perception related to security of financial services. |
| 5 | Reviewing themes: | All themes were reviewed. This involved scrutinising the relevance of themes, and those themes which coincided were merged. For instance, when searching themes, a theme emerged about convenience of financial services and barriers to accessing financial services (see from organising themes negative perception about financial services table 7.1). At this review stage, both themes were found to offer related context, hence they were merged to form a theme called complicated access to financial services. |

| No. | Phases | Process Undertaken |
|---|---|---|
| 6 | Defining and naming themes: | At this stage, themes were defined and named to offer relevant meanings that relate to responding to the research question. For instance, household positive perceptions about security of financial services. |
| 7 | Producing the report: | This mainly refers to analysis, as presented in chapter 6. The analysis produced is based on responses from collected data and linked to the research. Inferences were made in relation to the financial environment of participants and existing literature. |

### 5.3.3 A Structural Equation Modelling Approach

A structural equation modelling (SEM) technique is used to address the third research question. Structural Equation Modelling is a multivariate statistical data analysis method. Hox and Bechger (2011) explain Structural Equation Modelling as a general structural modelling technique that involves the combination of various statistical analysis methods, such as factor analysis and regression analysis. The importance of SEM is based on its capability to depict relationships among observable variables, facilitating the testing of theoretical models specified by the researcher (Schumacker and Lomax, 2004). SEM explains not only the relationship among observable variables, but also it handles relationships among latent variables (Hoyle, 1995). Latent variables are unobservable variables such as attitudes, behaviour and social experiences that cannot be measured directly (Hoyle, 1995). Schumacker and Lomax (2004) further argue that SEM determines the extent to which a theoretical model is supported by the sample data, and once the theoretical model has been supported by the sample data, such findings may encourage carrying out the theoretical model to a more advanced scenario. In other words, SEM offers a foundation of theoretical testing, and thus facilitates testing complex relationships among variables. According to Schumacker and Lomax (2004), there are four advantages of using SEM;

i) SEM supports the use of multiple observed and unobservable variables in carrying out scientific enquiry.

ii) SEM takes into account the validity and reliability of the observed score from the measurement instruments.

iii) SEM has, for a long time, been proven to be able to deal with sophisticated and complex theoretical models. It allows simultaneous regression, where the same variable can be dependent as well as independent in examining direct and indirect effects (Bowen and Guo, 2012). Relating to the current study, SEM facilitates the estimation of the indirect effects of attitudes towards financial services, subjective norms and perceived behavioural control in the use of financial services.

iv) It is considered to be user friendly. Hoyle (1995) describes SEM to be a flexible and more comprehensive method of testing hypotheses than other approaches such as partial correlation, ANOVA and multiple regressions. The methods provide the means of controlling both confounding variables and measurement errors.

The use of SEM in the current study is justified by following considerations; unlike other statistical modelling techniques such as multiple regressions, SEM can measure the indirect effects of antecedents of behavioural intention towards the use of financial services. SEM also facilitates the estimation of latent variables, for instance in the current study attitudes towards financial services, subjective norms, and perceived behavioural controls. As discussed in chapter 3, based on the theory of planned behaviour, attitudes towards financial services, subjective norms and perceived behavioural control of the use of financial services are considered to have effects on actual behaviour of use of financial services through behavioural intentions. On the other hand, the behavioural intention, together with perceived behavioural control, directly affects the decision to use financial services. It can be noted that the model involves unobservable variables, and there is sophisticated interrelationship among the constructs. These types of interrelationships between constructs can easily be handled by SEM.

The undertaking of Structural Equation Modelling followed two main stages (see McDonald and Ho, 2002; Hair et al., 2006; Schumacher and Lomax, 2004, for discussion). The first stage involved an assessment of the measurement model. The assessment of the measurement model for the effects of behavioural factors in the use of financial services was estimated by Confirmatory Factor Analysis as stipulated in Chapter 8, section 8.4. The second stage involved structural testing and evaluation of the model. This second stage was performed after the satisfactory measurement model. The discussion about the procedures undertaken, such as assessment of the measurement model, structural evaluation and assessment of validity and reliability are discussed in Chapter 8 sections 8.4 to 8.7.

Despite the stated advantages of SEM and the decision to employ the technique, the technique is subject to several criticisms. The major criticism is the debate on whether SEM is capable of testing causality or not (Sobel, 1996; Nachtigall et al., 2003). In the origin of SEM authored by Wright, the technique was intended for causality inferences (Pearl, 2012; Bollen and Pearl, 2013). However, Pearl (2000) indicates that the literature employing SEM appears to diverge from the original idea of causality because it employs assumptions that are not directly testable. They explain the lack of precise mathematical assumptions from founders that caused current researchers seek alternatives. On the other hand, such criticism of lacking capacity to test causality can be considered to be weak. This is due to the lack of consensus in the literature about necessary and sufficient conditions for inferring causality (Jöreskog et al., 1979; Shugan, 2007; Zheng and Pavlou, 2009; Pearl, 2012). In this study, the stated challenges of SEM are dealt with by establishing a graphical behavioural conceptual framework based on the theory of planned behaviour. The graphical behavioural conceptual framework is presented in Chapter 3 figure 3.5 and the structural graphical model in Chapter 8, figure 8.2. These are consistent with Bollen and Pearl (2013) who suggest the employment of graphical models clearly indicating the assumptions of the study.

Together with diary practices by households, which were intended to understand their financial experiences, the researcher issued qualitative open-ended questionnaires to participants for exploring beliefs held by households about the use of financial services. Thirty households completed the qualitative open-ended questionnaire and are analysed in chapter 7. The detail about the instrument is discussed in subsection 5.2.2.1.

## 5.4 Research Ethics

The study adhered to ethical issues surrounding data collection and data protection throughout the research process. Following the ethical issues regarding research activities, the ethical approval was sought from, and granted by, the appropriate committee (in the current study the University of Central Lancashire, Ethics Committee for Business, Arts, Humanities and Social Science (BAHSS)) for primary data collection. Seeking ethical approval was not only intended to follow the ethical regulations and procedures set by the researcher's University, but also offered guidance about principles and procedures of conducting research ethically (Saunders et al., 2009). Prior to collecting the primary data, the purpose of the study was clearly explained to potential participants to facilitate the informed decision to willingly participate. Thus, in this study, only households who agreed to participate were engaged in the study. All participants had the right to withdraw from participation at any time during the research. The withdrawal was allowed either by express (written) or by implication (drop from study). Considering the nature of information collected, which is personal financial information, the researcher guaranteed participants privacy and confidentiality. This was maintained by reporting the findings whilst keeping participants anonymous and maintaining restricted access to data. The names used in this research referring to participants are not their real names.

## 5.5 Summary

This chapter has described the methodological aspects employed for the study. In implementing the research questions, the first research question uses both quantitative and qualitative research methods because it demands understanding of household financial experiences in relation to the need of financial services. The second question employs qualitative methods because it seeks to identify beliefs held by household about the use of financial services. The third research question is addressed via quantitative methods in order to examine the relationship between behavioural factors and the use of financial services. The employed research methods facilitated the understanding of household financial experiences, household beliefs about the use financial services and subsequently the effects of household behavioural factors in the usage of financial services. The findings of the study are presented in chapters 6, 7 and 8.

# CHAPTER 6 : HOUSEHOLDS' FINANCIAL EXPERIENCES, EVIDENCE FROM FINANCIAL DIARY METHODOLOGY

## 6.1 Introduction

This chapter answers the research question; *what are the livelihood and financial experiences of households in Tanzania?* Financial diaries methodology is used to explore the financial experiences of households. The significance of this relates to underscoring in detail the livelihood and financial experiences of households with the use of financial services, rather than a broader view.

Consequently, this chapter offers an understanding of the reality of financial experiences of households in Tanzania in relation to the demand of financial services. Based on the data collection method used, and for the sake of obtaining a deeper understanding about household financial experiences, both qualitative and quantitative methods of analysis are utilised. The details of the methods and data analysis techniques are discussed in chapter 5 section 5.2.2. The analysis is carried out in two parts. The first part analysed data to identify household livelihood and financial experiences. The respective findings are presented in section 6.2. The second part involves correlation of the identified household financial experiences in order to understand household needs for financial services. The respective findings are presented in section 6.3. The concluding remarks for the chapter are discussed in section 6.4.

## 6.2 Results about Household Livelihood and Financial Experiences

### 6.2.1 Social Demographic Characteristics

Table 6.1 shows the socio-economic characteristics of household participants. As detailed in chapter 5 section 5.2.2 subsection 5.2.2.3, a household refers to two or more people living under one roof sharing their income and expenditure. For the analysis of livelihood and financial experiences of households, 30 household participants were recruited. These are households who participated in the diary practices for the period of more than 8 weeks (see the recruitment process in chapter 5 subsection 5.2.2.3). In terms of gender, 68% of respondents were women, and 32% were men. The range of ages of the respondents (the majority were household heads) is between 25 and 55 years. Most households have more than 4 household members. Most participants are married. In terms of education, 14 percent of participants achieved at least secondary education, whereas 86 percent had a primary education. Household income distribution for participants is presented in table 6.2.

Additionally, the selected sample included both households which use financial services and those which do not. Out of 30 household participants, 22 household participants are non-users of financial services and 8 households use financial services. 'Household users of financial services' refers to the circumstance where at least one of the household members uses financial services. In terms of formal education 50% of users of financial services have not attained secondary education and 50% of them are formally employed and own their own houses. The majority of non-user households have attained only primary education and 60% of them are self-employed. However, the overall employment status of participants indicates that 83% of households' participants are self-employed, and the majority are involved in the informal sector (see table 6.3 and appendix table L). As can be seen from appendix table L, members of households which use financial services are mostly men. Although the sample size is small for generalisation of findings, to some extent the current findings show that households who do not use financial services have achieved a lower standard of education less compared to households who use financial services, they engage in the informal sector for their livelihood. Somehow this relates to the existing literature regarding the use of financial services, which argues that household characteristics such as the level of education and formal employment increase the probability of using financial services, compared to the less educated (see for example Cole et al., 2009; Ellis, 2010; Beck and Brown, 2011; Boakye and Amankwa, 2012).

**Table 6.1 : Household Participants Social Demographic Characteristics**

| Information | Households not using financial services % (n) (n=22) | Households Using financial services %(n) (n=8) | Total Household participants % (n) (n=30) |
|---|---|---|---|
| **Gender (Respondents)** | | | |
| Male | 23 (5) | 37.5 (3) | 30 (8) |
| Female | 77(17) | 62.5 (5) | 70 (22) |
| **Age groups** | | | |
| 25-35 | 27 (6) | 25.0(2) | 27 (8) |
| 36-45 | 32 (7) | 62.5(5) | 40(12) |
| 46-55 | 41 (9) | 12.5(1) | 33(10) |
| **Marital status** | | | |
| Never married | 0(0) | 12.5(1) | 3(1) |
| Separated | 4.5(1) | 12.5(1) | 7(2) |
| Widow | 4.5(1) | 0(0) | 3(1) |
| Married | 91(20) | 75(6) | 87(26) |
| **Education levels** | | | |
| Primary | 91 (20) | 50(4) | 80 (24) |
| Secondary and above | 9 (2) | 50(4) | 20 (6) |
| **Employment** | | | |
| Employed | 4.5 (1) | 50(4) | 17(5) |
| Self Employed | 95.5(21) | 50(4) | 83(25) |
| **Number of household members** | | | |
| 1-5 | 50(11) | 62.5(5) | 37 (16) |
| 6+ | 50(11) | 37.5(3) | 63 (14) |
| *Average number persons per household* | 5.3 | 5.4 | 5.35 |
| **Ownership of dwelling** | | | |
| Owned | 55 (12) | 50 (4) | 54 (16) |
| Rented | 41 (9) | 50 (4) | 43 (13) |
| Others | 4 (1) | 0(0) | 3 (1) |

*Source: Author's data analysis*

**Table 6.2: Household Participants' Income Distribution**

| Income per Month (TZS) | Households (N) | (%) |
|---|---|---|
| Under 65,000 | 3 | 10.0 |
| 65,000-150,000 | 7 | 23.3 |
| 151,000-300,000 | 12 | 40.0 |
| 301,000-500,000 | 6 | 20.0 |
| 501,000-900,000 | 1 | 3.3 |
| 900,000 and above | 1 | 3.3 |
| **Total** | **30** | **100.0** |

*Source: Author's data analysis*

### 6.2.2 Households' Income Generating Activities

Households earn their income from a number of sources. As indicated in table 6.1 and table 6.3, the income sources are divided into two main groups. These include a group of self-employed which is the majority and a group of the employed. The self-employed households engage in trading activities (refer to appendix table L for details). Despite the fact that agriculture is presumed to be the backbone of the Tanzanian economy, providing a source of livelihood for three quarters of households (Household National Survey, 2014), the respondents, as well as the population in the city, are mainly engaged in trading activities. This reflects the nature of the city as a trading centre. Similarly, the Household Budget Survey (2011/2012) reports that only 4% of households in Dar es Salaam engage in farming, the rest (96%) engage in other income generating activities. As demonstrated in table 6.3, 33% of household participants engage in trading manufactured products such as clothing and household utensils; 30% engage in trading agricultural products other than self-produced products such as vegetables, fruits, cereals, poultry and related agricultural goods; 10% engage in trading both manufactured and agricultural products other than self-produced goods; 10% engage in service provision activities such as catering, stationery and preschool services; and one participant, who is equivalent to 3% of the total participants, engages in selling self-produced agricultural products. The remaining 17% are locally employed.

**Table 6.3: Households' Income Generating Activities**

| Employment | Income Generating Activities | Households by numbers | Households in Percentage (%) |
|---|---|---|---|
| **Self Employed** | Trade self-produced agricultural products | 1 | 3 |
| | Trade agricultural products | 9 | 27 |
| | Trade manufactured and agricultural products | 3 | 10 |
| | Trade Manufactured | 10 | 33 |
| | Service provision | 3 | 10 |
| **Employed** | Employed | 5 | 17 |
| | **Total** | **30** | **100** |

*Source; Author's data analysis*

It has also been observed that most households engage in multiple income generating activities (appendix table L). The importance of engaging in multiple sources of income was reported to be related to two reasons. The first reason is insufficient income from one source. Most participants indicated that engaging in more than one source produces a better income than engaging in one source. Secondly, engagement in multiple sources is considered a hedging strategy against unforeseen risks of loss from one source and the impact of seasonal variations. One aspect associated with seasonal risks relates to the nature of the country being dependent on agriculture, which is highly connected to rainy season and complex processes. During the rainy season, the income inflow appears to be low for both households who engage in trading and households who engage in agriculture. Thus, households seek to safeguard their livelihood by engaging in multiple sources of income generating activities. Another seasonal aspect relates to holidays and the beginning of children's school terms (sending children back to school). A good example of this is the fact that, at the beginning of field work in June, households who engage in selling vegetables in the Msasani area reported a low season in their sales because of Ramadan, when the majority of Muslims fast for religious reasons. This made them switch to other businesses that would be relevant for that season. Similarly, after the Christmas holiday, which is also followed by the first term of sending children back to school (from late December until March), the inflow of income appears to be very low in almost all households' areas of business. This could be due to much spending during the holiday and payment of tuition fees, after which households find themselves in hardship, hence sellers experience a lack of buyers. For example, the household of Mrs. Moro reported the total failure of the household head's (her husband's) fruit business during the season, and switched to doing manual work.

Therefore, in the environment where one source of income is not sufficient, lack of confidence about the continuation of the business as the result of climate and seasonal changes requires the household's participation in multiple sources of income. These findings are consistent with the literature on livelihood. Ellis (2000) points out that multiple income sources, termed as livelihood diversification, is dominant in developing countries including sub-Saharan Africa. Additionally, Ellis (2000) identifies other reasons for engagement in multiple livelihood strategies such as seasonality, risk and coping strategies. As agriculture is considered a major income generating activity in most developing countries (Schultz, 1980; Kwa, 2001); Abimbola and Aluwakemi (2013) suggest engagement into non-farm activities to supplement the agricultural activities.

Although engaging in multiple sources of income is beneficial for diversifying sources of income, such engagement may be associated with lack of specialisation and low productivity. Alternatively, lack of specialisation is associated with failure in special skill building, which could be necessary for improvement in productivity. In this regard, some households reported their engagement in multiple sources of income for more than 2 years, yet their income have never improved. For instance, Atuganile (a household participant) engaged in retail trading such as selling vegetables, second hand clothes and farm produce for more than two years. She has always lacked sufficient income, and often seeks external financial support to send her children to school. Not settling in specific activities leads to a failure to acquire specialised skills for long standing business and effective capitalisation of production. Start (2001) suggests that the negative side of multiple income generating activities (livelihood diversification) involves less capitalised production and lower productivity. This can lead to a step further into poverty.

On the other hand, advocating single income generating activity in order to benefit from specialisation may not be the only solution for improving productivity and increasing income. It appears that even when households continue with a single activity, some still do not show signs of increased efficiency and productivity. Aggy (participant) has engaged in selling vegetables in the market for more than 4 years. However, despite such a long period of business experience, she still does not have her own capital. She buys goods on credit from suppliers, the profit earned is directly spent, and for years she has paid her rent in arrears. She cannot move out of the house for better opportunities because she has been always indebted for the house rent. In discussion with her, she explained that sometimes better opportunities for doing business arise somewhere else, but she cannot follow them, as she cannot move out of her current accommodation to follow opportunities because of unpaid rents. Leaving the current accommodation would require her to pay all her rent arrears, which she cannot. If engagement in a single source would have been advantageous her, her household would not face such long lasting financial difficulties. In other words, advocating single income generating activity is contrary to the emphasis of multiple livelihoods as suggested in the body of literature (Ellis, 2000; 2004 Abimbola and Aluwakemi, 2013 and Start, 2001).

Therefore, whether the household employs a single income generating activity or multiple income generating activities, to benefit from either requires households' frequent assessment of capitalisation of their production, their productivity and the outcome of their productivity for their household wellbeing.

### 6.2.3 Motivation for Engagement into a Particular Income Generating Activity

It has been noted that engagement in a particular income generating activity is a result of two aspects. Some participants reported that their motivation towards a specific activity is related to the need to earn their living, and their financial ability to engage in the activity. The interpretation is that households engage in income generating activity just to earn their living (specifically meeting basic needs). This refers to engaging in income activity for necessity (Ellis, 2000). In this scenario, improving living standards is not a consideration, their first priority is to have food. At the same time, due to financial difficulties, they can only perform activities that they can afford financially. For instance, Vicky (participant) explained that "I am just engaging in selling snacks (maandazi) as it requires low affordable capital to me, and at least we can have food to eat". Her capital for selling snacks just in one or two streets is about TZS10, 000(4.61 USD). Her husband is involved in casual labour.

Another aspect of involvement in a particular income generating activity relates to family background. This supports the literature that stresses that family background matters for children occupation and achievement (Scarr and Weinberg, 1978; Björklund and Jäntti, 2009). The findings reveal that a number of households deal in a certain business because their parents or close relatives dealt with such business. Having experience from their relatives motivated them to establish similar businesses. For example, George (participant) who has a butchery shop, explained that he was motivated to engage in such business after living and working with his brother who worked in a similar business. Similarly, Kazana (participant) explained his engagement in selling vegetables by the fact that his uncle who raised him was involved in a similar business. Examining the earnings from such family history linked activities; it is found that the majority are still living with low, unsatisfactory living standards. They only earn enough to make a basic living, and cannot make investments. The historical chain can have advantages and disadvantages. An advantage could be when the inherited family activity raises the standard of living. Meanwhile, clinging onto a family adopted business that does not support a good standard of living could indicate a lack of creativeness.

On the other hand, most respondents are not happy with their income generating activities (self-employed, small business). Most of them reported that their engagement in a particular business has been caused by their low level of education. As described in the demographic characteristics, most households have only attained primary education. It is true that education is very important in life. A higher standard of education increases life knowledge and skills (see for example Pellegrino and Hilton, 2013). However, participants indicated an emphasis on education for securing employment in the formal sector. Those who reported about a low level of education showed a wish to achieve a higher education in order to be formally employed. This portrays the existence of an attitude of putting a higher value on formal employment than self-employment and entrepreneurship. It is true that education matters for formal employment (see Telles, 1992). However, formal employment should not be treated as the only aspect for earning and improving household livelihood. Additionally, considering the current situation of more opportunities for education and less opportunities for formal employment, there are many people who have attained the required level of education but have not secured formal employment. For example, the research conducted by Tanzania National Bureau of Statistics (NBS) in 2013 indicates employment in Tanzanian urban areas is 24.6%, whereas the unemployment rate is 75.4% (NBS, 2014). Therefore, instead of households persisting in reporting their lack of education for securing formal employment, it is important for them to seriously think about improving their sources of income. Education should be aimed at acquiring more knowledge and life skills. Additionally, there is a need for policy makers to establish a strategy for stimulating and creating the necessary environment for entrepreneurship.

### 6.2.4 Household's Cash Inflows

The cash inflow could be related to various income generating activities, as discussed in the previous section. However, there are sources of cash inflow other than households' income generating activities. As indicated in table 6.4, household cash inflows range from remittances/gifts in cash to salaries and business income. Cash income from business is indicated to have more transactions than other cash incomes. There are 1093 transactions from business income, but only 47 transactions from employment income. This portrays the reality that the majority of households who are self-employed in business earn their income on a daily basis, whereas most employed households receive their salary income on a monthly basis. The smallest channel of income inflow is loans from bank. There are only two transactions in the period of three months from 30 household participants, whereas other credits have 36 transactions. Although loans from formal financial institutions may not be expected to have as many transactions as business income and employment income, the 36 transactions from other credits (this refers to credits from other sources) signify the demand for loans. Formal financial institutions have the potential to meet household's credit demands as they are considered to be more efficient than other sources of credit (Aryeetey, 2008; Ayyagari et al., 2010).

Another aspect of cash inflow that has frequently recurred is the aspect of other incomes. Other incomes include income from sale of assets, service provision, gifts and other incomes that are not indicated in the listed categories. This relates to the earlier explanation that households are observed to engage in multiple income generating activities for their livelihood. On the other hand, the category of other income indicates how uncertain their main sources of income are. As recommended by Ellis (2000) the diversified livelihood of households reflects households' precariousness to survival.

**Table 6.4: Household Daily Cash Inflows**

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|---|---|---|---|---|---|
| Income from business | 1093 | 56064.6 | 97622.2 | 0 | 1400000 |
| Other incomes | 296 | 14501.9 | 20185.7 | 200 | 150000 |
| Employment income | 47 | 85793.6 | 289855 | 400 | 2000000 |
| Gifts/remittances in terms of cash | 84 | 9514.29 | 17670.8 | 100 | 100000 |
| Drawings | 46 | 89073.3 | 208396 | 200 | 1000000 |
| Receipt from debtors | 92 | 18184.8 | 25160.7 | 400 | 200000 |
| Loans from bank | 2 | 475000 | 225330 | 250000 | 700000 |
| Social support | 6 | 53633.3 | 53651.5 | 900 | 140000 |
| Merry go round | 14 | 151214 | 189150 | 15000 | 750000 |
| Other credits | 36 | 58341.7 | 109988 | 1000 | 600000 |

*Source: Author's data analysis*

### 6.2.5 Household Spending Patterns

In section 6.2.2 it has been indicated that households earn their incomes from various sources. Table 6.5 shows household spending patterns. Food expenditure is the most frequent item in this category. The findings indicate that 1733 transactions of cash outflows in the period of three months have been used for food. The majority spend their money on purchasing food on a daily basis. Spending for food is considered a relevant core expenditure, since food is the most basic human need. The daily spending on food relates to the nature of daily earnings of income. Most households were observed to engage in a daily purchase of food despite having surplus income. Although households' surplus income can be spent on various aspects as households would wish, it could have been possible for households to benefit from discounts by purchasing wholesale when they have surplus income. Failure to take advantage of wholesale purchase of food items during surplus periods signifies that households lack money management skills.

Expenditure on transport appears to be the next frequently performed expenditure after food. This reflects the nature of the city, where households move from one place to another for various reasons, and dispersion of the necessary public services. The majority of household participants indicated they incurred daily transport costs for their movement to and from the places where their income generating activities are located. Other transport expenditures relate to accessing medical services, for hospitality and care (visiting sick friend, neighbour, relatives and parents).

Spending on bills such as water, electricity and phone credits are also among the prominent daily expenditures performed by households. With the exception of electricity, where the majority of households spend their income on a weekly or monthly basis, other bills are daily prepaid expenditures. Similar to that is spending for energy. The majority of households use charcoal and Kerosene for cooking and spend on them on a daily basis or alternate days.

It is interesting to find out that, despite the lower level of income of households, saving practice is among their channels of income consumption. The majority of households make efforts to save through saving and credit groups, merry-go-round and saving at home. This is indicated in a total of 469 household saving transactions in the period of twelve weeks. The details about saving behaviour are discussed in section 6.2.7.

Another frequently performed expenditure is spending on children’s education. There are 440 transactions related to children’s education. The frequency of expenditure for education is on a daily basis with small amounts ranging from TZS200 (0.09 USD) to TZS2000 (0.92 USD). The majority of transactions relate to a daily need for pocket money and transport. Larger amounts indicate tuition fees that are paid termly, depending on parent-school agreements. Spending for education highlights the fact that, despite low income and weak sources of income, households value education for their children.

An interesting observation was that bank usage is very low, even among the households who reported holding a bank account. As indicated in figure 6.3, in the period of three months there are only 4 transactions relating to bank savings by 3 household participants. This is the least often used category in which households engage their income. This means that households who use financial services use them less frequently. This raises the question; how do household users use financial services? The majority of users use financial services to channel their salary income, with very few household users using them for business purposes. Alternatively, low usage of financial services by household users relates to factors such as fees attached to transactions, and banks being located at distance. Wendy (participant), a head of household of 4 members, explains her use of financial services is limited to once per month, when she draws her salary. Her less frequent use of her account is due to transaction charges associated with the use of services. Transaction charges have stimulated negative perception about financial services. The findings about household perception of the use of financial services are presented in Chapter 7.

**Table 6.5: Household Spending Pattern**

| Variable | Observations | Mean | Std. Dev. | Min TZS | Max TZS |
|---|---|---|---|---|---|
| Bills Expenses | 687 | 2488.14 | 6838.94 | 200 | 150000 |
| Education Expenditure | 441 | 9278.91 | 57503.7 | 200 | 825000 |
| Business Expenditure | 466 | 93116.3 | 193079 | 200 | 2200000 |
| Food Expenditure | 1733 | 6927.35 | 8457.57 | 100 | 243000 |
| Energy | 466 | 2622.96 | 6219.24 | 100 | 90000 |
| Medical Expenditure | 50 | 10668 | 12367.8 | 200 | 60000 |
| Personal expenditure | 122 | 6739.34 | 15848.5 | 100 | 146000 |
| Investment | 64 | 31271.9 | 54996.8 | 4000 | 360000 |
| Loan Repayments | 162 | 15356.2 | 27697.2 | 200 | 175000 |
| Lending to others | 12 | 39333.3 | 44922.8 | 5000 | 150000 |
| Other Repayments | 34 | 19791.2 | 30928.6 | 200 | 150000 |
| Bank | 4 | 131250 | 114337 | 50000 | 300000 |
| Savings | 545 | 10590.9 | 16145.6 | 200 | 305000 |
| Transport | 956 | 2609.47 | 6986.11 | 400 | 200000 |
| Social Support and hospitality | 74 | 11461.3 | 20538.6 | 200 | 85000 |

*Source: data analysis by Author*

### 6.2.6 Household Borrowing Behaviour

In financial economics, households borrow to finance their consumption during the period of low income, and repay in the period of high income (Chen and Chivakul, 2008). The findings in the current study indicate that participants engage in both cash borrowings and credit purchases (see table 6.6). However, cash borrowing appears to be more common than credit purchases. About 8 households made their purchases on credit, meanwhile 16 households borrowed cash. The recorded credit purchases were obtained from the informal sector. Credit purchases are associated with financial difficulties related to the shortage of money to meet the need for food. The main sources of credit purchase are grocery shops, where households regularly purchase food. The cash borrowings indicate that 19% was obtained from formal financial institutions whereas 81% were obtained from informal finance. Cash borrowings are related to both daily food needs and demand for business operations. Cash borrowings have been sourced from four sources, such as family and friends, self-help groups, employers and financial institutions. The majority of respondents indicated securing cash borrowings from friends and family. Households engage in Self Help Groups to meet their shortage of funds. Participants rarely use formal financial institutions for borrowing. From the sample, 2 participants sourced their loans from formal financial institutions. The reason for non-use of credit from financial institutions relates to lack of access to such services. The reasons mentioned include not holding a bank account, bureaucracy in accessing loans, not having a plan to borrow and being satisfied with informal sources of finance. Although few people access bank loans, the amount of loans offered by banks appears to be larger than that obtained from informal sources. On the other hand, participants reported the use of family and Self Help Groups to be a good and flexible source of meeting their financial needs. However, in some instances, the available finance in Self Help Groups is not sufficient. Self Help Groups cannot finance large investment projects due to limited funds (see for example Ayyagari et al., 2010). This indicates that, despite access to finance from the informal sector, formal financial institutions are still important for financing households' investment projects. This indicates that lack of finance from the formal financial institutions could be among the reasons for persistent poverty, as households are hampered from their productivity, and fail to earn sufficient income. The use of family and friends to meet the need for money is usually for small amounts of money from 500TZS (0.23 USD) to 50000TZS (23USD). However, Self Help Groups appear to support larger amounts of money than could be sourced from family and friends.

In general, sources of financing can be considered in two main groups. Financing from the informal sector (81%) and finance from the formal sector (19%). Household in-kind borrowing is 30%. The observed minimum amount of borrowing from the informal sector is as low as TZS 500(0.23 USD) from friends and family to as high as TZS600,000 (277 USD) from Self Help Groups. Meanwhile, participants indicated to have borrowed from formal financial institution a minimum of TZS 250,000(115USD) to a maximum of TZS 750,000 (346USD). It should be noted that the minimum and maximum amount of funding is as per observed participants in the period of 3 months. They are just indicative of the financial experiences of households. However, formal financial institutions offer funding for more than TZS750,000 (346USD). Furthermore, for comparison purposes, a formal financial institution is capable of offering larger funding than informal sources of finance (Ayyagari et al., 2010)

**Table 6.6: Household Borrowing Behaviour**

| Items | Borrowing | Formal | Informal |
|---|---|---|---|
| Household who did not borrow | 47% (14) | n/a | n/a |
| Household borrowing (No. of households) | 53% (16) | 19% (3) | 81%(13) |
| Minimum amount TZS (USD) | 1,000 (0.5) | 250,000 (115) | 1,000 (115) |
| Maximum amount TZS (USD) | 750,000 (346) | 750,000 (346) | 600,000 (277) |
| Households who did not make purchases on credit (No. of households) | 70% (22) | N/a | N/a |
| Credit purchases (No. of Households) | 30% (8) | 0 | 100% (8) |

*Source: data analysis by Author*

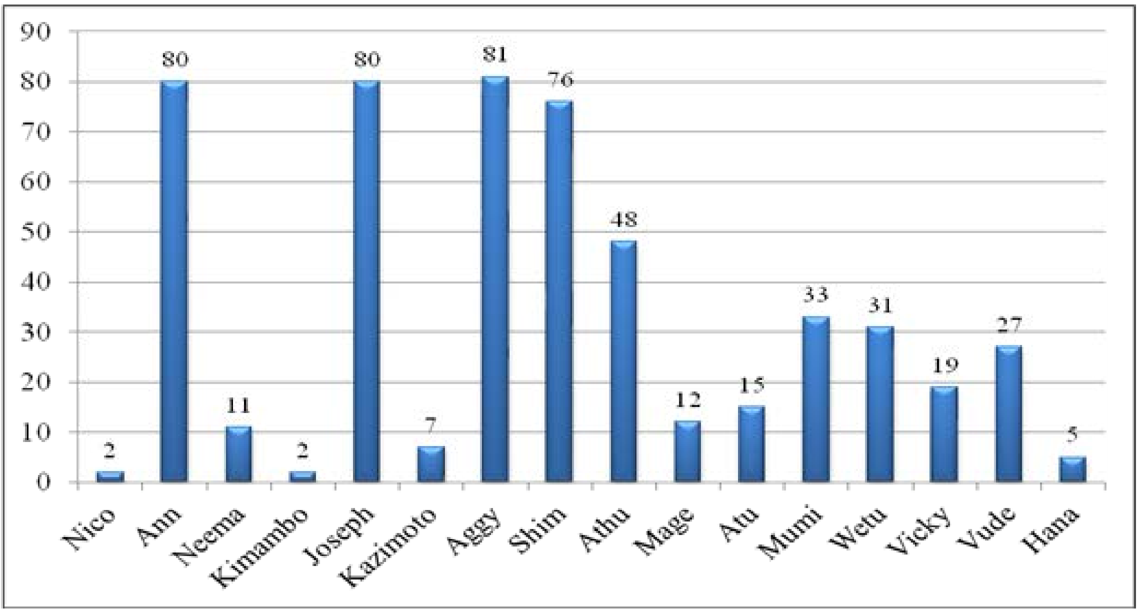
The reasons for borrowing relate to several needs. Household participants reported engaging in borrowing for investments, education, medical demands, food, house rent and to meet funeral costs. As mentioned above, households are observed to engage in credit purchases for meeting shortage of funds for food. Borrowing to meet food needs is a result of insufficient income to meet daily needs. Additionally, households were observed to seek financing for meeting health needs. They reported that not having sufficient income necessitates them to borrow in times of illness. Borrowing for health purposes relates to the fact that health services in Tanzania are not free. If households have insufficient income to meet daily food needs, accommodating costs of health services could be very difficult. Other aspects of households' demand for finance relate to investment in business, supporting children's education, supporting funeral arrangements, and payment of rent. In terms of demand for funds for boosting business, the majority of participants specified such a need. Most of them complained of lack of sufficient capital to carry out productive business. Lack of sufficient capital leads to low productivity, less income and failure to meet daily needs. The current findings regarding the reasons for borrowing are consistent with the theory of finance, that financial services are important for smoothing consumption and capital allocation (Levine, 2005; King and Levine 1993; Beck and Demirgüç-Kunt, 2008 and; Klapper and Demirgüç-Kunt, 2013).

### 6.2.7 Households Saving and Investment Behaviour

The majority of participants recognise the importance of saving. Participants have been observed to engage in saving for precautionary needs, deferred purchases, investment and paying debts. This is consistent with the household finance literature (Keynes, 1936; Modigliani, 1966 and Lusardi et al., 2010). The majority of participants save through informal facilities. This relates to findings that, despite their low level of income and lack of access to formal financial services, they engage in saving through various strategies (see for example Collins, 2005). The frequency of saving and amount of saving varied from one household to another. Some participants were observed to engage in saving at home on a daily basis. Saving at home was made for amounts as low as TZS 400(0.18 USD) to as high as TZS 50,000 (23 USD). The majority of households reported saving at home for emergency needs. Others engaged in daily saving for accumulating funds to meet their obligatory saving arranged with their saving and credit groups, and Self Help Groups. In most cases, saving at home was done by keeping the daily surplus that remained after expenditure. For instance, Mumi (participant) saves, on a daily basis, any surplus daily food expenditure. She explained her engagement in saving is for ensuring the availability of money for meeting household emergencies and that she can meet her group obligatory saving. She mentioned her household emergencies include events such as illness, offering social support and other times which would need money. On the other hand, saving was observed from household participants who are part of saving and credit groups and other forms of group arrangements. Saving in the category of groups was indicated to take place on either a daily or weekly basis depending on group arrangements. Household participants indicate their commitment to their saving groups by ensuring they save as agreed. As shown in figure 6.1, there is a constant pattern of saving by households for meeting group commitments. This indicates reliability of household saving practice. Alternatively, such a pattern of saving portrays how saving is considered to be part of the financial life style of households. As discussed in the literature (see chapter 2 section 2.5), households in low income countries are prone to financial shocks, thus saving appears to be needed for smoothing their financial life. Accordingly, saving facilitates the development of an asset base. On the other hand, saving by participating into saving groups is more successful than personal saving with its lack of obligation. Shefrin and Thaler (1988) argue that saving is not an easy thing. People’s minds are subject to conflict between saving and spending. Therefore, household involvement in saving groups acts as a control tool for household saving. Households would refrain from spending in order to meet their obligation to their groups, making sure they don't disappoint the group members. Shefrin and Thaler (1988) point out that, in order to save, self-control is very important.

Despite the fact that households are observed to engage in saving, their savings are in small amounts. This reflects households’ financial status. These savings in small amounts accumulate very slowly to become productive. It would take a very long time to accumulate them for capital and investment. In addition to the length of time taken to accumulate lump sum funds from savings, the weakness of saving tools used facilitates unplanned spending of savings.  Alternatively, the use of formal financial services could increase household efficiency in saving (see Chapter 7). Although it would be complicated for financial institutions to accept small transactions because of associated operation costs, the theory of finance puts emphasis on financial institutions for facilitating efficient saving (see for example Pande et al., 2012). On the other hand, it cannot be concluded that formal financial services would be suitable for households' needs of saving. This depends on households' financial perceptions (Kostov et al., 2014) and their satisfaction with the informal financial services. In this connection, Chapter 7 discusses the household beliefs about formal financial services, while chapter 8 quantitatively examines the effects of behavioural factors in the use of financial services.

**Figure 6.1: Households' Daily Savings within 84 Days**




*Source: Author data analysis from household diaries*

### 6.2.8 Financial Challenges facing households

Figure 6.2 presents the findings about financial challenges facing households. Despite the varying income profiles of participants, the results from the initial survey show that most household respondents face financial challenges and difficulties at some point in their life. Whether households are better off or belong to the lowest income profile, all of them faced financial challenges in the last 12 months. For example, Mrs Kazimoto (participant) whose household monthly income is about TZS 2,000,000 (USD 922), which is the highest amount among the household participants, reports on financial challenges similar to Mrs. Mwendo (participant) whose monthly earning amounts to about TZS 50,000 (USD 23) per month. This is consistent with the argument of Stamp (2009) that the majority of households, if not all, face financial challenges, despite the evidence of closer relationship between poverty (low income) and financial challenges. Households' financial challenges and the degree of difficulties may differ from one household to another, depending on their income and other household factors (Stamp, 2009). The difference in terms of the extent of financial difficulties facing households according to their levels of income degree is not discussed in this study. Alternatively, see Stamp et al., (2009) for discussion.

Household participants reported several sources of financial challenges. The major source of financial challenge relates to low or insufficient income. Other financial challenges reported by households include business failure, lack of business capital and problems related to price fluctuation of goods and services. The problem of low or insufficient income exists despite being actively engaged in their income-generating activities (see section 6.2.2 and 6.2.3 for discussion about sources of income) and having multiple sources of their livelihood. These indicate that their income-generating activities do not produce enough income to meet various household demands. On the other hand, it has been complex to measure to what extent that income is insufficient. Consequently, it is very complex to determine the amount of income which would be considered to be sufficient. As mentioned earlier, households in all levels reported low or insufficient income to be a challenge. Low income households wish to have more than they have, similarly the better off households wish to have more than they have. For example, Aggy (household participant) wished to have TZS 300,000 (138 USD) per month instead of her average monthly income of about TZS 50,000 (23 USD); meanwhile others who earn more than that, for instance Mr. and Mrs. Kimambo (participants), who earn about TZS450, 000 (207 USD) also find it to be insufficient. In this regard it is difficult to set a benchmark of which amount or level of income can be defined to be low or insufficient. It would appear to depend on household perceptions about their finances and household needs.

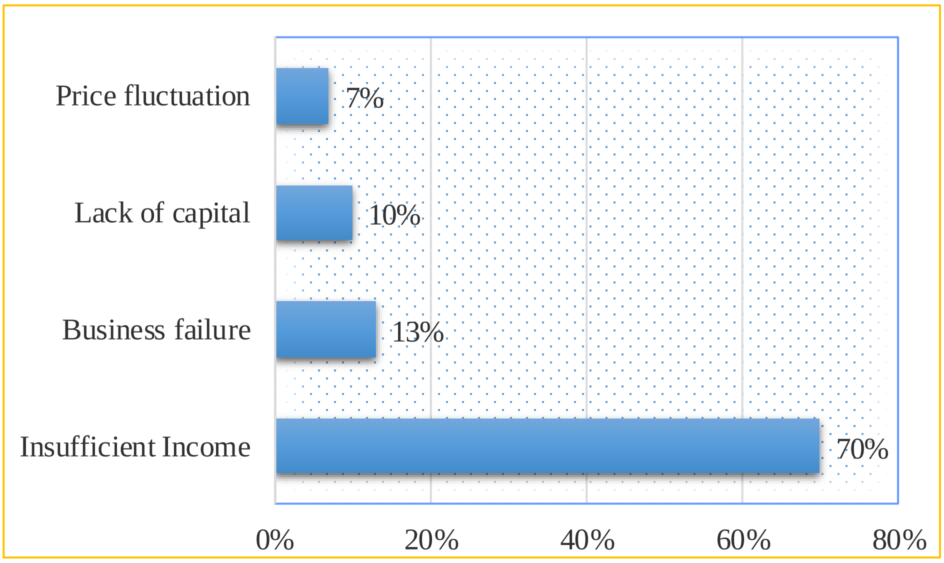
Business failure is another financial challenge facing households. Households reported reasons for business failure to include factors such as seasonality of business, lack of working capital and family events; lenders withdrawing capital or stopping business. In connection to this, some household participants indicated that lack of capital for operating business is a financial challenge. Lack of capital inhibits productivity and leads to failure to earn the income required for the household. For instance, Mrs. Mwendo's household comprises six members. Mrs. Mwendo's marriage status is not certain (according to her), her husband travelled away to search for work for more than a year and there is no communication between them. Mrs. Mwendo engages in a small business (selling vegetables directly to consumers), with a capital of about TZS 20,000(9 USD). Depending on what the day brings, she may earn a spendable income of between TZS 1500 (0.67 USD) to TZS5000 (2.30USD) per day. She would like to engage in other business which may earn more income for her family, but she fails because of lack of capital. She can not expand her current business because of failure to secure funds for working capital. Considering the size of her household, such earnings are not sufficient to meet their demand for food and other household needs.

Additionally, it has been observed that low, or lack of, financial literacy and money management skills are among the challenges facing households. The term 'financial literacy' has a variety of meanings. It is used to refer to financial knowledge, financial skills and financial capability (see for example Xu and Zia, 2012; Lusardi and Mitchell, 2011). Accordingly, various methods have been used to assess financial literacy. For instance, using a framework to measure financial literacy including a number of questions enquiring about income, spending, financial decision making, attitudes, planning and numeracy skills (See for example Lusardi and Mitchell, 2011; Atkinson et al., 2006). It can be noted that assessment of financial literacy is a field of study in its own right. Although this study did not aim to examine the financial literacy of households in a broad aspect, the examination of households' financial experiences spotlighted that low/lack of financial literacy is a challenge facing them. In the current study, financial literacy as a challenge facing households is observed in aspects such as money management skills and knowledge about financial products. Atkinson et al., (2006 pg 16) point out that 'day to day money management of money is very important for people on low incomes, who often have little spare money to do much planning ahead and engage little with the world of financial services'. Failure to keep track of income and spending could result in unnecessary spending, reflecting a Swahili proverb “mali bila daftari hupotea bila habari” meaning that failure to keep track of income and expenditure results in unrecognisable losses. Relatively, some household financial difficulties may not occur if they were capable of managing their income and expenditure. Based on field experience during the initial weeks of weekly diaries reconciliation interviews, most households could only not calculate their cash inflows and outflows including balances, but also could not record the entries. Further to enquiries with respective participants regarding this, they reported that they usually neither record nor keep track of their income and spending. Accordingly, in 14 out of 30 participants, their cash outflows were not aligned with cash inflows.

Another challenge relating to financial literacy is a lack of financial awareness about financial products. Responding to the survey question asking why they do not use insurance services, 12 out 26 participants associated their non-use of the service with lack of awareness and knowledge. Although there are participants whose reasons given for not using pension services, in the relevant question is related to their low income, a number of participants reported that they are not aware of pension services being offered to the private sector. They still have the traditional concept that pension services are associated with employment in the formal sector which was common in Tanzania prior to financial reforms. The aspect of awareness about financial products can be perceived in two aspects. One aspect could be related to the financial sector not providing necessary information about services offered. The second aspect could relate to households not being inquisitive about financial products. However, a conclusion cannot be drawn for either aspect. It could be important to assess the extent of financial information provided by the financial sector to the public, as well as the activeness and perception of households regarding financial matters and financial services. On the other hand, based on the objective of this study, beliefs held by households are examined in the next chapter.

An interesting point arising is households' interest in financial education and the ability of households to capture knowledge and skills. For example, as the research proceeded, the majority of household participants improved their records of their income and expenditure. Although financial diaries were used for acquiring information about financial experiences, not as a tool of financial literacy such as in other programmes (see for example Cole et al., 2009; financial literacy programmes by World Bank Financial Literacy Programs), participants appreciated having acquired basic book keeping skills from the practice diaries. During and towards the end of the fieldwork some participants appreciated that they could trace their spending in relation to their income, could wisely spend their income and thus improved their interest in their own households' financial matters. Examples of information from interviews and weekly regular contact with participants; Neema (participant), explains that her involvement in diary practice has helped her to keep track of her income and expenditure, and identify the profit earned from her business. Similarly, Mumi (participant) point out that she has been able to make extra savings by keeping track of income and spending, unlike prior to the diary practice. Joseph (participant) explains that the practice has opened his eyes to take care of his household finances.

**Figure 6.2 : Financial Challenges Facing Households**




*Source: data analysis by Author*

The aforementioned financial challenges facing households relate to many households' financial problems. Figure 6.3 presents financial difficulties reported by households. Thirty percent of household participants face financial difficulties in expanding their business and fail to engage in productive investments (for example the case of Mrs.

Mwendo discussed in this section 6.2.8 the first and third paragraph). Failure to expand business may lead to static earnings or lack of improvement in earnings. When households experience static or unimproved earnings this will lead to problems related to failure to cope with the rise in living costs. In relation to that, some households reported facing financial difficulties because of the increase in the price of goods and services. Households having a constant low income, as a result of failure to expand business, leads to difficulties in coping with the rise in prices of goods and services.

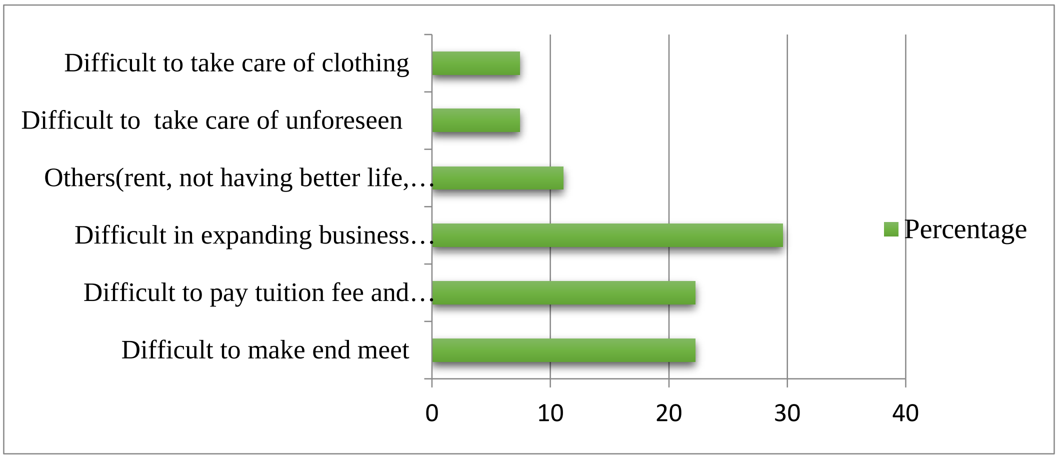
Another problem observed by household participants is difficulties in making ends meet. Regarding this, 22% of participants reported struggling to make ends meet. This was reported by the majority of household participants whose monthly income is between TZS 50,000 (23 USD) and TZS150000 (69 USD). Most of these household participants reported failure of being sure of affording food every day. Aggy, for instance, mentioned that sometimes she would leave her family without food, they may only have one meal. Similarly, Mrs. Mwendo (participant) indicated only having one kind of food (cereal food) everyday as that was the only type of food she could afford.

Another aspect of difficulties relates to supporting children’s education. Due to low or insufficient income, household participants reported to find it difficult to support their children’s education. This was reported by 22% of household participants. Similarly, as discussed in section 6.2.5, the expenditure on education has been indicated as the second item that is most frequently transacted by households. The government to some extent has established a number of schools where the majority of children can access primary and secondary education. Despite the fact that they are run by the government, there is a notion of cost sharing which is still a burden to many households. The students still need to pay tuition fees (though it is low compared to private schools), make other contributions for education resources, and have to be supported with pocket money for transport and meals. Because of such associated costs of education, many low income households fail to send their children to secondary school. For example, Vicky (participant) has failed to support secondary education for all of her three children aged 26, 23 and 20 years. On the other hand, in low income households whose children have undertaken secondary education, the support of their children’s education has been possible due to support from family and friends, begging from neighbours.

Mrs. Mwendo's two children are in secondary school; part of the tuition fee is paid by the support from different people, but still half of it is unpaid and she is not sure when she can pay it. This has created insecurity for her children's studies, as the school keeps on demanding payment and announcing that they could be expelled.

The difficulties of supporting children's education were also mentioned by better-off household participants. However, compared to the low income households, the better-off households are better off. The point of difficulties for better-off households relates to the increase in the cost of education. The better-off households seek not just education but they consider the quality of education and its prestige. Therefore, for their level of income, they go to private schools which are expensive. However, the experience of difficulties comes about because what they earn is considered to be insufficient to cover the costs of education for all their children. Here, the problem of big families and extended families can be considered to be among the contributory factors. For example, Mr. and Mrs. Kazimoto's household has 11 members, which include 4 children and 5 other children in the extended family. Despite such a huge household, they take care of their parents and siblings. Their income is TZS 2, 000,000 (922 USD). Three children are undertaking secondary education, four children are in primary school and two in nursery school. All of them are in private schools. Their difficulties in paying tuition fees are not because of not having sufficient income, but because of having a large, extended family. Compared to other households of 5 members (average household size of the sample), for example Vicky, the income of the Kazimoto's household would probably have been sufficient to meet their education needs. On the other hand, the problem of the costs of education and difficulties in meeting them is not new; it is experienced locally and is also reported internationally (Lewin, 2009; Usher and Medow, 2010) .

**Figure 6.3 Difficulties Facing Households**




*Source: data analysis by Author*

To summarise, insufficient income brings about failure to support children's education, failure to save, difficulties in undertaking investment, problems in planning for the future, it brings about failure to access health services and facilitates indebtedness. Persistently insufficient income leads to persistent financial difficulties and, hence, poverty. The insufficient income is indicated by a negative cash inflow

### 6.2.9 Household Financial Strategies

Households have been observed to employ several financial strategies for dealing with their financial needs and challenges. Among the strategies used are saving and borrowing. As discussed in section 6.2.2, households engage in saving for various motives. Saving is used as a tool to accumulate funds for supporting children's education, meeting emergent obligations and for expanding business and investment. These savings are done by engagement in saving and credit groups, and saving at home. Besides the 8 household participants who use formal financial services, the other 22 households use saving and credit groups, and saving at home (informal saving).

However, it has been noted that savings accumulated through saving and credit (Self-Help Groups) groups and at home in some instances do not meet the housheolds' intentions. This is due to the weakness of such tools. For instance, Ann (participant) mentions that saving at home is not a very convenient method. Saving at home, in most cases, is affected by drawings prior to the planned period, thereby failing of meeting targets. Saving in self-help groups facilitates accumulation of funds. However, the accumulated funds do not increase as much as they could when deposited in interest earning plans with formal financial institutions. Additionally, saving groups are associated with risks such as loss of money when one member and or leader runs away. Some households explained that they do not participate in social groups for saving and credit because of a lack of trust in groups. For example, no one in Shim's household engages in saving groups. Shim (participant) argues that their non-participation is because of people's dishonesty.

Alternatively, households deal with their financial difficulties by borrowing from groceries shops, friends, relatives,and social groups. A number of households reported purchasing food on credit from groceries to make ends meet. Ten out of thirty households reported purchasing household goods on credit. A very difficult situation is where households buy on credit because they never have enough money. For example, the household of Niko, (head of a household of 5 members), who is informally employed with a household income of TZS 260,000 (120 USD) explains that what he earns is not sufficient to pay rent, food, children's education and other household needs. Such insufficient income makes him always purchase food items on credit from groceries, and borrow from friends to support their children's education. He is, at the same time trying to save little by little, which will be supplemented by a salary advance from his employer for paying rent. Another example is Vicky's household (5 members). The household head engages in offering motorbike transport services (boda boda in Swahili language), and Vicky herself engages in a small business of TZS 10,000 (4.60 USD) worth of capital. Although her family is not facing the difficulty of making ends meet, the household fails to support their children's education, and is faced with difficulties in dealing with emergencies such as sickness and illness. As a result, they borrow money from neighbours who charge interest, and the debt is paid in instalments by borrowing from a savings group. Consequently, in order to pay the subsequent credit from the group, they again borrow from friends, or any person who could be willing to help them. In discussion with Vicky, she reported that she is very unhappy with the chain of debt, and she does not know when her household would be able to break that chain. In that situation, the obtained credit supports the household for a short term; in the long run such a credit is not a help but a burden, as they would always be reliant on debts. They would not be able to make investments, and even the prospect of improving their living standard is very small.

## 6.3 The Relationship between Household Financial Experience Variables

In this section, an attempt is made to explore the association between the varied financial experiences of households that have been observed and discussed in the previous sections. Specifically, the association between income inflow, consumption, saving, investment and borrowing are examined. The importance of this is to spotlight any relationship among the aforementioned financial experience variables to facilitate a better understanding of household demand for financial services. In this juncture, the correlation analysis of household financial experience variables is conducted. For more details about the use of correlation analysis, refer to Chapter 5 section 5.3.1. Table 6.5 presents the correlation analysis results and implication of the findings. However, the correlation matrix for the relationship between financial experience variables is presented in Appendix J.

**Table 6.7 The Association between Household Financial Experience Variables**

| Household financial experience variables | Correlation results | Interpretation and Implication to demand for financial services |
|---|---|---|
| **Income inflows and expenditure** | There is positive correlation, however in-depth examination of individual income inflow variables indicate income from business is not significantly associated with household bills expenses and medical expenses. | This on one hand supports the literature that there is association between household income and expenditure (see for example Modigliani, 1966; Heckman, 1974; Dilek and Çolakoğlu, 2011 for discussion). However, the association may depend on specific income for specific expenditure. For instance, employment income is associated with bills expenses, meanwhile |

| Household financial experience variables | Correlation results | Interpretation and Implication to demand for financial services |
|---|---|---|
| | | income from business is not associated with bills expenses. Alternatively, since income from business include multiple sources (see discussion on income-generating activities section), it is recommended that the individual sources of income are analysed. However, this has not been undertaken in this study as it goes beyond the objective of the study and project time lines. |
| **Income inflows and saving** | There is positive correlation; however the association between employment income and saving appears to be insignificant. | On the other hand, this implies that, households having a permanent salary income is not associated with saving. Meaning that household employment does not influence savings. |
| **Income Inflow and investment** | There is positive correlation, however the association between employment income and investment; income from business and business expansion appears to be insignificant. | This means there is no potential dependency between income from business and business expansion. As discussed earlier, household participants reported failure to expand business from their own sources' income. |
| **Income inflows and borrowings** | The relationship is positive. However, the association between employment income and borrowing appears to be insignificant | This implies that there is dependence between household income inflow and household borrowing. However; in order to understand what causes such results, in future it would be relevant to find out what causes the other. |

| Household financial experience variables | Correlation results | Interpretation and Implication to demand for financial services |
|---|---|---|
| **Saving and expenditure** | Total household saving is indicated to be positively and significantly associated with expenses such as energy, personal expenses and offering social support, but not significantly associated with expenses such as bills, education, food, medical and business expenses. Specific saving strategies (informal saving, i.e., saving through Self Help groups and saving at home, is strongly associated with education expenses, but insignificant with all other variables. Meanwhile other savings (which include saving through mobile phones) appears to be positively and significantly associated with education expenses, and negatively associated with food expenditure. | This implies the probability that households use different saving facilities for different saving motives. |
| **Saving and Investment** | There is positive correlation with general household investment, however insignificant association with business expansion. | Similar to the difficulties of using business income for business expansion, households fail to accumulate savings for business expansion not only because of low income but also weak saving tools (see discussion in section 6.6). The qualitative findings in chapter 7 confirm the potential of financial services for offering efficient saving facilities (perception about saving facilities subsection section 7.2.2). |
| **Saving and Borrowing** | Insignificant association | Household saving is not associated with borrowing |

| Household financial experience variables | Correlation results | Interpretation and Implication to demand for financial services |
|---|---|---|
| **Borrowing and investment** | Insignificant association | This finding does not support the theory of finance for growth where credit appears to be important for boosting household investments (see for example Beck and Demirgüç-Kunt, 2008; Klapper and Demirgüç-Kunt, 2013).<br><br>This implies that borrowing practice of households is not connected to household capital investment. This also could be reflecting the insufficient sources of credit for facilitating investment. |
| **Borrowing and expenditure** | Insignificant association with all household expenditures except energy expenses and loan repayment. Additionally, loans from banks appear to have significant positive association with education expenses. | On the other hand the finding about positive association between borrowing and loan repayment supports the report of some households that they borrow to repay their loans (see section 6.8) |

*Source: author*

The findings indicate a varied relationship among the household financial experience variables. The findings that the total household income inflows are positively and significantly associated with expenditure, saving, investment and borrowing are in line with the theoretical contentions. This means that household income goes hand in hand with expenditure, saving, investment and borrowing. However, a closer examination of individual sources of income indicates that the association with the mentioned variables may depend on the channel of income inflow. For instance, employment income is observed to have an insignificant association with saving and business expansion. Meanwhile, income from business is positively correlated with saving, but has insignificant correlation with business expansion.

Similarly, total household saving is positively and significantly associated with household general investment but has no significant correlation with household business expansion. Additionally, household borrowing has insignificant correlation with investment and business expenditure. Although these results are not intended to infer causation, they signify that the experience of household savings and household borrowing is not correlated with business expansion. This is contrary to the theory of finance for growth (see Beck and Demirgüç-Kunt, 2008; Klapper and Demirgüç-Kunt, 2013). On the other hand, these findings could be portraying the image that such financial strategies used by households are not strong enough to finance household capital investment. The majority of households reported engaging in saving for emergencies and, following the limitation of borrowing sources and amounts, most borrowings are directed to meeting household expenditures (See section 6.2.6). The presented findings provide a general and broader view of the association among financial experience variables. Alternatively, these findings attract the investigation of the relationship among house financial experience variables, taking into consideration specific household financial experiences and financial strategies.

## 6.4 Summary

This chapter employed financial diary methodology to understand the livelihood and financial experiences of households in relation to demand for financial services. The findings indicate that households in Tanzania, through the selected sample of household participants, are involved in varied financial experiences. Households engage in varieties of income-generating activities to enhance their livelihood. Following the nature of environment that is prone to risks, such as climate changes and financial shocks, they engage in multiple sources of income-generating activities to diversify the sources of their earnings. Households have been observed to hold certain behaviour relating to spending, saving and borrowing. In terms of spending, it has been observed that households are faced with many needs to spend their money. Household expenditure is directed to food, transport, education, business, bills, energy, health, saving and many other items including social support. Because of low incomes, household spending is limited to investment and other personal spending. In order to supplement their income, households engage in borrowing. Their borrowing ranges from the need for food to the need of boosting business and investment. Households also engage in saving for motives such as precautionary needs, deferred purchase, investment and debt payment. However, it has been noted that in both borrowing and saving, households use inefficient tools and sources. Borrowing from Self-Help Groups, friends and credit purchases from groceries are not satisfactory for meeting households' financing needs. Similarly, saving through self-help groups and saving at home limits the amount of saving because of security risks and the temptation of spending. The findings from correlation analysis indicate insignificance correlation between both saving and business expansion, and borrowing and business expansion. In connection to that Ayyagari et al., (2010) document that informal finance is inefficient compared to formal finance. In support of that, the findings from correlation analysis portray that household saving (Self-Help group, at home) is insignificant for business expansion.

Nevertheless, households are faced with financial challenges such as insufficient/low income, business failure, lack of capital and price fluctuation. All these relate to low earnings, seasonal risks, lack of sources of finance and unfavourable changes in the prices of goods and services. Because of these challenges, households are subjected to difficulties such as the problems of making ends meet, difficulties related to expansion of business, difficulties in supporting their children's education, difficulties in taking care of unforeseen events, difficulties with taking care of clothing and failure to improve living standards. Despite their challenges and difficulties, households use various strategies to deal with such challenges. They engage in saving and borrowing through self-help groups, friends and relatives, groceries, engaging in multiple income-generating activities, selling of assets, support from friends and social groups. As discussed in section 6.2.8 the strategies used are not sufficient to deal with these challenges. In support of that the results from correlation analysis show that there is no association between household saving through informal facilities and business expansion, nor other household expenditure except education expenses. Similarly, there is no association between household borrowing and investment and, household borrowing and all household expenditures except for loan repayment and energy expenses. On the other hand, it has been observed that there is association between household total income inflow and saving, household total income inflow and investments, household total income inflow and expenditure and, household total income flow and borrowing. This on one hand implies that households need financial services other than their informal sources for supporting their livelihood and general financial life.

On the other hand, the findings indicate that households face a challenge of low, or lack of, financial literacy and money management skills, which are essential for controlling and managing household finance. Although the majority of households have attained primary education, most of them could not manage even simple recording of their finances and information. During the fieldwork, most households could not record their cash inflows and outflows in diaries prior to training. This shows that attainment of primary school education alone is not sufficient for facilitating household financial skills. The findings by Behrman et al., (2012) indicate that positive effects of schooling are improved by interacting it with financial literacy. Additionally, the majority of households do not understand financial services from the basic level of saving services to investment services. This affects households' use of financial services and household financial management. Thus, financial literacy is crucial for improving saving, making better decisions about borrowing and general financial decision making (Lusardi 2008; Lusardi and Mitchell 2011; Gaudecker and Von, 2015).

The interesting point is that households can adapt financial knowledge. As mentioned earlier, based on field experience at the beginning of diary practice, most households could not record their finances. However, as the field work continued with the household practice of filling of diaries, the majority of households reported and appreciated that the practice of recording in a diary, along with frequent meetings discussing their financial experiences, have improved their skills for keeping records of their finances and encouraged saving behaviour. This supports the suggestion that financial education programmes can help improve household saving behaviour and financial decision making (Lusardi, 2008).

This chapter has highlighted the financial experiences of households. In chapter 7, household beliefs about financial services are examined and discussed.

# CHAPTER 7 : HOUSEHOLD BELIEFS ABOUT USING FINANCIAL SERVICES

## 7.1 Introduction

Following the observed financial experiences practiced by households presented in chapter 6, this chapter focuses on identifying beliefs held by households about the use of financial services. The significance of this chapter relates to; firstly, underscoring what households' beliefs are about financial services, and alternative sources of finance used. On the other hand, investigation into household financial experiences conducted in the previous chapter was important for understanding the beliefs held by households. As discussed in chapter 3 section 3.5, household financial experiences could shape their beliefs about financial services. Secondly, identifying household beliefs about financial services offers an important foundation for establishing household behavioural factors to be examined for the use of financial services (see chapter 8). According to Ajzen and Madden (1986) and Ajzen (1991), the performance of behaviour depends on behavioural related constructs that are subsequent to the underlying salient beliefs (Ajzen, 1991). Alternatively, the findings in this chapter offer input to policy makers. They recommend that financial inclusion policy initiatives should capitalise on the root of the behavioural influence for the use of financial services. Additionally, this gives input to suppliers of financial services for designing products that are relevant to household beliefs.

The chapter includes the following sections. Sections 7.2 to 7.4 discuss the findings regarding beliefs held by households about using financial services. Section 7.6 reports and discusses the alternative sources of finance used by households. The last section offers a summary of the chapter.

**The Findings about Household Beliefs concerning the use of financial services**

Table 7.1 presents the findings about beliefs held by households concerning the use of financial services based, on household participants' response to open ended questions.

As described in chapter 5 section 5.3.1, the analysis of households' beliefs about financial services employed the qualitative thematic method on participants' responses (Attride-Stirling, 2011). As elucidated in chapter 5 subsection 5.2.2, the current study builds on the theory of planned behaviour, in which the design of questions conforms to Ajzen's (2002) recommendations for eliciting salient beliefs about behaviour. It is important to note that the current study is not aimed at testing the theory of planned behaviour, the use of such theory is intended for facilitating the exploration and understanding of household behavioural characteristics. According to Gilbert (2001), the importance of theory in research is based on its ability to offer insights about the world being studied and ways to ask new questions. Consequently, the exploration of household beliefs is reflected in three major concepts. In brief, the concepts include household perceptions about financial services, perceptions about social influence for using financial services and perceptions about ease or difficulty of using financial services. In relation to the theory of planned behaviour, perceptions about using financial services correspond to behavioural beliefs which reflect the behaviour. Perceptions about social influence for using financial services correspond to normative beliefs and, perception about ease or difficulties for using financial services reflects control beliefs.

The findings indicate that households hold varied beliefs about the use of financial services. Despite the fact that financial services matter for economic wellbeing, as literature suggests, (see chapter 2) household participants have indicated that the use of financial services is both positively and negatively perceived. There are five subthemes in relation to positive perception, and three subthemes in relation to negative perceptions. Additionally, social pressure is perceived to play a role in influencing household decisions to use financial services. This is based on two subthemes; social groups, family and friends; and the third subtheme relates to other factors. Perceived difficulties of using financial services include aspects such as features of financial services, financial status, spending behaviour and lack of financial knowledge. These are considered to be factors that hinder households from using financial services. Meanwhile, participants indicated access and use of financial services from five alternative sources. The identified beliefs held by households, agree with the suggestion by Ajzen(1991) that people hold certain beliefs about an act/object.These fi ndings are discussed in the following sections.

**Table 7.1 : Themes Related to Households Beliefs about the Use of Financial Services**

| Theme: | Concepts | Organising themes | Basic Themes |
|---|---|---|---|
| Household Behavioural characteristics for the use of financial services | Households' perceptions about financial services | Positive perception about financial services | Security of financial services |
| | | | Saving facilities |
| | | | Money management instrument |
| | | | Financing facilities |
| | | | Improving economic wellbeing |
| | | Negative perception about financial services | Cost of financial services |
| | | | Complications to access to financial services |
| | | | Deficiency in security |
| | Households' perceptions about social influence for the use of financial services | Perception about social influence in approving | Family and friends |
| | | | Social groups |
| | | | Other factors |
| | | Perception about social influence in disapproving | Family and friends |
| | | | Other factors |
| | | | No social influence |
| | Households' perceived difficulties about using financial services | Perception about difficulties of using financial services | Characteristics features of financial services |
| | | | Income problem |
| | | | Spending behaviour |
| | | | Financial knowledge |
| | | | Lack of interest |
| | Households' alternative sources of finance | Alternative source of finance used by participants | Saving and Credit groups |
| | | | Engage in direct investments |
| | | | Mobile phone services |
| | | | Saving at home |
| | | | Merry go round |

*Source: Author compiled findings about household beliefs about financial services*

## 7.2 Household Positive Perceptions About Using Financial Services

This category refers to the behavioural beliefs individuals and households hold about the use of financial services. Participants were expected to provide their opinion about the advantages and disadvantages of using financial services. The aim of this was to understand the perceptions of households about using financial services. Viewing financial services to be advantageous reflects a positive perception, and the opposite of such a view is negative perception. Following the theory of planned behaviour, attitudes towards financial services are the result of salient evaluation of financial services. Examining the responses to the question requiring participants to provide what they consider the advantages of using financial services, there are five subthemes that have emerged highlighting positive perceptions of using financial services, as indicated in table 7.1. On the other hand, three subthemes emerged exposing the negative perceptions about using financial services. Table 7.2 presents the themes related to participants' opinions on what they consider advantages of financial services. It is important to note that, due to the qualitative nature of the topic understudy, the earned responses reflects the opinions of participants, in which case some participants offered one opinion/response whereas others offered more than one opinion. Relatively, seven participants stated three points each, fifteen participants have stated two points each, and six participants offered one point each. This totals 57 interrelated responses. Lack of response from the two participants who did not offer their opinion regarding what they consider to be advantages could, on one hand, mean that they do not conceive any advantage about financial services. On the other hand, they might have just exercised their free will by not responding. The next section discusses the emergent themes regarding positive perception (beliefs about using financial services).

### 7.2.1 Perceptions about Security of Financial Services

Security associated with the use of financial services is the most positively perceived aspect of financial services. Among the five aspects, this subcategory earned the highest score. Table 7.2 indicates that 44% of responses related to the advantages of financial services are directed to the safety offered by using financial services. Participants described financial services to be associated with security of funds/money against theft compared to holding cash in their homes or in their hands. Participants believe that, when keeping money with formal financial institutions, their money is safe and secure. See, for example, at the following statements by participants, "The advantages of using formal financial services, is first the money is safe and secure…" (Annie, Participant). "The advantages of using formal financial services are basically related for money security reasons." (Josh, participant). "The first advantage is that money is kept at a safe place…" (Athu, Participant). Conversely, non-use of financial services could result in not benefiting from the expected advantages. Regarding this, participants reported the disadvantages they face by not using financial services relate to lacking security of their funds. For instance, Shim (participant) states that not using financial services is associated with risk related to theft and/ or loss of money in case the house catches fire. Additionally, lack of use of financial services which causes households to fail to save their money at a secure place.

In comparison to alternative ways of keeping money, such as keeping money with a family member,friend or shop owner, they describe financial services offered by formal financial institutions as less prone to injustice. For example, "… they can't be lost nor face any injustice" (Debo, participant).Similarly, it is argued that savers may lack the ability to collect and process information regarding the safety of their funds (Levine, 2005). Financial institutions, through the acceptance of deposits and offering of savings mechanisms, facilitate the lenders' need for safety and risk management. Although individuals and households can make their savings in the form of in-kind saving (for example livestock, jewellery), such savings bear a risk that they cannot readily be converted into cash. Saving in the form of cash at home also bears a risk of loss related to theft and fire, as mentioned earlier.

This finding is consistent with the environment of Tanzania in terms of security. Households face the risks of theft, robbery and lack of trust of other people about money. The risk of holding cash appears to be substantial, such that people may incur a high average fee of about 7.3% to secure their money with mobile money services (Economides and Jeziorski, 2016). Therefore, financial institutions having a well-defined security system, security guards, strong secure buildings and insurance attract a belief of safety from individuals and households. Although not directly discussed in chapter 6, during data collection one household diary participant (Shim, participant) reported the incidence of theft occurred in his household including bags that contained money and other items.

**Table 7.2 : Household Positive Perceptions**

| Perceptions about using financial services | Frequency of responses | Percentage |
|---|---|---|
| Perception about security | 25 | 44% |
| Perception about money management | 11 | 19% |
| Perception about Saving | 12 | 21% |
| Perception about improving economic wellbeing | 5 | 9% |
| Perception about financing | 4 | 7% |
| Total responses | 57 | 100 |

*Source: Author data analysis*

### 7.2.2 Perceptions about Saving Services

Facilitating savings is another aspect that has been highlighted by respondents with regard to their belief in the importance of formal financial services. Twenty-one percent of responses describe formal financial services to be crucial for offering saving facility as well as stimulating savings. On the other hand, one would ask what makes households positively evaluate the saving as a financial service? The answer to such a question relates to the importance of savings for households in low income countries. There are findings documented in the body of literature concerning the role of savings for households. For instance, financial experiences of households presented in chapter 6 indicate saving is an important strategy used by households for financing life events. Similarly, Lusardi et al., (2011) found savings to be a major strategy in dealing with household finance, such that savings services by financial institutions are valued. Keynes (1936, Chapter 9 p.73) describes eight factors that stimulate individuals or households to engage in saving. These include; precaution saving (for unforeseen events), foresight saving (for anticipated future including education, old age), to enjoy interest and appreciation (calculation), wealth improvement, independence (to enjoy a sense of independence and the power to do things without a definite idea or specific intention), speculative motives (enterprise, business project), “to bequest fortune” (pride), and “to satisfy pure miserliness” (avarice). In the current study, households indicate that saving is important for meeting three motives. One of the aspects for saving is motivated by saving for old age. This is described by the following statement "… they are very important because they enable saving for old age" (Beck, participant). In this aspect participants indicate their concern about the future. This postulates the importance of social security and pension services to households, and household perceptions of such services. The life cycle hypothesis by Modigliani (1966) suggests that households engage in saving more or less consciously, reflecting the need to smooth consumption over the life cycle.

It has also been noted that respondents positively evaluate formal financial services for saving for precautionary needs. Participants report the advantage of financial services that "the money saved in a bank can help in the time of need" (Mumi, participant); Vude (participant) reports that using financial services "facilitates saving, when you face a problem which demands money it becomes easy to solve". This also agrees with the finance literature that saving services are important for consumption smoothing (Deaton, 1989; Newman et al., 2008). Considering the situation of households in the low income countries, where financial shocks (shocks related to income fluctuation, agricultural weather problems, and unforeseen problems) are among the major sources of financial problems, saving facilities by financial institutions are regarded to be useful for taking care of such problems. Additionally, financial services are positively evaluated for facilitating savings for investment. Respondents have indicated the concern of savings for investment in order to facilitate children's education, and asset building such as building houses and accumulation of capital for business. While explaining the importance of financial services, Teddy (participant), for instance, reports that financial services "… are also important for old age, and in supporting children's education". Similarly, Hannah (participant) mentions "there are advantages of being able to engage in development issues like house building, business and supporting children's education". This is consistent with the suggestion by Beck and Brown (2011) that access to financial services enables households to handle their income and expenditure over time, insure themselves against financial and life vulnerabilities and carry out productive investment. On the other hand, non-use of financial services may lead to failure to save for emergencies and carrying out of investment visions. Hannah and Ann (participants) explain that non-use of financial services impedes saving for various investment plans. Similarly, Mumi (participant) mentions that non-use of financial services could lead to difficulties in dealing with financial shocks. Thus, the saving facilities offered by financial institution are considered to be a useful service by households. They are useful for investment plans and dealing with financial shocks.

### 7.2.3 Perceptions about Money management

Results indicate that 19% of responses have shown favorable beliefs about financial services. The respondents consider financial services to be suitable for controlling and monitoring spending. Responding to the question about advantages Shim (participant) states that financial services "… help to avoid unnecessary spending"; similar to that Mbele (participant) mentions the use of financial services to "…discourage unnecessary spending". Thus, non-use of financial services, by holding cash, is prone to the risk of spending income for unnecessary or unplanned needs. The perception that financial services are advantageous for income and money management is also manifested in the response to the question regarding the disadvantages of not using formal financial services. Non-use of formal financial services has been portrayed to be associated with lack of financial discipline. For instance, the statement, "…in my side, they are very important because if I remain with money at home it makes it easier to use them even for unnecessary need/spending" (Atu, participant). Similarly, Violet (participant) explains that by holding cash in hand (not using financial services), it is possible to engage in spending money for unnecessary needs.

As explained earlier, the use of financial services has been observed to offer the advantage of imposing financial discipline. These findings are consistent with the proposition that the process of increasing financial inclusion should not leave aside the importance of money management (Rhyne 2012). They point out that financial inclusion (increasing the use of financial services) should aim at supporting people with money management, improving their ability to track their financial status and enabling them to make good financial decisions. Evidence from financial diaries indicates that households where the majority are non-users of financial services face the problem of money management in their spending pattern, as they fail to adjust their spending during low and high income periods (see discussion chapter 6 subsection 6.2.5).

Household participants’ cash inflows and cash outflows did not balance for most of the diaries of households who do not use financial services. The balance in diary records and cash in hand in most cases were found to be different. There could be more cash balances in the diary records, which does not reflect the actual cash in hand/at home. Upon further enquiry, participants reported to find themselves overspending and or spending unnecessarily, which was not properly recorded.

### 7.2.4 Perception about Financing

Financing is another aspect that indicates positive evaluation of use of financial services. Responses from participants indicated that using financial services facilitates access to credit for increasing capital, and facilitates investment in assets. The following quotations provide typical examples of positive perception about financial services relating to financing. “There are advantages of being able to engage in development issues like house building, business and supporting children’s education. When you get credit (borrow) from bank it increases capital” (Hanna, participant). This is consistent with the findings presented in chapter 6 subsection 6.2.6 and section 6.3 that households’ informal sources of financial services are not sufficient for facilitating capital investments. In the discussion with the participants about their income generation and investments (financial diaries field work), the majority reported having little or no capital, such that credit facilities are potential to them. The importance of this relates to the fact that many people in Tanzania, as well as developing countries worldwide, are poor. Based on international poverty lines, 43.2% of Tanzanians live below the poverty line (World Development Bank, 2012). This is why credit facilities are considered to be potentially relevant for their demand for startup capital and capital expansion. Such perceptions support the literature, which emphasises finance for growth. Beck and Demirgüç-Kunt (2008) and Klapper and Demirgüç-Kunt (2013) argue that use of financial services is carrying out productive investments. Consequently, non-use of financial services may lead to lack of finance, and failure to pursue productive investments.  One of the participants (Athu, participant) describes non-use of financial services leads to lack of financial experience and failure of obtaining capital for business.

### 7.2.5 Improving Economic Wellbeing

It has been noted that, in addition to the specific advantages of using formal financial services as discussed above, there is a general perspective that financial services are associated with the improvement of living standards. A number of responses describe this phenomenon. This is represented by specific expressions, ranging from improving living standards to general expressions that financial services are generally advantageous. For instance, "There are many advantages such as banks (financial services) improve living standards in general", explained by Andy (participant). Another participant described the use of financial services to facilitate living as he mentions "…makes life easy" (Upendo, participant). This can reflect the evaluation of the importance of financial services for financial life. It covers the whole function of financial services. The participants might have reached such conclusions after considering the advantages in the whole package of financial services, ranging from consumption smoothing, risk management, capital allocation and investment. Using financial services offers an opportunity for saving for various motives (refer to perceptions about saving, section 7.2.2). Financial services offer security for funds, facilitate money management, payment facilities and credit facilities which are essential for economic wellbeing. The importance of these also reflects the financial challenges facing households, where financial services could be important (see discussion in chapter 6). In relation to that King and Levine (1993); Bae et al., (2012); Ayyagari et al., (2013) reported that use of financial services is associated with the improvement in economic well-being. This implies that there could be deterioration or static economic wellbeing if there is non-use of financial services. In response to that, participants reported non-use of financial services to be associated with lack of security, failure to engage in productive saving, inefficiency in dealing with financial shocks, failure of getting capital and failure of carrying out potential investments and, thus, general economic wellbeing.

## 7.3 Household Negative Perceptions About Using Financial Services

Despite the fact that participants indicated positive perceptions about financial services, they also reported the disadvantages of financial services. Responses about disadvantages of financial services were realised by eliciting a question that required participants to describe what they consider to be the disadvantages of financial services. The response to this question highlights the aspects of what the negative perceptions of participants are, with regard to the use of financial services. The findings indicate that 14 out of 38 responses consider the use of financial services to be unfavorable; meanwhile more than half of responses still recognise the use of formal financial services to be favourable. Combining both responses, that is responses from the questions about advantages and disadvantages, the majority of responses signify a positive evaluation of the use financial services. The analysis about disadvantages of financial services has produced four subthemes in relation to negative perceptions about financial services. These include general weaknesses, cost of using financial services, complications of access to financial services and deficiency in security of financial services.

### 7.3.1 Unfavourable Cost of Services

Costs related to the use of financial services have been reported to be among the disadvantages of financial services. The participants mentioned that bank charges for use of financial services are not fair. For instance, Wetu (participant) mentions bank charges and deduction of money through fees. The operation of financial services by providers is associated with the cost of running services. For that reason, it is generally agreed that services cannot be freely offered due to the costs of operations. However, setting of charges and fees should take into account both the costs of operations and affordability of such charges to consumers. Participants reported that bank charges and fees are too high in relation to income. Vude (participant), who once used to have a saving account, explained that she stopped operating the account after finding out there are huge deductions, which substantially decreased her money. Similarly, Joseph (participant) stopped using his account because of the maintenance fee. Even those who are still using financial services complain of the high cost of services. From discussions with participants, Veronica (participant), an informal employee, who maintains a bank account for salary purposes at SHK bank, explained that her employer facilitated the opening of her account. She mentions, “I don’t see the advantage of financial services, they just rob our money”. In Veronica’s case, her monthly salary income is TZS120, 000($55), the bank charges TZS5000 ($2), she takes home TZS 100,000($53) the charges are approximately 4% of her monthly pay. Accordingly, Rehema (participant), who also maintains a savings account with a certain bank, comments that financial services generally do not have disadvantages but she suggests bank charges and fees are high and need to be reduced ("There is no disadvantage, however the deductions and charges should be reduced a little bit").

The problems of costs of financial services have been mentioned in the literature. Beck et al., (2008) documents affordability of financial services to be among the barriers to use of financial services. The investigation of barriers to access around the world by Beck et al., (2007) suggests that high ratio of minimum balances, fees and loan amounts to GDP per capita have led to limited affordability in large parts of the developing world. Measuring the cost of services in relation to GDP per capita, specifically for Tanzania is beyond the scope of the current study.

### 7.3.2 Problems of Access to Financial Services

Similar to the negative attitude related to costs associated with the use of financial services, participants negatively evaluated accessibility to financial services. The category is includes the reported disadvantages related to complications of getting financial services, reliability and convenience of services. Participants reported the problem of bureaucracy and difficult conditions for accessing credit facilities. This is revealed in two scenarios. One relates to the access to credit, where providers would require collateral. An example quotation "the disadvantages are when you need to borrow, my ghosh! …, they offer very difficult conditions, if you don't have a house or title of land, they don't give out credit" (Neema, participant). Neema (participant) owns a house and has a plot of land but cannot secure a loan from formal financial institutions because of a lack of title deed. The major issue is a demand for registered land for securing loans. Although the demand for collateral is intended to secure the loan against risk of default, such a demand is considered to be a disadvantage bearing in mind the reality of the situation of land registration and legal system in Tanzania. According to OECD (2013b), only 3% of land in Tanzania has been registered. The majority of the population lives in squats and owns unregistered land. Therefore, requiring registered land to secure loans would imply failure of access to credit for most Tanzanians. This could, on the other hand, impede the role of financial services for consumption smoothing and facilitation of growth of investment.

The second scenario relates to time taken to access service, and speed with which a person may get money back from their accounts. Participants mentioned the problem related to delay or failure to access their deposits. Some considered handling cash to be better than keeping money with financial institutions, as financial services are considered to be associated with inconveniences upon withdrawal. For example, "…there are inconveniences of using banks. When you need your money fast, you won't get them immediately as it could be when you have them by yourself" (Wendy, Participant). Similarly, Joseph (participant) reports "the disadvantage of keeping money in banks is that I can face immediate need of money (financial need), and then I may fail to get money in the due time". This report portrays the problems related to inefficient service delivery. This finding is consistent with the report of the FinScope survey (2013) regarding the supply barriers to financial inclusion in Tanzania (FSDT, 2013a).

#### 7.3.3 Deficiency in Security

Despite the fact that participants reported security and safety of financial services to be the most perceived benefit of using financial services, few participants claimed that security of financial services is still low. This is a rare perception compared to the households' trust about security of financial services. However, it is worth mentioning for highlighting households' perceptions. Participants provided general statements in response to disadvantages of financial services; for example Dave (participant) said "…security is still very low". Compared to what the same participant outlined about the safety of financial services being an advantage, in the question eliciting advantages of financial services, that notion of low security would mean deficiency in security. It could be that the participant considers financial services to be more secure than alternatives sources, but the security offered is still unsatisfactory. On the other hand, low security may not be the problem of financial institutions. It may refer to problems of the security system in the country. Participants reported facing theft immediately after coming from a  bank to be a disadvantage of financial services, for example, Mbele (participant) mention "… facing theft immediately after coming from bank is a disadvantage of using financial services". Reflecting the situation where theft occurred outside the bank shows a security problem either outside the financial institutions or the general risk of theft in the country. Thefts occurring immediately after coming out from financial institutions have been taking place (media reports, although data could not be collected). Financial institutions are also subject to risk of theft and robbery. Recently, bank robbery and theft events have been reported. For example, a robbery occurred at National Bank of Commerce in 2004 whereby large amounts of money were lost; this had never previously happened in the history of Tanzanian banks. Stanbic Bank in 2014 lost about TZS 1billion, and other similar events. Although financial institutions have insurance policies in place, such robbery and loss of money psychologically affects consumers and prospective consumers of financial services.

On the other hand, participants explained their experiences resulting from not using financial services. In this scenario, participants confirm not experiencing the benefits of using financial services because of not using them. Participants recognise that lack of using financial services leads to facing insecurity, mismanagement of money, lack of financing and failure to pursue productive investment.

## 7.4 Household Perceptions about Social Influences in the Use of Financial Services

It is generally well documented that social pressures play a role in behaviour and decisions to perform behaviour (Ajzen, 1991; Ormerod and Smith, 2001; Granovetter, 2005). In eliciting beliefs about social influences for using financial services, participants were asked to list the people and social groups that can approve or disapprove their decision to use financial services. The majority of responses from participants reported people or social groups influencing their decision to use financial services. Participants reported two categories of social pressure that are believed to play a role in affecting their decision to use financial services. These include family and friends, and social groups.

The family and friends subcategory has been observed to be the most influential in affecting the use of financial services. Participants reported various family members who can influence their decision to use financial services. The influence ranges from parents, siblings and spouses to other relatives. The response of family being part of approving individual and household decisions has appeared nine times. In this regard, for example, “my family would influence my decision to use financial services” was mentioned by participants (Mwendo, Judy and Debo). The reported family members include brothers, sisters, mother and father and spouse. For example, such quotations as “…brother and mother”, “…my father”, “my sister”, “My husband is the most important person that can influence me to use formal financial services” were mentioned by a number of participants. Participants also reported their relatives can influence the decision to perform behaviour. Hanna (participant) states “my relatives” can influence the decision to use financial services. In comparison to the influence of family, it is noted that friends and neighbours are more often cited in influencing the use of financial services than family. For instance, “My friends” (Aggy, participant) and Vicky (participant) state “… my neighbours do influence me”. The finding that friends and neighbours are more influential in approving the use of financial services than family and relatives relates to the proximity and community connection of the households. The majority of participants had their original domicile away from the city. Thereby, their financial decision making could be more associated with the persons who they frequently interact with than their original families, which are in a different region. These findings support the argument of Granovetter (2005) that social structure affects economic outcomes. On the other hand, the findings that friends and neighbours are more prominent in influencing households’ decisions to use financial services than family calls for attention to research into financial inclusion and consumer behaviour. In addition to understanding family financial decision making the influence of friends and neighbours should be taken into account.

The second subcategory concerning the way social pressure affects the use of financial services relates to social groups. Participants reported their belief in social groups in influencing the decision to use financial services. Teddy (participant) reports “…it is my fellow members in our Self Help Group”, that can affect the decision to use financial services. Similarly, Caroline (participant) mentions “Village Community Bank Members”. This supports the notion that individuals, or households, would look at what their influential persons are doing regarding the targeted behaviour, and would engage in the behaviour after such reference. In this way, if the influential group member is not engaging in a prospective behaviour, it may influence non-engagement by other group members, even if the behaviour would have been beneficial for the specific individual or household. On the other hand, the relevance of social groups in influencing the use of financial services is connected to the fact that social groups offer alternative financial services. As observed in chapter 6 subsection 6.2.6 and 6.2.6, although the majority of household participants lack use of formal financial services, at least they obtain informal financial services from these social groups (also refer to section 7.6). Having access to such informal financial services builds trust in members to the point that their decision to engage with formal financial services would be influenced by such social groups.

Despite the fact that participants were asked about their beliefs regarding social influence, some participants (24% of responses) mentioned other factors than social influence. Participants pointed out that it is not people or social groups that can affect the decision to use financial services. They report other aspects which may impact on such decisions. These include financial education, social media, institutions and staff associated with the provision of financial services. Ann (participant) reports that "…it's education about financial services that can facilitate use of financial services". Nico (participant) mention "…groups that offer education about entrepreneurship", Andy (participant) states "…bank officers can influence me", Kazimoto (participant) mentioned government staff, Shim (participant) stated "…media radio, television, posters" influence their belief about the use of financial services. Additionally, some mention that companies affect their use of financial services. The influence of a company is connected to employees, whose use of financial services could be influenced by their employers. For example, Wendy (participant), who is employed as a security guard, explains her use of financial services to be connected to her employer's influence. On the other hand, such belief is connected with undue influence from the employers. Eddy, a participant (field notes), complained that he didn't want to hold a bank account, "…it is my employer who wanted me to have a bank account for channeling my salary…" It has been a norm for the majority, if not all, employers to require employees to have bank accounts for facilitating salary payments. This is observed locally and internationally. Although it is for security purposes and efficiency in payments from the side of the employer, it is also security for the employee. However, some employees seem to not appreciate the service, as mentioned above. In contrast to those who do not appreciate  the use of financial services as a result of employer linked access, those who are not employed by a formal company believe that they can benefit from advantages of using financial services if they have been employed. For instance, some reasons for not using financial services relate to not being employed. Their belief is that being employed facilitates the opening and/or use of bank accounts and any other related financial services. This means that, in order to benefit from the advantages of using financial services, one needs to be employed. Therefore, companies and employers may facilitate the use of financial services.

The questions about the perception of social influence in impeding the use of financial services has indicated that groups of people who are believed to influence the use of financial services (discussed in previous section) can, in a similar manner, affect the use of financial services. In the examination of responses to the question about social influence in preventing the use of financial services, similar subthemes emerged. As presented in table 7.1, responses from participants indicate that family, friends, neighbours and other factors can affect their use of financial services. Participants reported having a belief that their family and friends can affect their use of financial services. For example, Rose (participant) points out that her sister can affect her decision; Upendo (participant) mentions that her father can impede the use of financial services. Likewise, friends and neighbours are reported to play a role in impeding the use of financial services. A typical example quotation states  "…my friends and neighbours" can impede one from using financial services.

Others have indicated that other people's experience with the use of financial services plays a part in their use of financial services. If influential people had a bad experience with the use of financial services, it may inhibit their decision to use financial services, and vice versa. One example of such a quotation mentions "…small entrepreneurs who have used the services" can influence others to use financial services (Caroline, participant).

Following the nature of qualitative research, where participants have an opportunity to provide their experience and opinion, there are responses from participants that show that factors other than social influence play a role in individuals' decisions to use financial services. Although responses that reported factors other than social influence in preventing the use of financial services could have been viewed to be irrelevant for eliciting belief, it may be considered worthwhile to report other factors from the point of view of participants. This reflects the nature of qualitative research, whereby participants are free to give their opinions regarding the subject matter (see Denzin, 1994; Bryman and Burgess 2002; Saunders et al., 2012 for details). A number of participants reported non-belief that social influence affects the use of financial services. For instance, "Myself, there is no one who influences me not to use financial services" (Vicky, Participant). "There is no person or social group that can influence me not to use financial services" (Beck, participant). "It's not people who can affect my decision to use financial services, and it's the economic condition being low" (Teddy, participant). "There are no people who could influence me not to…" (Nico, participant).

The question enquiring about social pressure in influencing the use of financial services was responded to by all participants; meanwhile, the question enquiring about social pressure in influencing non-use of financial services had a lower rate of response. Four participants out of thirty did not offer any response to the question. Not responding to the question could have several meanings. Firstly, there is the possibility that participants perceived social pressure to have no influence in affecting their use of financial services. Secondly, one could infer failure to respond is related to a failure to understand the question. However, the questions were written in a very simple language that is common to the participants, and the same language was used for other questions that received full responses. Additionally, the interviewer was in the field to clarify. Thus, not stating whether social pressures influence use of financial services makes it less certain than other factors. Hence, social pressures could be viewed to be less important compared to behavioural beliefs and perception control.

## 7.5 Perceived Difficulties for Using Financial Services

Ajzen (1991) argues that control over a person's behaviours depends on one's beliefs of control over behaviour. Similarly, households' belief about the ease of or difficulty of use of financial services may influence their perceived behavioural control. In other words, in this study, perceptions about ease or difficulty to use financial services refers to the belief participants have about the presence of factors that facilitate or limit them from using financial services. The understanding of household perception of ease or difficulty to use financial services was achieved by including a question about what are factors those participants think create difficulties for them to use financial services. The most often cited factors include problems in relation to characteristics of financial services, low income, lack of financial knowledge and problems related to spending behaviour. These are discussed in the following section.

### 7.5.1 Characteristic Features of Financial Services

The most mentioned category of the perceived difficulties of using financial services relates to the characteristic features of financial services. Participants perceive procedures set for accessing financial services, and associated costs, inhibit the usage of financial services. These were recognised from the following statements reported by participants. “difficult procedures of accessing bank facilities”, “It’s because of high monthly deductions, finding what you saved decreases or even is finished by deductions”, and “I don’t use formal financial services because of fees…” being too high.

The established procedures and conditions for accessing and using financial services are complex in relation to the environment of participants. Following the body of literature regarding the barriers to the use of financial services, prior conditions for accessing financial services and associated costs are among the factors reported to inhibit households from using financial services (Beck et al., 2008; Demirgüç-Kunt and Klapper, 2013). The problem of procedures relates to a demand for much documentation that is frequently very difficult to obtain. For instance, in Tanzania, upon opening a bank account, the prospective customer would require identification (ID) which can include documents such as National ID/employer ID, letter of introduction from employer/ward executive officer and other relevant documents. The problem comes from the reality of the situation of identification in Tanzania. Despite the government initiatives of establishing and issuing of the National Identity, the majority of Tanzanians have not yet secured their National ID. In terms of employer’s ID, the majority of the population are not formally employed. Although, currently, banks accept national voter’s ID, the IDs have not been consistently issued to the point of ensuring standard access by the majority (see for example Nachilonga, (2015) who explains that about 1.7m people were issued National IDs by March 2015 in a country of more than 20m adults). Additionally, letters of introductions from Ward Executive Officers have been associated with bureaucracy. For instance, Rees and Hossain (2013) report the problem of absenteeism of Ward Executive Officers from the place of work. In such circumstances, an individual would have to go through a process of securing a letter of introduction, and then will have to go through the targeted bank's account opening processes. Similarly, upon demand for credit, the involved processes and documentation requirements, including a pledge for collateral (such as registered land), are problematic.

Inconveniences associated with usage of financial services were also stated to be a factor discouraging their use. Participants reported that delays in getting money (access credit), long queues, insufficient services and services being too far away create difficulties in using financial services. The following quotations offer examples of inconveniences of financial services as perceived by participants.

"…delay in getting money" relating to credit facilities.

"…few services compared to number of users (too many users compared to services available)"

"I think sometimes formal financial services are not convenient, as I hear the experience of other people"

### 7.5.2 Financial Status

Another belief about perceived difficulty in using financial services relates to the financial status of households. Tanzania is among the low-income countries, thus her people are also of low income. Although financial services and financial institutions offering such services operate in Tanzania, most participants cited having a low income to be the most important reason for not using financial services. For example, Vicky (participant) mentions that the difficulty of using financial services relates to her low income. Furthermore, Shim (participant) insists that poverty is the major obstacle. Teddy (participant) states economic conditions inhibit the use of financial services. In this regard, participants consider the use of financial services to be possible only when they have a high and sufficient income. Following the comments of participants, the situation may be considered to be contrary to the emphasis being put on financing for the poor (Beck et al., 2007; Bae et al., 2012). If, in reality, financial services are only for people with high incomes, then preaching financial development for poverty alleviation could be of less value. Probably, the belief that financial services are affordable only when one has a high income relates to aspects such as high minimum balance requirements and fees not being affordable for low-income people. In addition to what is discussed in section 7.3 regarding the negative beliefs about costs of financial services, setting a high opening and minimum balance in relation to the low level of income of the majority of the population, could result in difficulty in access, and use of, financial services. Claessens (2006) suggests that the intersection between demand and supply of financial services could occur relative to the costs of providing services and income of prospective consumers. There is a possibility of attracting non-users of financial services by decreasing the price of financial services and simplifying the procedures of accessing them.

### 7.5.3 Spending Behaviour

Lack of financial skills and low income impose difficulties on the use of financial services. Participants reported to have many household expenditure needs, meaning that they are left with nothing to save. See also chapter 6 subsection 6.2.6, that households engage in varied spending and experience financial challenges. Although households locally and internationally differ in many ways, including their level of income, they are similar in that each household has needs. Thus, the needs are there, but the problem is how household needs are dealt with in relation to household income and use of financial services. It is in balancing income and expenditure that money management skills are required.  Probably, participants' problems of spending and their reasons for not having money to engage in financial services is a result of a lack of money management skills. As pointed out earlier, Rhyne (2012) suggests that financial inclusion initiatives need to take into account the aspect of money management.

Lack of financial knowledge is another aspect that has been highlighted by participants. Participants recognise that financial knowledge is crucial for enhancing the use of financial services. A typical example quotation include, “Its lack of understanding about using of formal financial services…” Ann (participant) “I don’t know how to open account” (Neema, participant). This is consistent with the literature that advocates financial literacy for enhancing a broader use of financial services. The existing findings on what may stimulate financial inclusion indicate financial literacy is among the important aspects. For instance, Gale et al (2012) found that financial education may stimulate the use of financial services. Also, Gale and Levine (2010) emphasised the importance of financial literacy for stimulating saving behaviour and general use of financial services. In their field experiment of financial literacy programme, Cole et al. (2009) found a modest effect of financial education on the use of financial services, especially by uneducated and financially illiterate households. This means that lack of financial knowledge inhibits the use of financial services. Conversely, the influence of financial education has to be considered with caution. Financial education is necessary for households but it may not be sufficient for enhancing the use of financial services. Cole et al., (2009) found no effects of financial education on the probability of households opening a bank saving account (based on their full sample). Their findings indicate that the influence of financial education in the usage of financial services differs with the level of financial knowledge. Similarly, Kostov et al., (2015) indicate that basic financial education would be required for facilitating use of basic financial services for non-users, but found no effect of increased level of financial education on increasing level of use of thesel services. Therefore, the influence of financial education in using financial services may be considered to have limits. The influence of financial education in the usage of financial services would depend on the level of financial literacy, specific demand for financial education of households, and levels of financial services. Therefore the emphasis of financial education should consider the level of financial literacy of households and demand for financial education (see Cole et al., 2009 and Annim, 2013; 2015 for details about households’ levels of financial literacy and levels of financial services respectively).

Despite the fact that participants declare that financial services are crucial for economic well being, there are participants who reported not using financial services because of lack of interest. In this regard, the non-use of financial services is not associated with perceived difficulties of using financial services. Neither levels of income, nor product features are perceived to be difficulties for using financial services. It is just the matter of lack of interest in formal financial services. In responding to the question about perceived reasons for not using them, Joseph (participant) points out that his non-use of financial services is just because of lack of interest. On the other hand, lack of interest in using financial services may not have emerged from a vacuum. Lack of interest could be associated with negative perceptions about financial services, viewing financial services as non-attractive. Connected to household negative perceptions about financial services, Joseph (participant) negatively perceived financial services with regard to inconvenience in accessing them. Similarly, lack of interest in using financial services, despite the associated benefits, raises an unanswered question. Could lack of interest mean, or relate to, being satisfied with alternative sources? Meanwhile, Nico (participant) is not using financial services. He has a positive perception about financial services, but has no reason for not using them. Additionally, some participants indicate that using financial services is just a matter of decision. See, for example, the statement "…I haven't decided yet to use financial services" Mumi (participant). The findings that non-use is connected to lack of interest; the use of financial services being a matter of decision, is consistent with the argument by Demirgüç-Kunt et al., (2008). They suggest that non-use of financial services may not necessarily be a result of involuntary exclusion but may relate to voluntary exclusion. However, non-use of financial services as a result of involuntary exclusion cannot be overemphasised. This relates to the fact that the majority of non-use reflects involuntary reasons.

## 7.6 Alternative sources of finance

In the previous sections, the findings about the household perceptions about social influence, and perceived difficulty or ease of using financial services have been discussed. As elucidated earlier, the majority of the population in Tanzania, as well as the majority of study participants, do not use financial services. The aspects mentioned reflect the theory of planned behaviour that emphasises the importance of eliciting salient information regarding beliefs related to behaviour, for identifying beliefs regarding the behaviour (use of financial services). However, analysing the alternative sources of financial services is extended for the sake of achieving a broader understanding of the financial life of household participants without the use of formal financial services. Campbell (2006) points out that households engage in financial strategies based on the relevance of the financial strategy and their perception of qualification. This means that households use financial strategies that they feel they qualify for. That is to say, even when households do not use formal financial services, they have their own alternatives for financing their lives. It is indicated in chapter 6 that households had varied financial experiences and use different financial strategies to finance these challenges. This part in the current chapter discusses in detail the alternative sources of finance used by households.

Consistent with the previous findings about household financial experiences and respective financial strategies in chapter 6, using a qualitative approach (open-ended questionnaire) participants report to have access to, and use, related financial services from many sources other than formal financial institutions. Consider, for instance, this expression “there are many sources of financial services that come in mind other than formal financial institutions” (Beck, participant). This is relevant to the findings about financial strategies used by low-income people (Rutherford 2003; Collin et al., 2005) who report that many financial strategies are used by low-income households. Table 7.3 presents the alternative sources of finance used by participants. The analysis of participants’ responses have highlighted five alternative sources of finance.

The most widely used strategy is engagement in saving and credit groups/societies. Participants reported that their engagement in such groups facilitates access to savings and credit facilities. Saving and Credit groups refers to groups that have been formed for offering saving and credit to the members in a particular community. This involves ROSCAs, Savings and Credit Cooperative Organisations (SACCOs) and Village Community Banks (VICOBA). Although the researcher could not enquire more about this type of group, due to time constraints, most of the savings and credit groups are groups established in the community to facilitate social and economic empowerment for members (Allen and Panetta, 2010). They offer savings services based on the agreement among group members, and credit facilities are associated with the savings one has. Since they are based on the interest of members and agreement among the members, their operations meet the level of income and interest of members in relation to their financial needs. Saving and credit groups, unlike formal financial services, are characterised by flexibility, easy access and sociability. Jones et al., (2000) describe several features that induce greater access to informal financial services. These include being easy to access, involving less processing time, flexibility in interest rates, flexibility in loan terms and collateral requirements. Despite the fact that they are inefficient, as argued by Ayyagari et al., (2010), they are considered to meet household demands for financial services. Consistently, the findings about financial experiences presented in chapter 6 (see subsection 6.2.7) indicate that households engage in savings and credit groups.

**Table 7.3: Household participants' alternative sources of finance**

| **Category** | **Some Quoted responses** | **Frequency distribution of responses in % N=43** |
|---|---|---|
| Saving at home and friends | I keep my savings at home | 16% |
| | I use kibubu/ pot saving at home | |
| | I keep money myself at home in the pot | |
| | In case I face financial need, I borrow from friends, then repay back when I get money. | |
| Engage in direct investment | Investing in buying mashamba(land for agriculture) | 26% |
| | Investing in land or money | |
| | Business | |
| | Education | |
| Merry-go-round | I engage in merry go round with people I know… | 9% |
| | I use Self Help Group, … | |
| | Merry go round, … | |
| | I engage in saving by merry go round (mchezo) | |
| Mobile money | I do keep my money in Tigo Pesa | 21% |
| | I use my phone, mobile money | |
| | I use M-pesa for saving | |
| | I use tigo- pesa to keep and save my money. | |
| Saving and Credit groups | I use saving and credit group | 28% |
| | I use Saving and Credit groups | |

| Category | Some Quoted responses | Frequency distribution of responses in % N=43 |
|---|---|---|
| | Myself, I am in(use) VICOBA | |
| | Small groups of saving and credit (Succos) | |
| | I also engage in self-help group for saving and credit | |

*Source: Author summary of the results*

It is interesting to note that participants reported investment in such activities as agriculture, business and education to be among the alternative source of financial services. The instance of investment as a source of finance relates to the perception of participants that, instead of keeping money with financial institutions, they find it better to engage their money in other productive activities. For comparison purposes, examples of investment services by formal financial institutions include, finance of investment projects, fixed deposit and investing in purchase of shares. Participants prefer to spend their money directly into business and other related investments, instead of saving with formal financial institutions, because of low returns that may be earned from them. Participants argue that it is better to put money (though it could be small amounts) directly into business circulation, as it could earn a greater profit than accumulating savings with financial institutions, earning small or even negative returns and avoiding deduction of maintenance fees.

Investment activities being considered relate to purchase of land for agricultural and business use. The purchase of land for investment purposes is done even in the very remote areas due to the increasing value of land. Instead of investing money with financial institutions in services such as fixed deposits, the buyer of land hopes to resell the land at a higher return compared to what s/he could earn from fixed deposits or other investment opportunities offered by formal financial institutions. Recently, the value of land in urban, as well as rural, Tanzania has shown a remarkable increase. For instance, Kombe and Kreibich (2001) discuss the increase in the value of land and increase in land buyers for speculative purposes in Tanzania. Participants indicated that, instead of applying for credit from formal financial institutions for expanding a business, they wait for resale of purchased land or a gradual circulation of profit into the business. In relation to the demand for pension services (saving for old age), participants further argued that they invest in land and building of assets for old age. However, household financial experiences reported in chapter 6 identify no major investment conducted during fieldwork. This could be because household accumulation of funds grows too slowly for investment to take place within the period of three months.

A remarkable observation is that some participants reported investing in children's education. Relatively, household financial experiences discussed in chapter 6 subsection 6.2.5 indicate spending on children's education is among the important categories of household expenditure. This is not only for the children's future, but also they expect the support from these children in old age. They invest in children's education as an investment in human capital. Yueh (2001) points out that parent's decision to invest in children's human capital is motivated by returns to education and future transfers. From the traditional perspective of households in Tanzania, the majority of parents were considered to send their children to school and further education with the intention of benefiting from them in their old age. This behaviour could be considered to reflect cultural values. It is transferred from one generation to another despite the establishment of pension schemes. Despite the risk of changing family-related behaviour, where children may not take care of parents as intended, the belief that they will do so still holds. Unlike developed countries, where the majority have access to pension services to contribute to their old age, in Tanzania parents are being taken care of by their children or relatives when they reach old age. This is because of non-use of pension services and government budgetary constraints regarding social security (Spitzer et al., 2009). However, investing in children with such expectations would not be advisable on four grounds. Firstly, children have the right to be taken care of, and parents have a responsibility to prepare a better future for their children with love (see for example Tanzania Law of the Child Act 2009). Secondly, investing in children for old age is vulnerable due to the risk of them failing in their studies for various reasons. Thirdly, the risk of children's changing behaviour may result in the failure of the plan to materialise. Fourthly, children are human beings, they are subject to universal risks of mortality; they may die before their parent's old age.

Participants reported using their mobile phones through the vendor network as an alternative source of accessing, and using, financial services other than conventional financial services. Mobile money, through phone services, is used for facilitating payments and transfers of money among parties in Tanzania. FSDT (2014) reports that about 33.1% of users of mobile money services use them for sending and receiving money. Similarly, the field experience related to household financial practices recorded in diaries as discussed in chapter 6, indicates 3 out of 30 households used mobile money services for emergency saving. Demirgüç-Kunt and Klapper (2013) highlight the achievement of mobile money services in Sub-Saharan Africa, whereby 16% of adults have been able to use their mobile phone to make bill payments and to send and receive money. Additionally, Tanzania is among countries that have reported a successful experience about the use of mobile money (Di Castri and Gidvani, 2014). Participants consider payment and transfer services offered by mobile money to be more a convenient method to them than any other method of payment, such as bank transfers. Joseph (participant) mentions having stopped using his bank account for money transfers by switching to the usage of M-Pesa services. He argues that mobile money services are conviniently located compared to other financial institutions. "There are many groceries for mobile money services, you just turn around and get a service, rather than taking a bus going to a bank, and take time to get service as you have to queue" (Joseph, participant). As with other alternative sources of financial services, mobile money services are considered to be easily accessible. To register for a mobile money account does not require the applicant to go through many procedures as with other conventional financial services. The only documentation required is some type of identification from trusted sources; there is no need for an opening balance, no need to maintain a certain balance, charges are only incurred upon withdrawal and there are no maintenance fees.

The interesting point is that mobile money services have expanded to cater for almost the full package of financial services. More services have been introduced. The recently-introduced services include savings, credit and insurance services. Among these are M-Power services by Vodacom (savings and credit services) and Wekeza (Tigo pesa savings services). Participants have reported they not only benefit from mobile money services through payment facilities, but they use mobile money services for saving for emergencies. Debo (participant) reports using M-Pesa mobile money services to save for emergencies. Additionally, participants consider the use of mobile money services as a secure place for their money. Josh (participant) states that "I do keep my money in Tigo Pesa".

Despite the fact that the financial sector in Tanzania has, to some extent, improved and that the introduction of mobile money services is thought to increase financial inclusion, the use of home facilities, such as pots and keeping money under the pillow, are still pronounced. Participants have reported they keep their money in their homes. They not only keep money that would be required immediately to meet outstanding obligations, but they also make their savings for deferred purchases at home using traditional tools. See, for example, the following statements. Mumi (participant) "I keep (my money) myself at home in the pot", "I save by keeping in the pot (kibubu)" (Wendy, participant). Although, economically, having some money at home for meeting any outstanding obligations exists in most households, saving at home is considered to be the most primitive way. This method is the one most affected by various risks (risk of theft, risk of fire, and other risks) and can lead to temptations for unnecessary spending unlike other alternative sources mentioned. Although there could be households who manage to keep large savings at home, because of the associated risks mentioned above, it is argued that the possibility of saving at home with a view to accumulating money for investment is very small. Evidence from financial diaries (see chapter 6) indicates saving at home by households is for smaller amounts. Most of them end up being spent on the purchase of food, other small household appliances and emergencies. Most households who do not use financial services manage to save a certain amount of money for investment through savings groups.

Participants indicated depending on family members, relatives and friends for meeting the demand for credit. For instance, Nico (participant) stated that "…in case I face financial need I borrow from friends, I repay back when I get money". Borrowing money from friends is considered to be cheap and easy, but it may not support establishment and/or expansion of productive investments. In most cases, it could work for household consumer needs.

Merry-go-around (in Swahili- Mchezo) is among the traditional methods used by individuals and households as a financial strategy. This is also known as a Self Help Group. Participants mentioned that this method is used as a financial strategy for meeting various household financial needs. See, for example,the following response to the question asking about alternative sources of financial services, “I engage in saving by merry-go-round (mchezo)” (Wendy, participant). This is among the most widely-used financial strategies by individuals and households. The method involves a group of people who agree each to give a certain amount of money on a specific day or date to a member of the group in a rotation manner. The circulation stops, or starts afresh once all members have had their turn. It is a kind of saving; it does not give any extra money to the member of the group other than receiving all his/her money s/he has contributed. The organisation of the group and amount agreed depends on the income of members. According to the operation of the merry-go-round, one would think engaging in such group does not make any difference to what an individual or household could have saved at home. However, the significance of this relates to stimulating individuals/household to engage in saving. As is explained in behavioural finance theory (Thaler and Shefrin, 1981; Shefrin and Thaler, 1988) and else where in this thesis, the act of saving requires self-control. On the other hand, self-control is not easy. Households may plan to save today for the future, yet the current demand for consumption would not cease just because there are savings for future consumption. Relating to participants’ engagement in a merry-go round, it instills commitment as there is agreement with other people, therefore it makes members feel saving is an obligation. Though it is a merry-go-round, in reality most people engage in such arrangements with their own goals. The goals include, for example, deferred purchase, business expansion, supporting children’s education, investment in assets and payment of credit. For instance, Aggy (participant) engages in a merry-go-round to save and accumulate money for future payment of her house rent. This is consistent with the findings presented in chapter 6 about households using self-help groups as a financial saving strategy.

## 7.7 Summary

This chapter explored beliefs held by households about the use of financial services. While there is no literature that has examined the households’ beliefs regarding the use of financial services in Tanzania, by using qualitative research methods the study records varied household beliefs towards the use of financial services. In brief, it is discovered from household participants that, despite their non-use of financial services, they positively perceive financial services in the aspects of security, saving facilities, financing, money management and the role of financial services for improving economic wellbeing. Their beliefs, on the other hand, support the previous discussion (chapter 6) related to varied financial experiences practiced by households, and insufficient financial strategies used. Conversely, negative perceptions about financial services relate to such aspects as cost of using financial services, problems related to accessing financial services and deficiency in security of funds with financial institutions. In terms of social influence, participants indicated social pressure playing a role in influencing their decision to use, or not to use, financial services. The source of influence of social pressure is observed to come from family, friends, neighbours and social groups. The perceived difficulties of using financial services are connected with the characteristics of financial services, households' low income, spending behaviour, lack of financial knowledge and simply lack of interest in using financial services. The identified household beliefs about the use of financial service supports the theory of planned behaviour that people hold certain beliefs about an object/act which are crucial for the formation of behaviour towards such the object/act. Additionally, they support the suggestion by Ajzen(1991) that beliefs should be elicited for establishment of relevant behaviour to be studied. Accordingly, The findings in this chapter supported the establishment of behavioural factors  as is pointed out below and discussed in the next chapter.

In order to complement the current qualitative findings that have identified households' beliefs towards the use of financial services, the next chapter quantitatively examines the effects of households' behavioural factors on the intention and use of financial services. The findings in the current chapter informed the construction of necessary variables for investigating behavioural influence for the use of financial services in chapter 8. The construction of variables, and findings about behavioural effects for the use of financial services, are discussed in the next chapter (i.e., Chapter 8)

# CHAPTER 8 : THE EFFECTS OF BEHAVIOURAL FACTORS ON INTENTION AND USE OF FINANCIAL SERVICES

## 8.1 Introduction

This chapter presents the findings from data analysis examining the effects of behavioural factors on the use of financial services related to the third research question of the thesis. This followed the findings regarding household beliefs about financial services presented in chapter 7. As explained earlier the qualitative findings presented in chapter 7, not only accomplish the stated research objective, but also they provide important information for carrying out the quantitative analysis about the role of behavioural factors for the use of financial services. The construction of behavioral variables in section 8.3 of this chapter was informed by the previous chapter. Following theoretical and conceptual developments discussed in chapter 3, five hypotheses are established based on the theory of planned behaviour (TPB). In brief, it is conceptualized that attitudes towards financial services, subjective norms and perceived control influence the intention to use financial services. Subsequently, intention to use financial services and perceived behavioural control influence the actual use of financial services.

As elucidated in chapter 5 section 5.3.3 Structural Equation Modelling technique (SEM) was used to test the established hypotheses. Two step structural equation modelling was followed. In the first step the measurement model was assessed by confirmatory factor analysis (see section 8.5). In this step, behavioural constructs were tested in terms of their validity, reliability and viability for modelling. However, prior to assessment of the measurement model variables were constructed. The construction of variables is presented in section 8.2, and the assessment of quality of data is demonstrated in section 8.3. The confirmatory factor analysis proved three behavioural factors to be relevant for the study. The three behavioural factors include attitudes towards financial services, subjective norms and perceived behavioural control. Section 8.7, discusses the second step which estimate the structural model following the established hypotheses. The results and discussion of the evaluated structural model for the role of behavioural factors in the use of financial services are presented in section 8.8. Section 8.9 provides a summary of the chapter.

## 8.2 Variable Constructions and Measurement

Measurement of variables is a critical point in any empirical research. It offers a building block for analysis and inferences. Weisburd and Britt (2007) argue that statistically reliable research findings depend on the appropriateness of measures. Unlike other measurable variables, such as age, income and others; measuring behavioural aspects is not straightforward. It depends on the point of view of the person being assessed and/or the assessor. It is this subjectivity that renders measuring behavioural factors complex, and raises concerns on reliability (Razavi, 2001). Despite the complexity of measuring behaviour, it is possible to define and measure it, as it is based on facts (Skinner, 2014). The measurement and identification of behaviour can be based on observation of, and response to, several statements about behaviour (Skinner, 2014). Therefore, self-reported behavioural constructs are assigned measurable values to portray their quantifiable reality. According to Weisburd and Britt (2007), measurement allows examining and investigating the reality of the world. Binary values are assigned to measure response to the indicators of attitude towards financial services, subjective norms, perceived behavioural control, intention to use financial services and the choice to use financial services.

In developing the theory of reasoned action and subsequent theory of planned behaviour, Fishbein and Ajzen (1975) propose the use of the Likert scale and bipolar scale to measure behaviour (attitudes, subjective norms and perceived behavioural control). They argue that the evaluative dimension of the behavioural factors on the dichotomous scale may not always be a perfect indicator of a person's opinion. On the other hand, the body of literature does not present a consensus on the best measurement scale for behavioural factors. Roberts (1997) argues that Thurstone scores offer better measures than the Likert scale. Meanwhile Award et al, (2015) indicate that dichotomous measures offer higher reliability in statistical analysis and results than the Likert scale and other measures. Additionally, there is evidence that Likert scaling of data and dichotomous data yield no significant difference. Mill and Law (2004) conducted an inter rater reliability study between dichotomous scaled and Likert scaled data. They find no significant difference between the two measurement scales of behavioural factors. It is for these empirical evidences of the reliability of dichotomous scaling that the current study maintains the use of binary values for behavioural variables.

Therefore, the estimation of the model is based on three exogenous latent variables; namely, attitude towards financial services, subjective norms and perceived behavioural control. There are two measures of dependent variables; intention to use financial services measured by self-reported statements related to demand for financial education on how to open bank account, and actual use of financial services, measured by holding a savinga account in a bank. The discussion about variables and their construction is presented in the next section.

### 8.2.1 Dependent Variables

This study attempts to highlight the effects of household behavioural factors in the use of financial services. Building on the theory of planned behaviour (see chapter 3 for discussion) the use of financial services is influenced by the intention to use financial services. On the other hand, the intention to use financial services is the result of behavioural factors. Therefore, the understanding of the effects of household characteristics in the usage of financial services considers the operation of the mediator variable the intention and the dependent variable, actual use of financial services. The discussion about construction of intention to use financial services, and the use of financial services variables, are in the following section.

*Intention* is presumed to embody motivation for performing behaviour. It indicates the willingness of individuals and households to perform the behaviour. Rivis and Sheeran (2003, page 218) summarise the concept of intention referring to “person’s motivation to act in a particular manner and indicate how hard the person is willing to try and how much time and effort he or she is willing to devote in order to perform behaviour”. Translating this to the question of demand for financial services, the intention to use financial services can be indicated by individuals’ and household’s motivation and efforts exerted towards the use of financial services. In this study, the intention to use financial services is measured by the desire to acquire knowledge *about how to open a* *bank account*, and stated desire to own a bank account. Each measure takes the value of 1 if one shows intention, otherwise it is 0. The choice of variables is supported by the literature in several ways. First, Armitage and Conner (2001) explain desires to be among the measures of intention. They explain that other measures of intention include self-prediction and behavioural intention. The relevance of using desire for financial education relates to the fact that the use of financial services requires financial knowledge to make informed decisions. That means a person uses financial services after understanding what financial services are, how they operate and what their benefits are. Secondly, there is empirical evidence about the role of demand for financial knowledge leading to the use of financial services. See, for example, the survey experiment by Cole et al., (2011) which indicates that a financial education programme facilitated those with no/low financial knowledge to use financial services. The empirical findings of Annim et al., (2013) identify that desires and aspirations are important in facilitating access to financial services. Thirdly, the findings related to household beliefs in the current study indicate that financial knowledge is an important initial stage of using financial services (see chapter 7). As a result, motivation and pursuit of financial knowledge about financial services indicate the willingness and efforts being made to use financial services.

One could argue that the measurements of intention used in this study are long-term, in that in principle they measure desires rather than specific intention. This is considered when one desires to acquire knowledge about financial services. Since having knowledge is a pre-requisite for usage, this implies that such variables signify that households at the present time do not use such services. Similarly, the way that the stated intention to use financial services *(…would you like to have your own bank account* extracted from FinScope data 2009) is framed, implies that in most cases it will be associated with non-usage. It is, therefore, to be expected that the effect of the 'intention' variables employed in this study would be the opposite of what the theoretical model predicts (i.e. negative effect on actual usage in contemporaneous terms). It would have been really useful if the researcher could have created a proper measure for intentions. However, this was not possible in the present study for several reasons. Firstly, such a latent variable could have been created using CFA based on specific statements that indicate the expectation of the performance of the intended behaviour. This could have been expressed in terms of when, how, where and the target behaviour (Bagozzi et al., 1989; Ajzen, 2002). Unfortunately, after careful re-evaluation of the variables in the dataset, the researcher could not identify appropriate variables to measure such planning. The data consists of either background variables (descriptors of the participants) or opinions, but did not include relevant behavioural intention measures. Due to the nature of the data, the statistical test of intention variables related to opening bank accounts and other indicators of intention to use financial services, in such perspectives as insurance, loans and investments, were found to be insignificant in forming a latent variable (See section 8.3 of this Chapter). On the other hand, the insignificance of other indicators signifies that individuals and households desire basic knowledge for accessing basic accounts prior to accessing other high level financial services.

Nevertheless, the present study raises some interesting questions. While the effect of the constructed 'intentions' variables on actual use is expected to be negative, it could be reasonably expected that in a longitudinal setting, its effect of future usage could be reasonably expected to be positive. Nonetheless the lag of its effect is another important research question that would require detailed investigation. Unfortunately, the FinScope dataset is not a suitable panel allowing one to test this, and different datasets would need to be employed for that purpose.

*Use of financial services (performance of behaviour)* refers to the engagement in the usage of financial services. The use of financial services is concerned with various aspects such as saving, credit, insurance and investment. In the current study, the use of financial services is indicated by holding at least one formal account with a financial institution. It is assumed that, since the majority of the population of Tanzania do not use financial services, holding a bank account is a basic access to financial services. This corresponds to the availability of data for use of financial services where data for other forms of services is scarce. Additionally, the use of accounts is considered to be important for most households in developing countries (Lusardi et al., 2011). Saving services are considered to be the foundation for using financial services. Other services, such as credit, insurance and investments are the next level in the ladder of financial services (see Kostov et al., 2014 for the use of financial services ladder). With such levels, examining the usage of financial services based on the basic entry level is considered crucial for not only understanding the effects of behavioural factors for the general aspect of use, but also the findings offer the foundation for examination of the other financial services in the ladder.

On the other hand, (Ajzen, 1991; Ajzen, 2002) suggest the construction of behavioural constructs to take into consideration important elements of the particular behaviour, such as target, action, context and time (TACT). Clearly, that would mean that use of financial services variables should take into consideration the specific usage of financial services (action), when and how many times it is used (time), where such financial service is obtained (target) and the purpose of use of financial services (context). For the examination of intention to use financial services, a follow-up survey would have been useful for measuring the actual behaviour. However, this was not implemented in this study due to the following reasons. Firstly, the available FinScope survey data set did not accommodate such a follow-up. Secondly, as detailed in the previous paragraph, the current study examines the general perspective of use of financial services. The objective is to underscore if there are any influences of behavioural factors in the usage of financial services in Tanzania, where the access to financial services is still at the bottom level. The consideration of TACT would be crucial in the designing programme for behavioural intervention, which is not within the scope of this study. Despite that, the measure of use of financial services is compatible with other behavioural variables as suggested by (Ajzen, 1991).

### 8.2.2 Independent Variables

*Attitude towards the use of financial services*; in the current study attitude towards financial services refers to perception and beliefs about the use of financial services. Allport (1937) defined attitude as referring to a mental or neural state of readiness organised through experience, exerting a directing or dynamic influence on individuals' response to a situation or an object it is related to. Similarly, Ajzen and Fishbein (1975) refer to attitude as a depiction of the individual's general feeling of like or dislike of an object. Such feeling of like or dislike develops as a result of the person's evaluation of an object (Greenwald et al., 1989). It can be argued that attitude is related to how an individual evaluates the attributes of an object, leading to its favour or disfavour. Since attitude is a mental state related to evaluation of objects, the process of evaluation is associated with several psychological states. Bohner and Wänke (2002, p5) indicate that attitude may involve affective, behavioural and cognitive responses (perceptions and belief). The formation of attitudes towards the use of financial services is connected to the behavioural beliefs about the use of financial services (see the findings on household beliefs in chapter 7). Positive behavioural belief about financial services is connected to a positive attitude towards financial services, and negative belief about financial services is linked to negative attitudes towards them. To put it in other words, *behavioural beliefs* refers to beliefs about the consequences of using financial services. Meanwhile, *attitude towards the use of financial services* refers to the favourable or unfavourable evaluation of the usage of financial services.

The decision about how to measure attitude towards financial services was arrived at by considering household behavioural beliefs about them, (discussed in chapter 7) that play a role in the formation of attitudes. This is related to the suggestion of Ajzen (1991) that the formation of attitudes has to be linked to the behavioural beliefs. The highlighted positive perceptions towards financial services (chapter 7) are used to identify relevant indicators for these attitudes. As indicated, households hold positive perceptions about financial services in such aspects as security, saving facilities, credit facilities, investment facilities and the general wellbeing. Regarding that, 13 items related to such perspectives were selected for indicating attitudes towards financial services. The items refer to statements about attitudes towards financial services, where respondents were required to agree or disagree witho the statement. These items are shown in table 8.1. The design of item statements constituted positive order, with the exception of one item which stated that ‘You would trust another organisation which is not a bank to keep your savings safely’. This statement was reversed in order to match the order of the rest of the items. Thus, agreeing to the statement constituted the value of 1, and disagreeing was 0. Since the attitudinal variables consist of positive order, as stated in chapter 3 section 3.5.1, there is a relationship between attitudes towards financial services and intention to use financial services.

*Subjective norms*; this is another behavioural variable which is concerned with the social influence in the usage of financial services. Social influence is the result of social interactions and the perceived social pressure one assumes from their reference to individuals' (Ajzen, 1991; Ajzen, 2002). Subjective norms relating to financial matters have a significant impact upon financial decisions (Granovetter, 2005; Umuhire, 2013). Subjective norms related to the use of financial services were measured by perceived social pressure held by households regarding the use of financial services. In other words, subjective norms may facilitate households to decide whether or not to engage in the usage of financial services. Similar to the formation of attitudes, the formation of subjective norms is the result of normative belief. In relation to that, it is observed in chapter 7 that households' decision to use financial services is influenced by individuals and social groups.  Therefore, subjective norms are indicated by 4 items related to the extent to which households consider the influence of others in their financial decision making. As shown in table 8.1 the scale used is 1 when a financial decision is influenced by an individual, and 0 otherwise.

*Perceived behavioural Control* of use of financial services refers to the perception of factors that facilitate or inhibit the intention and actual use of financial services. Alternatively, household use of financial services is related to perceptions about ease or difficulty of using financial services. Perception of ease of behaviour denotes individuals' control over behaviour (Ajzen, 1985). Individuals and households intend to perform an action, and would actually engage in action when such action is within their control. The perceived behavioural control in most cases is facilitated by the availability of resources and necessary environment for carrying out behaviour. In this regard, Ajzen (1991) puts emphasis on resources and opportunities available to a person, which to some degree dictates the probability of behavioural accomplishment. This relates to resources such as skills, time, money, knowledge and other related factors. The availability of necessary resources and environment stimulates one's abilities to engage in behaviour. In other words, one would engage in behaviour if such behaviour is within one's abilities. In this regard the intention to use financial services, and their actual use, is facilitated by individual' or housholds'abilities. The perceived behavioural control is indicated by households' knowledge and skills related to the use of financial services. In this study, 11 items relating to the response to the enquiry as to the knowledgeability of households about financial services, and their perception of skills in financially-related matters are used. As demonstrated in table 8.1, having knowledge about financial services and money matters takes the value of 1 otherwise 0. An typical statement includes *"Know about Savings account"* The choice of the aspects of measuring perceived behavioural control in this study is connected to the findings discussed in chapter 7. Eliciting control belief about ease or difficulty of using financial services, financial knowledge is among the important factors perceived by households to facilitate the use of financial services. Ajzen (2002) recommends that belief-related measures offer insights into the cognitive foundation of underlying perceived behavioural control. Additionally, the chosen aspects for perceived behavioural control are consistent with the literature and ongoing initiatives for financial inclusion that put emphasis on financial literacy (Cole et al., 2011; Gale et al., 2012; Bhushan and Medury 2013; Lusardi, 2014). Therefore, it is expected that having knowledge about financial services and skills about money matters is related to intention to use financial services on the one hand, and, on the other hand, influence on the actual use of financial services.

**Table 8.1: Description of Variables and Frequency Distribution of Indicators**

| **Variables and indicators coding** | **Variable indicator** | **Code** | **Frequency (%)** | | **Valid observations =N** |
|---|---|---|---|---|---|
| | | | 1 | 0 | |
| **Perceived Behavioural Control** | | | | | |
| P3 | Know about Savings account | Heard about it and know what it means=1 otherwise=0 | 50 | 50 | 12609 |
| P4 | Know about Current account | Heard about it and know what it means=1 otherwise=0 | 13 | 87 | 12599 |
| P5 | Know about Debit Card | Heard about it and know what it means=1 otherwise=0 | 10 | 90 | 12576 |
| P6 | Know about ATM | Heard about it and know what it means=1 otherwise=0 | 21 | 79 | 12561 |
| P7 | Know about Insurance | Heard about it and know what it means=1 otherwise=0 | 40 | 60 | 12571 |
| P8 | Know about Interest on savings | Heard about it and know what it means=1 | 29 | 71 | 12575 |

| Variables and | Variable indicator | Code | Frequency (%) | | Valid observ |
|---|---|---|---|---|---|
| | | otherwise=0 | | | |
| P9 | Know about Loans | Heard about it and know what it means=1 otherwise=0 | 82 | 18 | 12574 |
| P10 | Know about Interest on loans | Heard about it and know what it means=1 otherwise=0 | 48 | 54 | 12570 |
| PS1 | You have a good idea of what interest/returns you get on the money you save | Agree=1, otherwise=0 | 24 | 76 | 12572 |
| PS2 | You Know quite a bit about money and finance | Agree=1, otherwise=0 | 40 | 60 | 12560 |
| PS3 | You work to a budget | Agree=1, otherwise=0 | 72 | 28 | 12515 |
| **Attitude Towards Financial Services** | | | | | |
| AH1 | You try to save regularly | Agree=1, otherwise=0 | 55 | 45 | 12593 |
| A1 | You hate owing money to anyone | Agree=1, otherwise=0 | 81 | 19 | 12562 |
| A2 | Having an account in a financial institution makes it easier to get credit for your business | Agree=1, otherwise=0 | 54 | 46 | 12582 |
| A3 | You are worried that you won't have enough money for old age | Agree=1, otherwise=0 | 46 | 54 | 12581 |
| A4 | You sometimes take a loan to pay off another loan/credit | Agree=1, otherwise=0 | 10 | 90 | 12544 |
| A5 | You would be embarrassed if you could not pay off your loans | Agree=1, otherwise=0 | 84 | 16 | 12542 |
| A6 | You think it's acceptable to not pay back your loan when it falls due | Agree=1, otherwise=0 | 11 | 81 | 12542 |

| Variabl es and | Variable indicator | Code | Frequency (%) | | Valid observ |
|---|---|---|---|---|---|
| AS1 | You prefer to save where your money is safe, even if the returns are low | Agree=1, otherwise=0 | 61 | 39 | 12576 |
| AS2 | You would trust another organisation which is not a bank, to keep your savings safely | Agree=1, otherwise=0 | 44 | 56 | 12542 |
| AM1 | You are saving for something specific, such as education, an appliance or furniture | Agree=1, otherwise=0 | 52 | 48 | 12569 |
| AM2 | You are willing to give up something in order to save | Agree=1, otherwise=0 | 76 | 24 | 12568 |
| AM3 | You are willing to pay in advance for cover that will assist you in case there is an emergency in the future e.g. insurance | Agree=1, otherwise=0 | 59 | 41 | 12569 |
| AB1 | It's against your beliefs to pay or receive interest | Agree=1, otherwise=0 | 74 | 26 | 12530 |
| **Subjective Norms** | | | | | |
| S1 | Involvement in financial decision | being involved in financial =1 decision, Not involved=0 | 75 | 25 | 12268 |
| S2 | People often ask your advice on financial matters | Agree=1, otherwise=0 | 39 | 61 | 12576 |
| S3 | When you make financial decisions, you like to get advice from family/friends | Agree=1, otherwise=0 | 77 | 24 | 12577 |
| S4 | When it comes to financial matters you prefer to talk directly to a person | Agree=1, otherwise=0 | 74 | 26 | 12548 |
| **Intention to Use Financial Services** | | | | | |
| INT | Demand for financial education-How to open a bank account | Yes=1,No=0 | 79 | 21 | 12642 |

| Variables and | Variable indicator | Code | Frequency (%) | | Valid observ |
|---|---|---|---|---|---|
| **Use of Financial Services** | | | | | |
| BEHAVIOUR | Having bank saving account | Yes=1 No=0 | 8 | 92 | 12527 |
| Control variables | | | | | |
| Gender | Male and Female | Male1,female=0 | 49 | 51 | 12642 |
| Cluster/Regional location | Urban and Rural | Urban=1,Rural=0 | 36 | 64 | 12642 |
| Age | Age, categorical | 16-44 years = 1,<br><br>45-99 years =0 | 73 | 27 | 12642 |
| Education | Formal education | Secondary education and above =1, otherwise=0 | 18.8 | 82.2 | 12642 |

*Source : Author data analysis*

## 8.3 Quality of Data Used

The quality of data was checked to facilitate the achievement of the research objective. Quality checking of data includes checking for adequateness of the sample size, completeness of data and reliability of measurement.

As discussed in the methodology chapter, FinScope Tanzania National Survey (2006 and 2009) data set is used. To ensure accuracy and representativeness of the sample as suggested by Saunders et al., (2009), the survey sample frame is based on National Master Plan estimates by the National Bureau of Statistics. Thus, it takes into consideration changes of population statistics in Tanzania, and thus ensures national representation.

Though it is usual for survey data to be associated with missing values, the collected data is considered to be of an acceptable quality as a result of data screening procedures. The researcher has conducted missing data analysis. In general, the missing values are present in less than 5% of the cases. It has been observed that about 11788 out of 12642 cases are complete at 0% missing values, 614 have less than 5%, 65 cases have greater than 5% but less than 10% and about 115 cases have above 10% missing values. According to Hair et al., (2010), missing data under 10% for individual cases or observation can be ignored if they are completely random, and there is a sufficient number of cases. Kline (2015) suggests acceptable minimum missing values per indicator of 2%-20%. Following that, the data include cases that are sufficient enough for estimating the model to study the effects of behavioural factors in the intention and use of financial services. Additionally, iterative testing was conducted on the data, using a sample with missing values, deleting the cases above 10%, then above 5%, and substitution of mean values to missing values. Both samples offered similar estimates of parameters.

Additionally, the process of examining accuracy and quality of data suggests checking for outliers. Hair et al., (2010) point out that the presence of outliers reduces the capability of the data in offering their representativeness of the population. Since the variables are categorical, the issue of outliers may be considered to be complex to handle. This is due to the fact that the variables are not continuous; they take two values 0 and 1. On the other hand, the concept outliers in most cases would be required for continuous variables (Last and Kandel, 2001). If one could deal with outliers based on frequency, as suggested by Reddy et al., (2013), meaning that unique frequencies are considered as outliers, the reality about the information could be deprived. For instance, the variable use of bank services has 8% for value 1 representing users and 92% for value 0 representing non-users (table 8.1). Thereby, the frequency 8% could be an outlier. However, based on that nature, the outlier cannot be considered to be a problem since they represent the reality of use and non-use of financial services. Therefore, all categorical variables in the present study are considered to be accurate as they appear, and conducting a statistical manipulation may end up depriving their reality.

On the other hand, the concern of handling outliers is given attention in order to meet the properties of statistical techniques that presume normal distribution of data. However, the structural model for the current study is estimated by weighted least squares means and variance adjusted (WLSMV) using *lavaan in R environment for statistical computing*. WLSMV has an ability of taking into account of the nature of categorical variables. Brown (2006) argues the WLSMV is robust and is the best method in estimating categorical data, since it does not assume normal distribution of variables.

## 8.4 Descriptive Statistics and Correlation Analysis

The frequency distribution of the data set and related variables is presented in table 8.1. Demographic characteristics of respondents comprises 51% female and 49% male; 64% of the sample is rural dwellers and 36% urban dwellers. In terms of years of age, 23.4% are aged 16-23, 30.6% are aged 24-33, 22% are aged 34-44 , 12.9% are 45-53, 7.5% are aged 54-63 and 3.6% are aged 64+ (recorded as 16-44 =1 and 45+ =0 in table 8.1 for consistency with other variables). Meanwhile, the majority of respondents lack secondary education, as is observed that only 18.8% of respondents had attained secondary education.

Tetrachoric correlation matrix of indicators is presented in Appendix I. The use of tetrachoric correlation, rather than Pearson correlation, is based on the nature of the measure of the variables, which is dichotomous. The tetrachoric correlation has inherent features that handle dichotomous variables (Ekström, 2011). The other technique that could deal with dichotomous variables is the phi-correlation. However, in the current study, the tetrachoric correlation was preferred as it was easier to accommodate in terms of procedures than phi correlation. The literature indicates that the decision to use either tetrachoric correlation or phi correlation can be a matter of preference (Ekström, 2011). This is because there is evidence that the analysis of association among variables as the result of tetrachoric correlation is the same as the result from phi correlation. The obtained coefficients indicate moderate correlation for the whole set of variables to be studied. The association of variables varies from insignificant coefficient of -0.0007 between A3-*You are worried that you won't have enough money for old age* and PS1-*You have a good idea of what interest/returns you get on the money you save* to as high as 0.824 between (P8-*Know about Interest on savings* and P10-*Know about Interest on loans*). The presence of correlation among variables signifies the potential of variables in forming their respective factors. Davčik (2013) points out that internal consistence correlation among indicators are important because they represent the same underlying theoretical concept. However, higher correlation among predictor variables as to be considered with care. Kennedy (2003) identifies that the presence of a high correlation of predictors may lead to difficulties in detecting which, amongst the variables, are important. He suggests that the correlation between explanatory variables should not exceed (0.8) for a model to be safe from multicollinearity problems. Setting the benchmark to be 0.7 causes the model to be on the side of safety. Thus, variables P4, P5, P6, P7, P8, P9 and P10 were eliminated from the study. On the other hand, dropping of such variables does not cause any discrepancy in the carrying out of the model, specifically in measuring the perceived behavioural control for the use of financial services. Following the assessment of the measurement model and final model discussed in the next section, the retained variables (i.e., PS1, PS2, PS3 and P3) earned sufficient factors scores to make the perceived behavioural control variable.

## 8.5 Assessment of the Measurement Model

The assessment of the measurement model for the effects of behavioural factors on intention and use of financial services was estimated by Confirmatory Factor Analysis (CFA). There are two key points for using CFA in assessing the measurement model. Firstly, CFA is considered to be the best technique for assessing the measurement model where the constructs have already been established in the relevant theory (Byrne, 2001; Jackson. et al., 2009). The current study is carried out based on the well-established behavioural theory, the theory of planned behaviour. The operation and relevance of theory and constructs are discussed in Chapter 3. Secondly, CFA facilitates the assessment of validity and reliability of the latent variables and their respective observable variables specified in the model.

The measurement model can be assessed by using various goodness fit indeces of measuring the good/bad fit of the model. There are two groups of model fit measures. One is the absolute fit indices which indicate how well the prior model fits the sample data (Brown, 2015). These include model fit indices such as Root Mean Squared Error Approximation (RMSEA), chi-squared, Standardised Root Mean Square Residual (SRMR). The second group is the incremental fit indices which compare the targeted model and the more restricted nested baseline model. Examples of incremental indices include Comparative Fit Index measure (CFI) and Turkey's Index fit (TLI) (see Kenny, 2015).

This study concentrates on two goodness fit index measures, namely Comparative Fit Index measure (CFI) and RMSEA. The logic behind the use of the two indices is the nature of the objective of the study. As mentioned in Chapter 3, the effects of behavioural factors measured by attitudes towards financial services, subjective norms and perceived behavioural control on the intention and use of financial services are explored. The theory of planned behaviour, on which the current study is based, is well documented in terms of its applicability and evidence. Secondly, the chosen indices represent the two important categories of measuring goodness fit of model as suggested by Hu and Bentler (1999) with a thorough discussion by Matsunaga (2015). The CFI represents the incremental measure of goodness of fit, meanwhile RMSEA represents absolute measures of goodness of fit. Despite the fact that chi-squared is highly recommended in the literature (Hu and Bentler, 1999; Jackson et al., 2009; Kenny, 2015), it is not employed to assess model fit in the current study. This is due to the sensitivity of the measure when used with a large sized sample (Bentler and Bonett, 1980). Kenny (2015) identifies that chi-squared fit index reasonably fits for sample size of 75 to 200, and not reliable for sample size exceeding 400. Thus, with sample size of 12642 in the current study relying on chi-squared could be misleading.

Hu and Bentler (1999) suggest that goodness of fit of the model using Comparative Fit Index measure and Turkey's Index fit should have the values close to 0.95, and Root Mean Squared Error Approximation should be close to 0.06. Meanwhile, the conventional approach recommends a CFI and TLI value of 0.90 ( Russell, 2002). The analysis in this study follows the conventional criteria whereby CFI $\geq$ 0.90 and RMSEA between 0.06 and 0.08 are employed to assess the goodness of fit of the current study model.

Table 8.2 presents the confirmatory factor analysis results for the initially proposed measurement model, and the final confirmed measurement model. The initial confirmatory factor analysis showed the measurement model to require improvement. The robust statistical test provided CFI= 0.875, and RMSEA= 0.054 significant at 90% confidence interval. Although the obtained RMSEA is within the acceptable fit, the CFI value is below the benchmark, suggesting that the measurement model is inadequate. Schumacker and Lomax (2004) point out that if the theoretical proposed model being estimated is found to inadequately fit the sample data, then the next step would be to modify the proposed model prior to creating the final model. The modification procedures involve specification search for detecting specification errors and evaluation of alternative models. This relates to examination of parameters in such a way that the parameters included in the measurement model should have substantive meaning and are significant.

According to Schumacker and Lomax (2004), factor loadings indicate the association between the factor (latent variable) and the indicator variables. Higher factor loading of an indicator variable indicates close association to its respective factor. The strength of the latent variable depends on the association between the indicator and the factor. The question is, what factor loadings value would be sufficient or acceptable for a better model? There is still no single cut off point for adequate factor loadings. Tabachnick and Fidell (2007) suggest the cutoff point of 0.32, whereas Hair et al., (2006) recommends a cutoff of 0.4. Yong and Pearce (2013) suggest that the choice of the cutoff point should depend on the ease and complexity of the variables being handled and the ease of interpretation. Meanwhile Matsunaga (2015) identify a cutoff point of factor loading at 0.4 to be convention in retaining variables. In the examination of the model, parameters/ observable variables A1, A3, A4, A5, A6 and AB1 were detected to be weak by not meeting the criteria of 0.4 as suggested (Matsunaga, 2015). The respective indicators were eliminated from the model.

**Table 8.2: Measurement Model as a result of Confirmatory Factor Analysis**

| | | | **Initial Model** | | **Improved Model** | |
|---|---|---|---|---|---|---|
| **Constructs** | **Indicators** | **Variable Indicator** | **Factor Loadings** | **Standardised** | **Factor Loadings** | **Standardised** |
| Attitude towards financial services | AH1 | You try to save regularly | 1 | 0.65 | 1 | 0.66 |
| | A1 | You hate owing money to anyone | 0.22 | 0.14 | * | * |
| | A2 | Having an account in a | 1.01 | 0.66 | 1 | 0.66 |

| Constructs | Indicators | Variable Indicator | Initial Model | | Improved Model | |
|---|---|---|---|---|---|---|
| | | | **Factor Loadings** | **Standardised** | **Factor Loadings** | **Standardised** |
| | | financial institution makes it easier to get credit for your business | | | | |
| | A3 | You are worried that you won't have enough money for old age | 0.23 | 0.15 | * | * |
| | A4 | You sometimes take a loan to pay off another loan/credit | 0.32 | 0.21 | * | * |
| | A5 | You would be embarrassed if you could not pay off your loans | 0.28 | 0.18 | * | * |
| | A6 | You think it's acceptable to not pay back your loan when it falls due | 0.05 | 0.03 | * | * |
| | AS1 | You prefer to save where your money is safe, even if the returns are low | 1.07 | 0.698 | 1.07 | 0.7 |
| | AS2 | You would trust another organisation which is | 0.59 | 0.38 | 0.58 | 0.38 |

| Constructs | Indicators | Variable Indicator | Initial Model | | Improved Model | |
|---|---|---|---|---|---|---|
| | | | Factor Loadings | Standardised | Factor Loadings | Standardised |
| | | not a bank, to keep your savings safely | | | | |
| | AM1 | You are saving for something specific, such as education, an appliance or furniture | 1.06 | 0.69 | 1.06 | 0.69 |
| | AM2 | You are willing to give up something in order to save | 1.07 | 0.695 | 1.06 | 0.69 |
| | AM3 | You are willing to pay in advance for cover that will assist you in case there is an emergency in the future e.g. insurance | 0.87 | 0.57 | 0.85 | 0.56 |
| | AB1 | It's against your beliefs to pay or receive interest | 0.04 | 0.02 | * | * |
| Subjective norms | S1 | Involvement in financial decision | 1 | 0.33 | 1 | 0.34 |
| | S2 | People often ask your advice on financial matters | 1.81 | 0.6 | 1.8 | 0.61 |

| Constructs | Indicators | Variable Indicator | Initial Model | | Improved Model | |
|---|---|---|---|---|---|---|
| | | | Factor Loadings | Standardised | Factor Loadings | Standardised |
| | S3 | When you make financial decisions, you like to get advice from family/friends | 1.57 | 0.52 | 1.5 | 0.52 |
| | S4 | When it comes to financial matters you prefer to talk directly to a person | 2.1 | 0.7 | 2.1 | 0.7 |
| Perceived Behavioural Control | PS1 | You have a good idea of what interest/returns you get on the money you save | 1 | 0.74 | 1 | 0.74 |
| | PS2 | You Know quite a bit about money and finance | 0.87 | 0.64 | 0.87 | 0.64 |
| | PS3 | You work to a budget | 0.88 | 0.65 | 0.87 | 0.64 |
| | P3 | Know about Savings account | 0.53 | 0.39 | 0.53 | 0.4 |

* Not applicable, variables excluded in the final model

*Source: data analysis by Author*

The second phase confirmatory factor analysis was carried out excluding the low loadings indicators. This produced a better fit model for our sample data. As shown in Table 8.2, the CFI has improved to 0.91, TLI 0.89 and the RAMSEA 0.06. Since the produced indices are within the acceptable criteria (see Hu and Bentler 1999; Russell, 2002; Brown, 2006) this proves that the chosen data fits our model of study. Despite the fact that TLI of 0.89 is slightly below the acceptable criteria, the strength of the model is further being built by the values of indicators and respective latent variables (Schumacker and Lomax, 2004). All variable indicators are statistically significant at 5% and have positive loadings, making the model safe from a non-positive definite covariance problem. Additionally, all the three latent constructs have been well represented. Each latent construct has three or more indicators with sufficient loadings. There is non-zero covariance between latent variables. The covariance between attitudes towards financial services and subjective norms is 0.193, attitudes towards financial services and perceived behavioural control is 0.429, and perceived behavioural control and subjective norms is 0.203, all these are highly significant. The measurement model was reassessed by adding back the dropped variables one at a time. This was done to ensure sufficiency of the model without leaving potential indicators or including irrelevant indicators. The fit indices appeared to deteriorate by adding back low loadings variables. Thus, all indicators with low factor loading were deemed to be eliminated, making the model sufficient and reliable for study.

**Table 8.3: Goodness of Fit Indices Used**

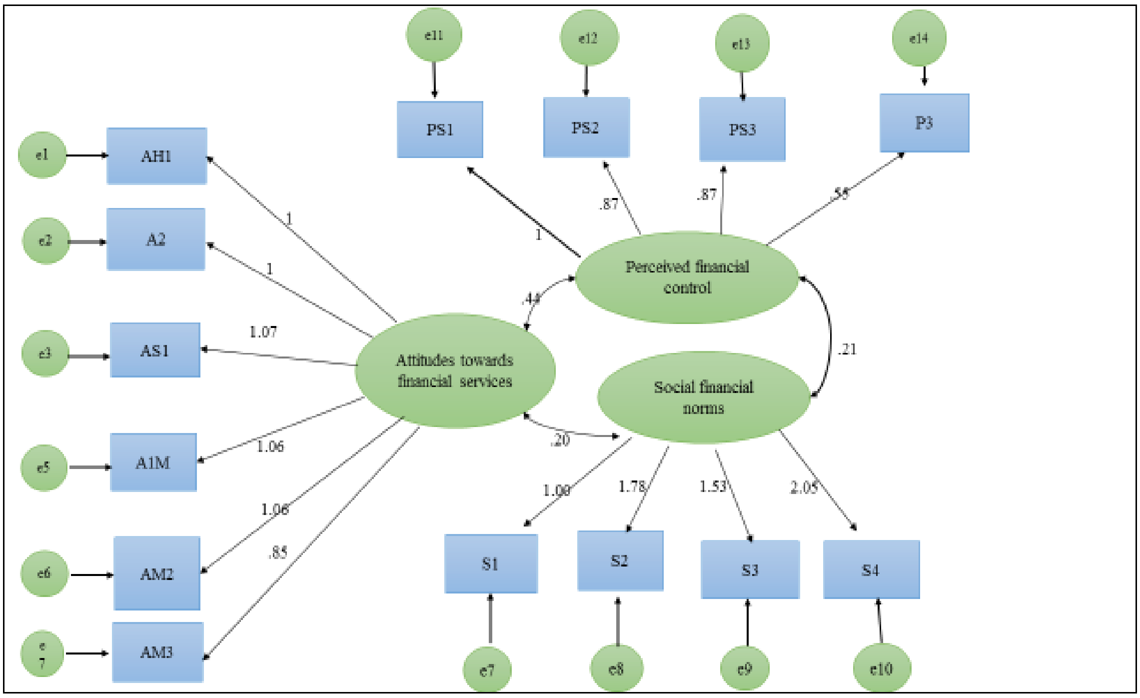
| **Goodness Fit index** | **Initial Measurement Model** | **Improved and proposed Measurement Model** | **Criteria** |
|---|---|---|---|
| Comparative fit index (CFI) | 0.88 | 0.91 | ≥ 0.90 (Russell, 2002; Hu andBentler,1999 |
| Tucker-Lewis index (TLI) | 0.86 | 0.89 | ≥ 0.90 (Russell, 2002; Hu and Bentler,1999) |
| Root mean squared error Approximation (RMSEA) | 0.54 | 0.06 | between 0.05 and 0.08 (Hu and Bentler,1999) |
| At 90% Confidence Interval (P<0.05 | 0.053* | 0.062* | between 0.05 and 0.08 |

*significant P=0.000

*Source: data analysis by Author*

Figure 8.1 presents the final measurement model for examining the effects of behavioural factors for intention to use financial services and actual use of financial services.  The three factor variables; attitudes towards financial services, subjective norms and perceived behavioural control have been confirmed to fit for studying the effects of behavioural factors in the use of financial services. Attitudes towards financial services have been loaded by seven related observable variables. In general, the observables variables that are fit for attitude towards financial services refer to saving attitude (AH1, AM2, AM3), saving motivations (AM1), perception about financial services and providers of financial services (A2, AM2, AS1). Subjective norms have four related observable variables (S1, S2, S3, and S4). They indicate the influence of other people in financial decision making. The perceived behavioural control is indicated by knowledge about financial services (P3), general knowledge related to money matters (PS1 andPS2) and financial skills (PS3). The description of the observable variables is shown in table 6.1.

**Figure 8.1:  Final Measurement Model for Intention and Use of Financial Services**




*Author's data analysis*

## 8.6 Validity and Reliability of Constructs

The examination of reliability and validity of the final measurement model was carried out prior to estimation of the structural equation model. The validity of the measurement model was examined by convergence validity, construct validity and discriminant validity. Convergence validity is considered successful when all items of the measurement model are statically significant (Awang, 2014). As indicated in table 8.2 all items for the improved and the final measurement model are statistically significant. The constructs are valid, as indicated by goodness of fit of the measurement model, CFI=0.91 and RMSEA = 0.06 significant at 90 %( 0.06 0.06), see table 8.3. Additionally, the constructs are free from repetitive items. This is indicated by correlation among the constructs being below .85. Correlation among the constructs ranges from 0.128 to 0.551. Thus, attitude towards financial services is discriminated from subjective norms as well as perceived behavioural control. The measurement model and the respective constructs are considered to be reliable. The Crobach's alpha test revealed 0.7 score of attitude towards financial services which is within the benchmark (Nunnally, 1978). However, perceived behavioural control had a lower alpha score of 0.5 and subjective norms 0.5. There are several issues that affect Cronbach alpha, causing it to be lower. They include correlation among variables and number of items (Tavakol and Dennick, 2011). Higher correlation increases alpha, and lower correlation decreases alpha. Tetrachoric correlation was performed to examine correlation between observable variables for each behavioural construct. Items for both subjective norms and perceived behavioural control are positively and significantly correlated. Correlation between items for subjective norms produced coefficients ranging between 0.3 and 0.4. Perceived behavioural control indicators have correlations between 0.2 and 0.6, which is considered to be sufficient. The lower score of alpha for the aforementioned constructs may be related to the lower number of items. Considering the nature of the study and the use of available national secondary data, addition of items to the constructs is limited. The addition of variables to constructs from available data does not fit the established model. However, following the prerequisites of structural equation modelling, the constructs and their respective observable indicators are sufficient for estimating a structural model. The constructs have been indicated by more than three observable variables, and all are significant as recommended by Kline (2015). Therefore, the constructs used for the model are valid and reliable.

## 8.7 Structural Model Evaluation

The structural model of the study was carried out in three models representing the theoretical perspectives and hypothesis of the study discussed in chapter 3. The final measurement was tested and evaluated in the structural model. The three models are described below;

**Model 1**: This represented the perspectives of TRA and TPB, whereby the intention to use financial services is influenced by the attitudes towards financial services, subjective norms relating to use of financial services and perceived behavioural control for the use of financial services. In this model, the antecedents of intention to use financial services are considered to be associated, and individually they influence the intention to use financial services. From figure 8.2, paths are indicated by H1 to H6. Model 1 includes H1, H2 and H3.

*Attitude ~~ Subjective norms*

*Subjective norms ~~ Perceived behavioural control*

*Perceived Behavioural Control ~~ Attitudes*

*Intention ~Attitude + Subjective norms + Perceived Behavioural control …. (Model 1)*

**Model 2**: This model extends model 1, estimating H4 and H5 shown in figure 8.2. The actual use of financial services is influenced by the intention to use financial services and financial perceived behavioural control. The strength of the intention to use financial services is a result of the role played by attitudes towards financial services, subjective norms and perceived behavioural control. In other words, intention is a mediator of attitudes towards the use of financial services, subjective norms and perceived behavioural control in influencing the actual use of financial services. Model 1 is nested on model 2. Thus, intention influences actual use of financial services as the effect of its antecedents, and the actual behaviour is all together influenced by intention to use financial services and financial perceived behavioural control.

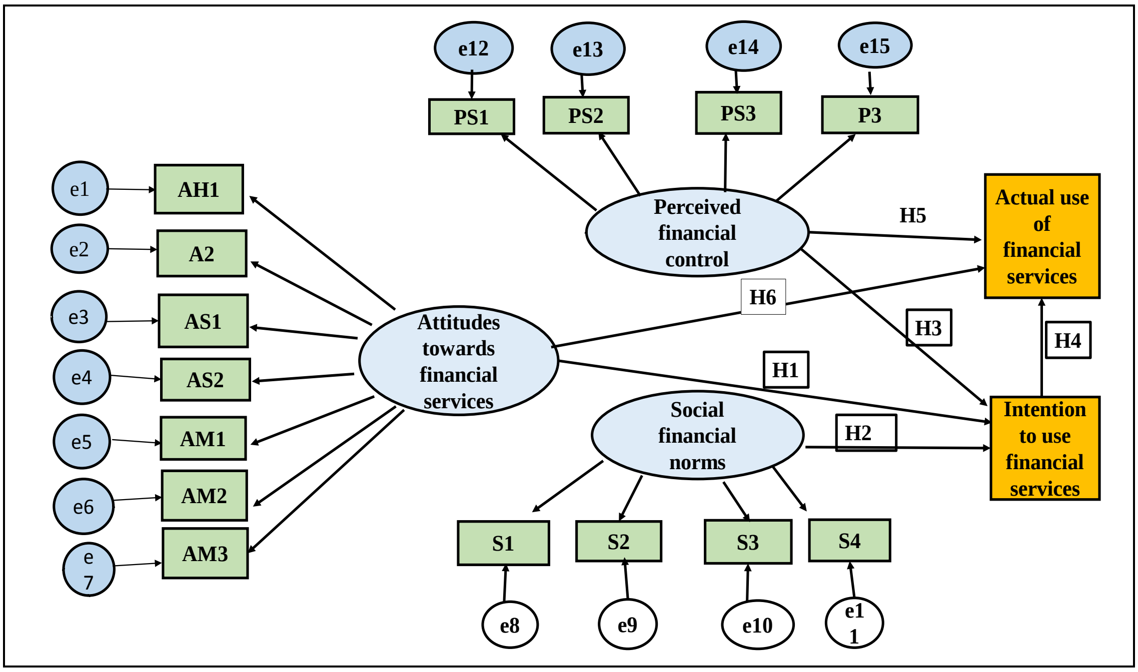
*Actual use of financial services ~ Intention to use financial services (from model 1)*

*Actual use of financial services ~ Intention (from model 1) + Perceived behavioural control*

**Model 3**: In this model, the TPB is extended by estimating the direct effects of attitude towards services on the actual behaviour of use of financial service,es in addition to intention and perceived behavioural control. In respect to this,  H6 as shown in figure 8.2 is assessed. The fit of model 3 is compared to model 2. The comparison between model 2 and model 3 is intended to spotlight the role of attitudes towards financial services compared to intention to use financial services. The importance of this is to underscore the direct influence of attitudes on the use of financial services.

*Actual use of financial services ~ Attitudes towards financial services + Perceived Behavioural Control + Intention to use financial services*

**Figure 8.2: Structural Model for the Intention  and Use of Financial Services**




*Author's data analysis*

Model 1 was first run for H1, H2 and H3. This model was found to be reasonable. This is confirmed by CFI =0.91, and RMSEA=0.06 with 90% confidence interval (0.060 0.063) being within the acceptable criteria. There is significant positive association between attitudes towards financial services, subjective norms and perceived behavioural control. Similarly, subjective norms are positively associated with perceived behavioural control for the use of financial services. Path analysis indicates a positive influence of measured attitudes towards financial services for intention to use financial services. This is indicated by coefficient beta 1.406, and is significant at the p-value=0.000. Subjective norms positively influence intention to use financial services, indicated by path coefficient=0.631, and is significant at 0.0271. Meanwhile, perceived behavioural control appears to negatively affect the intention to use financial services with coefficient beta -1.551, and is significant at the less than 5% probability value. On the other hand, the negative effects of perceived behavioural control on intention to use financial services can be viewed to be consistent, following the measure of perceived behavioural control and intention to use financial services (see previous discussion, specifically subsection 8.2.2). It is clear that individuals or households who are knowledgeable about financial services and hold financial skills would be less likely to demand knowledge about how to open an account. However, further examination of the effects of attitudes, subjective norms and perceived behavioural control on intention to use financial services, measured by the stated intention 'would like to own bank account' (elicited in 2009 FinScope data set, not available in FinScope data set 2006) was carried out. Similar results to the previous intention measure (i.e. desire to know how to open an account) except the influence of subjective norms. Attitudes towards financial services is positively and significantly related to the intention to use financial services, as indicated by path coefficient = 17.947. Perceived behavioural control negatively and significantly affects the intention to use financial services by path coefficient -9.752, but positively influences the usage of financial services at coefficient beta 0.916. Meanwhile, the intention to use financial services has a negative influence on the usage of financial services. In other words, the results are robust for each measure of intention to the usage of financial services (see Appendix F). However, similar findings about effects of perceived behavioural control on stated intention (would like to open bank account) are observed. This, on the other hand, confirms the robustness of the findings. These results are interpreted and discussed in subsections 8.8.2 and 8.8.4.

The second model for H4 and H5 was carried out after the first model. The estimates of the effects of intention to use financial services on the actual behaviour of using financial services, as the result of the influence of antecedents of intention, were reasonable fit with CFI=0.90, RMSEA=0.06 significant at 90% confidence interval of (0.06 0.06). On one hand, the findings confirm the indirect effects of attitudes towards financial services, subjective norms and perceived behavioural control towards the use of financial services. This means that intention to use financial services mediates between behavioural control factors and actual behaviour. On the other hand, intention, together with perceived behavioural control, influences the usage of financial services. Intention appears to have a negative influence on the use financial services, whereas perceived behavioural control positively affects their use. Both exogenous variables are statistically significant. Path coefficients indicate that intention to use financial services decreases the probability of using financial services by -0.361, meanwhile perceived behavioural control increases the probability of using financial services by 0.991. The discussion about these findings is presented in subsection 8.8.2.

In the third model, the direct effect of attitudes towards the use of financial services is introduced (H6). As elucidated in chapter 3, attitude may influence behaviour directly, without being mediated by intention (Bagozzi et al., 1989). Additionally, the influence of intention to use financial services is tested without taking into account its antecedents. Thus, the model for the actual behaviour in this scenario is estimated by attitudes towards financial services, intention and perceived behavioural control of use of financial services. Similar to the previous models, this model is adequate by CFI=0.91, RMSEA=0.06 at 90% confidence interval (0.06 0.06) and is significant at 0.000 p-value. Attitudes towards financial services appear to negatively influence the actual use of financial services by -1.602 and the influence is statistically significant. The sign of influence of intention to use financial services appears to be similar to the findings of the previous model (model 2 of the current study). This indicates that, regardless of the role of the antecedents of intention, intention may negatively affect the use financial services. However, the observed coefficient beta indicates the magnitude of negative influence of intention on the usage of financial services is higher when its antecedents are not taken into account. This is indicated by coefficient beta -0.985 when its antecedents are not taken into account, otherwise it is -0.361. Meanwhile, perceived behavioural control is found to positively and strongly influence the actual use of financial services with path coefficient 2.594.

An additional examination was conducted to examine the relationship between behaviour related to the use of mobile money services and use of financial services. This is built on the expanding interest in application of technology and the increasing use of mobile money services for increasing the use of financial services in developing countries (Prior and Santomá, 2010; Demirgüç-Kunt and Klapper, 2013; Demirgüç-Kunt et al., 2105; Economides and Jeziorski, 2015). Many developing countries are interested in the usage of mobile financial services for increasing financial inclusion (for example Tanzania and Kenya). Moreover, there is an increase in financial inclusion worldwide, associated with the increase in the use of mobile money services. For instance, Demirgüç-Kunt et al., (2015) report an increase in the use of financial services worldwide from 51% in 2011 to 62% in 2014 by adults holding an account at a bank and other types of financial institution, including mobile money services. Similarly, the findings of qualitative analysis presented in Chapter 7 indicate that households report using mobile money services as an alternative source of financial services. However, it is not yet known whether behavioural factors related to mobile money affect for the usage of financial services. Ivatury and Pickens (2006) suggest that the use of mobile phones as a link for access to financial services is related to the perception and belief of people. In this regard, an attempt to examine the effects of household behavioural factors on intention to use mobile money services, and subsequent effects on the actual use of financial services, was made. The significance of this relates to underscoring the effects of behavioural factors on the intention to use mobile services, as well as the effects of intention to use mobile money services n actual use of financial services. The question is, if behavioural factors affect the usage of financial services, measured by usage of saving services, what can be said for mobile money services as a tool for increasing usage of financial services? This is carried out on the available data of 2009. The intention to use mobile money services is measured by intention to use mobile phones for sending and receiving money. The potential of this measure relates to the wide usage of mobile money services for payment (see for example reports by FSDT, 2013; Demirgüç-Kunt et al., 2015; Economides and Jeziorski, 2015)

The regression results from the structural equation model for intention to use mobile money services and the actual use of financial services (BEHAVIOUR) are presented in table 8.4. It is indicated that subjective norms positively and significantly affect the intention to use mobile money services, with coefficient beta .399. The perceived behavioural control variable has a significant negative influence on individuals' and households' intention to use mobile money services. Meanwhile, attitudes towards financial services appear to have no significant effect. Subsequently, the examination of the role of household intention to use mobile money services on the actual use of financial services from banking institutions indicate that an intention to use mobile money services significantly affects the actual use of financial services (BEHAVIOUR). This is indicated by negative coefficient beta 0.146 significant at 5% probability value. Similar to the findings on the influence of intention to use financial services on their actual use (figure 8.2), it is observed that intention to use mobile money services negatively affects the actual use of financial services. The discussion and interpretation of results are presented in the next section.

**Table 8.4 : Behavioural Factors and the Intention to Use Mobile Money Services**

| **Independent Variables** | **Intention-measured by aspiration to acquire knowledge on how to open a bank account (years 2006 and 2009)** | **Intention to use mobile money services for sending and receiving money (year 2009)** | **BEHAVIOUR-Use of financial services (year 2009)** |
|---|---|---|---|
| Attitude towards financial services | 1.406* | 0.346 | n/a |
| Subjective norms | 0.631* | 0.399* | n/a |
| Perceived behavioural control | -1.551* | -0.329* | 0.922* |
| Intention to use mobile money sevices | n/a | n/a | -0.146* |

*Significant at $p < 0.05$

*Source: data analysis by Author*

## 8.8 Resulting Discussion and Interpretation

This section discusses the findings of the developed hypothesis for examining the influence of behavioural factors on the intention, as well as the actual use of them. The summary of the findings related to the developed hypothesis is presented in table 8.5 below.

**Table 8.5: Summary of the findings; the Intention and Use of Financial Services**

| | Hypothesis | Existence of Influence/Association | Path Coefficients | Refer to |
|---|---|---|---|---|
| **H1** | There is a relationship between households' attitude towards financial services and intention to use financial services. | Significant positive influence | 1.406 | Page 217 |
| **H2** | There is a relationship between Household subjective norms and intention to use financial services measured by desire to acquire financial education. | Significant positive influence | 0.631 | Page 217 |
| **H3** | There is a relationship between perceived behavioural control and intention to use financial services | Significant negative influence | -1.551 | Page 217 |
| **H4** | Intention to use financial services as a result of behavioural control factors and perceived behavioural control have influence on the actual use of financial services | Significant negative influence | -0.361 | Page 218 |
| **H5** | Perceived behavioural control has influence on the actual use of financial services | Significant positive influence | 0.991 | Pages 218 |
| **H6** | There is a direct relationship between attitudes towards financial services and the actual use of financial services | Significant negative influence | -1.603 | Pages 218 and 219 |

All are significant at $p < 0.05$, H= additional testing of established hypothesis

### 8.8.1 Attitudes towards Financial Services and Intention to Use Financial Services

In the present study, attitude towards financial services was posited to influence intention to use financial services. The hypothesis is supported, as attitudes towards financial services positively and significantly influence the intention to use financial services. This is consistent with the theory of planned behaviour and the original theory of reasoned action (see Ajzen, 1991, Fishbein and Ajzen, 1975). In other words, evaluation of financial services may facilitate the intention to use them. Individuals' and households' attitudes towards financial services influence their intention to use financial services. These findings are also similar to documented empirical evidences. For instance, Koropp et al., (2014) documents family attitudes towards financial instruments affect intention to use financial instruments. However, it should be noted that evaluation of financial services by individuals and households may not always be positive. It depends on the perception regarding financial services (Ajzen, 1991). More favourable evaluation of financial services, as well as financial services providers, may trigger a positive intention to use financial services, and vice versa. The examination of the indicators of attitudes towards financial services indicates different levels of their effects in explaining attitudes towards financial services. The item related to the attitude towards security and safety of funds has earned the highest variance in explaining the attitudes towards financial services. The response to the statement: "*You prefer to save where your money is safe, even if the returns are low*" indicates about 49% contribution to the overall intention. Thus, attitudes related to security issues appear to be crucial for the intention to use financial services. Individuals and households in Tanzania are more concerned about safety of their funds than earnings. Meanwhile, trust in organisations other than formal financial providers has the lowest variance input of 14%, amongst the indicators. Lack of trust in formal financial services appears to be low in contributing to the attitude in comparison to security matters and other indicators, including saving behaviour (*You try to save regularly),* motivation for saving "*You are saving for something specific, such as education, an appliance or furniture*". In other words, lack of intention to use financial services is the result of attitudes related to trust in formal financial providers excluding the attitudes related to security and individual motivation for use of financial services. This is consistent with the findings presented in chapter 7 that households positively perceive financial services to be safe.

### 8.8.2 Perceived Behavioural Control and Intention to Use Financial Services

The findings of this study confirm the influence of perceived behavioural control on the intention to use financial services. Perceived behavioural control is negatively related to intention to use financial services. These findings are considered to be consistent with the theory in one perspective. Regardless of the magnitude of relationship, they indicate a significant relationship between perceived behavioural control and intention to use financial services, as postulated in the theory of planned behaviour (Ajzen, 1991; Ajzen and Madden, 1986). However, on the other hand, the magnitude of the relationship seems to be contrary to the theory and some of the empirical findings. According to TPB, perceived behavioural control relates to the availability of necessary resources for stimulating behavioural intention (Ajzen, 2002). In the current study, perceived behavioural control, indicated by having financial knowledge and financial skills, was expected to increase the probability of intention to use financial services. Knowledge and skills about financial services give opportunity to an individual to make an informed decision to use financial services. As indicated in chapter 7, households perceive financial education to be among the important aspects of facilitating their engagement in financial services. Similarly, Cole et al., (2011) point out that being familiar with financial products influences the demand for such products. The related reasons for negative influence of perceived behavioural control on intention to use financial are discussed below.

The negative effect of perceived behavioural control on intention relates to the lack of a necessary environment facilitating intention to use financial services. If perceived behavioural control would enhance the intention to use financial services, as per TPB, insufficient perceived behavioural control may diminish the intention to use financial services. This can be considered to be relevant in Tanzania, where surveys report low knowledge by the majority of the adult population. Pooled data from FinScope (2006 and 2009) shows half of the Tanzanian population do not know about savings, and 71% of the population do not know about interest on savings. Moreover, knowledge about ATMs is about 21% and knowledge about current accounts is 10%. With such a background, one may argue that such lack of knowledge facilitates lack of motivation to use financial services. However, these findings cannot be conclusive. Following the limited indicators of perceived behavioural control variables where other information, such as affordability of financial services, were not included in availability of data, further examination is suggested to find out what necessary environment and resources would influence intention. Additionally, it would be very important to identify specific environments for specific intentions. For instance, there could be consideration of a specific environment for individual financial services. Some aspects of resources for saving services could be different from resources for accessing credit facilities. For example, accessing saving services would not require collateral whereas credit facilities, in most cases, require collateral.

These findings, on the other hand, are similar to the findings of (Koropp et al, 2014). They investigated the effects of behavioural factors on family financial decisions for the purchase of financial instruments. Their findings indicated that perceived behavioural control negatively affects the intention to use external debt and external equity. This highlights that it is not always the case that, where individuals and households have perceived behavioural control, they would intend to perform this behaviour. Cole et al., (2009) conducted experimental research with non-users of financial services, investigating the role of financial education (as a factor among perceived behavioural control) for enhancing usage of financial services. The experiment did not achieve the expected effect on demand for use of financial services. Consequently, even when there are sufficient resources and means for using financial services, for example being financially literate, this may not necessarily render a person to intend to use financial services.

If perceived behavioural control negatively affects the intention to use financial services, what could be the effects of intention on the decision and actual use of them? This question is answered in section 8.8.4, where the effects of perceived behavioural control in the use of financial services, and the influence of intention in the use of financial services, are discussed.

### 8.8.3 Subjective Norms and Intention to Use Financial Services

In this study, the hypothesis that subjective norms are related to intention to use financial services is confirmed. The findings are dependent on the nature of the measure of intention to use financial services. Firstly, the findings signify that subjective norms positively influence the intention to use financial services, measured by a desire to acquire financial knowledge. These indicate that social interactions may influence the intention to use financial services. The findings are consistent with the theory of planned behaviour (Ajzen, 1991) as well as the theory of reasoned action (Fishbein and Ajzen, 1975). Comparing the findings to previous findings in the field of finance, Granovetter (2005) puts emphasis on the relationship between social relations and economic decisions. Johnson (2004) identifies that subjective norms have an influence on the demand for financial services. Following the indicators of subjective norms, it can be argued that individual and household involvement in financial decision making increases the probability of intending to use financial services. Similarly, individuals or households who influence others on financial matters are more likely to intend to use financial services. The observed variable *"People often ask your advice on financial matters"* is significantly related to subjective norms which, in turn, influence the intention to use financial services.

Secondly, it is observed that subjective norms negatively influence the intention to use financial services, measured by a desire to own a bank account. Although it could be viewed that there is contradiction in the findings about subjective norms using different measures of intention used in this study, such findings are consistent with the literature. In this second scenario, for instance, it is indicated in the literature that cultural norms matter for usage of financial services (see Osili and Paulson, 2008; Atkinson, 2006). Probably, the negative influence of subjective norms in Tanzania was a result of the established subjective norms that favour traditional ways of handling finances, compared to the use of formal financial services. For example, 77% of respondents from the extracted data report their desire to get advice from family and friends (see table 8.1). Similarly, in chapter 7, it is indicated that family and social environment influence the decision to use financial services. Furthermore, chapter 6 indicates households' financial strategies are based on social groups.

When making comparisons among the antecedents of the intention to use financial services, subjective norms have been observed to be weak predictors of intention. Meanwhile, the perceived behavioural control appears to be mostly affecting the intention to use financial services. Subjective norms explain the variance of intention to use financial services by 11%, attitudes towards financial services by 43%, meanwhile the perceived behavioural  shows 55%. This is similar to the findings of the meta-analysis conducted by Armitage and Conner (2001) on attitude, subjective norms and intention to perform behaviour. They report subjective norms to be weaker than attitude in predicting intention.

The effects of attitude towards financial services and perceived behavioural control remain significant, even after controlling for demographic characteristics. Controlling variables, such as secondary education and regional location, have been found to negatively and significantly affect the intention to use financial services. This means, being educated to secondary level and living in an urban decreases the intention to use financial services. Age, measured by being young, increases the probability of intending to use financial services. Gender appears to be irrelevant in determining the intention to use financial services as indicated by insignificant results. Thus, to intend to use financial services it does not matter whether you are male or female.

### 8.8.4 Intention, Perceived Behavioural Control and the Use of Financial Services

This study reports the evidence that intention to use financial services as an antecedent of attitude towards financial services, subjective norms and perceived behavioural control, together with perceived behavioural control, affect the decision to use financial services. Both intention to use financial services and perceived behavioural control explain the 33% of the variance of usage of financial services. These findings are consistent with the theory of planned behaviour and similar empirical evidences (Kennedy, 2013; Koropp et al., 2014). However, intention to use financial services is found to negatively affect the use of financial services. Compared to the response from respondents regarding their intention to use financial services (demand for financial education on how to open an account as a proxy in table 8.1) 76% of respondents were positive, which on one hand could be viewed to have a positive influence. Accordingly, Ajzen (1991) points out that intention is a product of positive or negative evaluation of behaviour linked to social influences and availability of resources. This means that, if the intention is a result of positive evaluation of the financial services, assuming control and positive social influence would positively influence the use of financial services, and the reverse may also be true. However, this remains questionable. The findings show mixed results from antecedents of intention to use financial services. As pointed out earlier, attitudes towards financial services and subjective norms have a positive effect. Meanwhile, perceived behavioural control has influence on the intention to use financial services. It is possible that the negative influence of intention towards the use of financial services is connected to the negative effects of perceived behavioural control on intention. The negative intention to use financial services could be a result of the role of behavioural belief, subjective beliefs and control belief. This relates to the findings about household beliefs, presented in chapter 7. Households believe that financial education is among the factors that would facilitate the usage of financial services (see section 7.5.3). Similarly, in chapter 6, it is reported that low/lack of financial knowledge is among the challenges facing households. Thus, the findings that perceived control measured by financial knowledge and skills affects the intention to use financial services highlights lack of such skills facilitates their intention. On one hand, this supports the importance of financial services in facilitating money management skills (Ryhne, 2012). Alternatively, following the measure of intention, households who perceived that they have control for the use of financial services would not desire financial education. Thus, households who use financial services are less likely to desire financial education. This implies that financial education is necessary to non-users of financial services for enhancing intention and usage of financial services.

Additionally, the negative effect of intention to use financial services could be related to the characteristics of products/object not meeting the desired service. Probably, one could intend using financial services, but be barred from their use by providers of financial services offering services that do not conform to the demand of intended users. Anderloni et al., (2008) highlights that financial exclusion arises because of the failure of financial institutions to supply a range of financial products appropriate to the society. For example, the experiences of households observed in chapter 6, where the majority have low incomes and are capable of saving in small amounts in frequent transactions (daily or weekly), suggest that the financial services offered do not offer such facilities. Although it is not suggested that services are offered free, due to associated running costs, the findings in chapter 7 section 7.5 indicate that households negatively perceive financial services in terms of associated costs. Furthermore, the investigation conducted by Kostov et al., (2014) on determinants for choice of basic accounts (Mzansi account in South Africa) suggests the presence of demand for financial services. The basic account is portrayed to be suitable for individuals with a basic understanding of financial terms; individuals with higher financial literacy would require a more advanced financial service than the basic account (Kostov et al., 2014). Alternatively, due to the nature of the measure of intention and the measure of behaviour (see section 8.2.1 for details), it could be argued that desire to acquire financial knowledge would be more prominent among non-users of financial services than existing users. This implies that the initiatives of improving financial literacy should take into consideration who needs financial education and what financial education these people need.

The effects of perceived behavioural control for the use of financial services support the hypothesis of the current study. This is consistent with the theory of planned behaviour (Ajzen, 1991) which suggests that performance of behaviour is effective when a person perceives they have control over behaviour. As discussed in chapter 3, perceived behavioural control is enabled by the availability of resources required to perform behaviour. This is relevant to the findings in the field of finance, whereby financial inclusion is considered to be enhanced by increasing financial education and other necessary resources (Braunstein and Welch, 2002; Gale and Levine, 2010; Gale et al., 2012). Hence, the availability of necessary resourses for the use of financial services stimulates individuals' behavioural intention and control over actual behaviour. The examination of indicators of perceived behavioural control reveals interesting results. Knowledge about saving accounts is found to explain 79% of the variance of perceived behavioural control. This is relevant for emphasising increasing knowledge about saving as a financial service for increasing use of financial services in Tanzania. Existing literature identifies saving as the major financial strategy used by households in low and middle income countries (Collin and Gjertson 2011; Lucard et al, 2011; Gjertson, 2014).

Regarding the connection between the negative effect of perceived behavioural control on intention, and the negative effect of intention towards the actual use of financial services, the test was carried out to examine the influence of intention in the absence of perceived behavioural control. The model proved to be insignificant. All goodness of fit indices were below the acceptable criteria for adequate models, such that Comparative Fit Index=.80, Turkey's Fit index =.75 and RMSEA=.93 significant with 90% confidence interval (.91 .95). There are two points that can be discussed as the result of the test. Firstly, the test further confirms the TPB on the importance of non-volition control for intention and performance of behaviour (Ajzen and Madden, 1986). The perceived behavioural control construct is considered to enhance behavioural intention and subsequent behaviour. The intention to use financial services is motivated by the perceived behavioural factors. In the absence of a necessary financial environment, the intention to use financial services may not be active in influencing the use of financial services. Secondly, it can be viewed that the findings support the access and use of financial services literature that emphasise the importance of a necessary environment for the use of financial services (Braunstein and Welch, 2002; Gale and Levine, 2010; Gale et al., 2012). Accordingly, discussion about behavioural factors for the use of financial services should not lag behind the role of perceived control, which refers to the necessary environment for the use of financial services.

### 8.8.5 Attitudes towards Financial Services and the Actual Use of Financial Services

This study additionally tested the direct influence of attitudes on the actual use of financial services modifying the TPB and TRA, where attitude is considered to have an indirect influence on the use of financial services. The model was found to be a reasonable fit and adequate with CFI=.93 and RMSEA=0.06 significant at 90% confidence interval (0.06 0.06). Attitudes towards financial services have significant direct influence on the use of financial services. The observed direct influence is consistent with the proposition of Bagozzi et al., (1989) that behaviour can sometimes be enforced by emotion without intention. It is observed that attitudes towards financial services have a negative effect on the use of financial services. This means that the attitudes towards financial services may directly affect their usage. In one perspective, if attitude refers to negative or positive evaluation of a behaviour/object that can negatively or positively affect the intended performance of behaviour (Ajzen, 1991), these findings suggest some sort of negative attitude towards the use of financial services by individuals and households in Tanzania. This relates to the findings in Chapter 7 that households negatively perceive the use of financial services with respect to such aspects as costs and problems related to accessing financial services. On the other hand, these findings are not conclusive. The findings in chapter 7 also indicate that households hold positive perceptions towards financial services concerning aspects such as security, saving facilities, money management, financing and improvement of economic wellbeing. It could be important to examine in what circumstance attitudes towards financial services can directly or indirectly influence the use of financial services. Investigating such circumstances is beyond the objective of the current study. The current findings highlight the direct influence of attitudes towards financial services on actual use of financial services.

In attempt of finding out why attitudes towards financial services indicated by saving behaviour, perception towards financial services and motivation for saving negatively affect the use of financial services, the enquiry was made into what are the effects of perceived behavioural control on attitudes towards financial services. The result indicates a positive association between perceived behavioural control and attitudes towards financial services. Similarly, the regression analysis showed that perceived behavioural control positively influences attitudes towards financial services. Thus, the negative influence of attitudes towards financial services on the use of financial services cannot be caused by perceived behavioural control.

### 8.8.6 Behavioural Factors and Use of Mobile Money Services

The regression analysis about the influence of household subjective norms, and perceived behavioural control on intention to use mobile money services, suggests that behavioural factors also play an important role in the usage of mobile money services. On one hand, social pressure appears to positively influence the intention to use mobile money services. This is consistent with the theory of reasoned action and the subsequent theory of planned behaviour that individuals' and households' performance of behaviour is influenced by their influential people (Fishbein and Ajzen, 1975; Ajzen and Madden, 1986; Ajzen 1991). Consequently, households' social environments influence their intention to use mobile money services. The negative results of perceived behavioural control on the intention to use mobile money services spotlights that having the necessary resources for the use of financial services affects the intention to use mobile money services. One aspect of this finding confirms the importance of a necessary environment for the use of conventional financial services. As discussed in the body of literature, the non-use of financial services (conventional banking services) relates to barriers such as lack of financial education, physical distance and other eligibility factors. The application of technology, specifically through mobile money services, is presumed to eliminate physical and accessibility barriers (Prior and Santomá, 2010; Demirgüç-Kunt and Klapper, 2013). Thus, where the environment allows for use of conventional financial services (banking financial services), individuals and households may not intend to use mobile money services for banking services. The opposite might be true, that in the presence of resource-related barriers such as eligibility, education and access, but where households have access to mobile money services, there would be more use of mobile money services than conventional financial services. The relevance of this reflects the interesting reports about the increase in the use of mobile money services in Tanzania and other developing countries, where barriers to access are more prominent than in developed countries where the majority of the population have bank accounts. For examples of interesting reports about the increasing use of mobile money services see (Donner, 2008; Etzo and Collender, 2010; Donovan, 2012; FSDT, 2014; Tanzania National Financial Inclusion Framework 2016-2020; ITU-T, 2013, Economides and Jeziorski, 2016). Thus, one can argue that the use of mobile money services in developing countries, as an alternative to conventional financial services, is a result of a lack of sufficient resources for facilitating the usage of conventional financial services.

On the other hand, the negative effect of perceived behavioural control on the intention to use mobile money services cannot be conclusive, since households hold sufficient resources for using conventional banking services compared to mobile money services. As discussed in section 8.8.2, perceived behavioural control has also been observed to negatively affect the intention to use financial services (banking services). These findings solicit an investigation of the necessary environment for facilitating household use of financial services in Tanzania.

In terms of the negative effects of intention to use mobile money services on the actual use of financial services, a similar interpretation to the discussion in section 8.8.4 is made. In other words, household intention to use mobile money services could be affecting the actual use of conventional services, because of the lack of suitable financial services to suit the financial experience of households. Similarly, the intention to use mobile money services may not influence the actual use of conventional financial services due to the existing barriers such as eligibility, physical distance and affordability. It is observed that the increase in the use of mobile money services relates to convenience of mobile money services in comparison with conventional financial services. The advantages of mobile money services relate to reduced requirements for eligibility and widely distributed networks, unlike conventional financial services. Economides and Jeziorski (2016) identify that the introduction of mobile money services in developing countries is related to filling the deficiencies in provision of a financial services infrastructure. In Tanzania, for example, the aspect of eligibility for opening mobile money account is such that the applicant only requires simple identification. The applicant produces an ID and the account is opened (it is important to note that the mobile money services agents are expected to verify the identification following the recent Mobile Money policies in Tanzania (Di Castri and Gidvani, 2014)). Meanwhile, in conventional financial services, following the KYC for consumer protection and Anti Money Laundering and Combating of Financing the Terrorism policy, they require references, evidence of address, a passport sized photo and a letter of introduction from an employer or Ward Executive officer including identification. In terms of distribution channels for services, there are far more mobile network operations points than bank branch networks (see Di Castri and Gidvani, 2014 for details). Such requirements create complexity in accessing conventional financial services, such that even when there is intention to use mobile money services accessing conventional services, it may not become visible. In addition, this finding indicates that an intention to use mobile money services may not stimulate the use of financial services. For instance, Economides and Jeziorski (2016) report that in Tanzania almost 35% of households have at least one mobile money account, but only 2% of the population have an active bank account. Alternatively, an examination of the effects of intention to use mobile money services on the actual use of mobile money services for banking transactions would be valuable for informing financial inclusion initiatives.

## 8.9 Summary

In this chapter, the effects of behavioural factors on intention and use of financial services have been examined. While there is no literature on the effects of behavioural factors on intention and subsequent use of financial services in Tanzania, as well as in the setting of the least developed countries, the study results indicate that behavioural factors matter for use of financial services. Using structural equation modelling, behavioural factors were measured by attitudes towards financial services, subjective norms and perceived behavioural control for the mediator variable “intention to use financial services” and dependent variable “usage of financial services”. It has been observed that attitudes towards financial services, subjective norms and perceived behavioural control matter for households’ intention to use financial services. These results are consistent with the theory of planned behaviour. Perceived behavioural control is strongly associated with other behavioural constructs and significantly decreases the intention to use financial services. In this study, financial education and financial skills were used to measure perceived behavioural control. This suggests an ongoing emphasis on financial literacy, accompanied by financial education at the local level and worldwide, should apply initiatives with diligent care, taking into consideration the specific needs for financial education. Households’ attitudes towards financial services and financial norms positively and significantly stimulate intention to use financial services. Additionally, the mediation role played by intention to use financial services for its antecedents has been confirmed. However, intentions to use financial services have been observed to decrease the actual use of financial services. This highlights that it is not always that once a person intends to use financial services s/he will actually use them. A person may intend to use financial services, but may be barred by features of the products not meeting their desires (see for example Anderloni, 2008). Probably, financial services being offered do not accommodate the financial experience of households. The interesting result is that households’ perceived behavioural control positively influences the use of financial services. This means that perceived behavioural control of necessary resources for use of financial services stimulates the use of financial services. Examining the observable variables used to measure perceived control, it can be argued that perceiving control of financial knowledge and skills increases the use of financial services. Thus, households who perceive they have control of financial knowledge and financial skills could be more likely to use financial services than their counterparts. This is consistent with the emphasis on financial literacy for increasing usage of financial services.

The introduction of attitudes towards financial services as a direct influence of use of financial services highlights that it is not always the case that performance of behaviour should wait for attitudes to influence intention and subsequent behaviour. Depending on attitudes of households, they may use financial services without taking into consideration of their intention. However, the current findings are inconclusive; it would be interesting to investigate in what circumstances attitudes towards financial services directly influence the use of financial services without taking into consideration of individuals' or households' intention.

Additionally, the findings regarding the negative influence of intention to use mobile money services on actual use of financial services challenges the promotion of mobile money services for increasing financial inclusion. It is argued that intention to use mobile money services is not a reliable aspect for increasing the usage of financial services. As discussed earlier, the ineffectiveness of intention may be related to the mismatching of what is intended following the experience, and what is actually offered. Although, there was limited data about the usage of mobile money services for the year under analysis, financial policy initiatives are recommended to take into consideration the effects of subjective norms on the intention to use mobile money services.

In general, the findings highlight different effects of household behavioural characteristics on intention and use of financial services. As pointed out earlier, perceived behavioural control relating to the matters of financial knowledge and skills negatively affect intention to use financial services. Similarly, households who intend to use financial services are less likely to use them. Also, having a positive attitude towards financial services may not necessarily stimulate their usage. This type of result raises questions; why does perceived behavioural control negatively affect the intention to use financial services? Why do intentions to use financial services negatively affect the use of financial services? And why do positive attitudes towards financial services negatively affect the use of financial services, despite the positive association between attitudes towards financial services and perceived behavioural control? These questions suggest that future research should examine the relationship between household behaviour, household financial experience and product features of financial services. This would require construction of household behaviour and household financial experience variables and construction characteristic features of financial services.

On the other hand, the current findings recommend that policy makers should undertake financial literacy initiatives that would lead to the improvement of households' perceived behavioural control. Similarly, financial institutions may consider offering financial services that are constructed according to household livelihoods and financial experiences.

# CHAPTER 9 : CONCLUSION

## 9.1 Introduction

This chapter summarises the achievement of this research. The aim of the research was to understand the role of behavioural factors in the use of financial services. The stated aim was achieved by attempting three key interrelated research questions, such as; i) What are the livelihoods and financial experiences of households in Tanzania? ii) What are the beliefs held by households in Tanzania about the use of financial services? iii) What are the effects of household behavioural characteristics on intention to use financial services and subsquent actual use of financial services? Therefore, the related findings and their implications are summarised in this chapter. Specifically, section 9.2 explains the key findings and main conclusions from the research. Section 9.3 highlights the originality and contributions made by the research. Section 9.4 states the implications of the research. Section 9.5 discusses the limitations of the research. Lastly, section 9.6 proposes areas for further research.

## 9.2 Key Findings

This section will synthesise the findings and conclusions achieved for this research. The main empirical findings are chapter specific and were discussed in the respective chapters 6, 7 and 8. A summary of research questions, key findings and their implications is presented in Appendix K.

**Household livelihood and financial experiences**

The main empirical findings about household livelihood and financial experience, relating to the first research question, are discussed in Chapter 6. The findings highlight that households in Tanzania are involved in varied livelihood and financial experiences. Households engage in varieties of income-generating activities to enhance their livelihood. However, it has been noted that, despite their engagement in multiple income-generating activities, which is advantageous for the environment due to seasonal impacts and other risks, such practice appears not to improve the financial life of households. The failure of the multiple income-generating activities for the households to some extent reflects the recommendation by Start (2001) that diversification of livelihood would not earn expected results if there is under-capitalisation of production and lower productivity. Households diversify their small capital, which results in under-capitalisation and less productivity. Conversely, even households that engage in one income-generating activity have also demonstrated insufficient earnings for their living expenses. In this regard, households reported very low capital, and that their sources of finance are not sufficient. Engaging in one income-generating activity appears to be undesirable because of seasonal and other impacting risks (Ellis, 2000, 2004). On the other hand, households wish to have more capital to diversify their sources of earnings. This implies that households' financing is one of the important aspects for boosting productivity of household income-generating activities. This is consistent with the recommendations of the literature of finance for growth (Zeller, 1999; Beck and Demirgüç-Kunt, 2008; Beck et al., 2010; see also the reviewed literature in Chapter 2).

The research has observed that households hold certain financial behaviours relating to spending, saving and borrowing. In terms of spending, it has been observed that households are faced with many needs to spend their money. Household expenditure is directed to food, transport, education, business, bills, energy, health, saving and much else besides. Because of low income, households' consumptions are limited to investment and other personal spending. In order to supplement their low income, households engage in borrowing. Their borrowing ranges from the need for food to the need of boosting business and investment. Meanwhile, households engage in saving for such motives as precautionary needs, deferred purchase, investment and debt payment. However, it has been noted that in both borrowing and saving, households use inefficient tools and sources. Borrowing from Self Help Groups, friends and credit purchases from grocery stores are not satisfactory for meeting households' financing needs. Similarly, saving through self-help groups and saving at home limits the amount of saving because of security risks and the temptation of spending. In connection with that, Ayyagari et al., (2010) document the findings that informal finance is inefficient compared to formal finance.

Nevertheless, households are faced with financial challenges such as insufficient/low income, business failure, lack of capital and price fluctuations. All these relate to low earnings, seasonal risks, lack of sources of finance and unfavourable changes of price of goods and services. Household are subjected to difficulties such as the problems of making end meet, difficulties related to expansion of business, difficulties in supporting their children's education, difficulties taking care of unforeseen events, difficulties taking care of clothing and failure to improve living standards because of such financial challenges. Consistent with the findings of Collins et al., (2009) households use a variety of strategies to deal with such challenges. They engage in saving and borrowing through Self Help Groups, friends and relatives, grocery stores, engaging in multiple income-generating activities, selling of assets, support from friends and social groups. As already mentioned, such used strategies have been observed to be insufficient to deal with these challenges. This further confirms that, despite the fact that the informal strategies used to some extent help households reduce the consequence of not having any strategy, households need formal financial services to better support their livelihood and general financial life.

The study also found that the majority of households lack financial literacy and money management skills, which are essential for controlling and managing household finances. Although the majority of households have attained primary education, most of them cannot carry out even simple recording of their finances and information. During field work, most households could not record their cash inflows and outflows in diaries prior to training. The majority of households do not understand about financial services from the basic level of saving services to investment services. This shows that attainment of primary school education alone is not sufficient for facilitating household financial skills. The findings by Behrman et al., (2012) indicate that positive effects of schooling are improved by relating it to financial literacy. Lack of financial literacy and money management skills affect household decisions to use financial services and household financial management. Thus, financial literacy is crucial for improving savings, making better decisions about borrowing and general financial decision making (Lusardi 2008; Lusardi and Mitchell 2011; Gaudecker and Von, 2015).

Although the majority of households lack financial knowledge and money management skills, it is observed that households can adopt financial knowledge. This is identified by the end result from training offered by the researcher about financial recording during the recruitment of participants and households' financial diary practice. As mentioned earlier, at the beginning of diary practice the majority of households could not record their finances. However, as the field work continued and households practiced filling of diaries, household diary recording improved. Additionally, the majority of households appreciated that the practice of recording in a diary and frequent meetings discussing their financial experience have improved their skills for keeping records relating to their finances, and has encouraged saving behaviour. This supports what is suggested by Lusardi (2008) that financial education programmes can help improve household saving behaviour and financial decision making.

Therefore, the findings about financial experiences highlight financial experiences practised by households. Accordingly, they demonstrated a lack of adoption of basic financial services. Although this is also available in aggregate data, it makes sense to study it from the bottom to facilitate the understanding of behavioural perspectives on the usage of financial services. As discussed earlier, the financial experiences and environment facilitate the formation of beliefs and behaviour. Consequently, these findings facilitated the examination of household beliefs about financial services discussed in the following section.

**Household Beliefs about the use of financial services**

In relation to the second research question, the study analysed household beliefs about the use of financial services. The intention was to identify the beliefs held by households about financial services despite their non-use. In relation to that, various households' belief about the use of financial services are identified. While there is no literature that has examined the households' beliefs regarding the use of financial services in Tanzania, using qualitative research methods the study records varied household beliefs. It has been discovered from household participants that, despite their non-use of financial services, they positively perceive financial services in the aspects of security, saving facilities, financing, money management and the role of financial services for improving economic wellbeing. This supports the previously observed financial experiences practiced by households. It is noted that households' own financial strategies are weak to support their financial life. Based on that, they consider financial services are superior to their own financial strategies. This also supports the literature about the importance of financial services to households (Beck and Demirgüç-Kunt, 2008; Beck and Brown, 2011). Unlike most literature of finance for growth, where other functions of financial services such as savings and financing have been given priority, the findings about households' positive perception regarding financial services strongly favours the use of financial services for security purpose. This implies that, despite other benefits of financial services, ensuring security of funds is the most important aspect to households. On the other hand, it highlights security being an issue to households in Tanzania.

Conversely, the findings highlight households' negative perceptions about financial services related to such aspects as costs of using financial services, problems related to accessing financial services and deficiency in security of funds with financial institutions. This reflects what households consider the disadvantages of using financial services. This implies that, despite the benefits of financial services (see Beck and Brown, 2011), they are considered to have some disadvantages. Similarly, it was found that perception of difficulties for using financial services relate to characteristics of financial services, households' low income, spending behaviour, lack of financial knowledge and simply lack of interest in using financial services. This relates to financial experiences practiced by households that, based on their low level of income, the required minimum amount for bank accounts and associated costs are perceived to be high. Additionally, they lack financial knowledge, which is essential for engaging in financial services. According to Ajzen (1991), perception of presence of factors that impede the performance of behaviour leads to the formation of perception of lack of control to perform the intended behaviour. Perceived difficulties of financial services decrease household confidence to engage in them. Alternatively, perceived ease of using financial services relate to the factors that increase confidence in the ability to use financial services. The findings spotlight that reduction of costs of financial services, elimination of bureaucracy to accessing financial services, and employment of technology are perceived to facilitate the usage of financial services. Improvement in technology is perceived as an easy way of using financial services, and to some extent supports the increase of use of mobile money services in Tanzania.

In terms of social influence, the findings indicate social pressure plays a role in influencing household decisions about whether or not to use financial services. This is consistent with the literature that subjective norms affect individuals and household decision-making (Ajzen, 1991; Granovetter, 2005). The findings of this study indicate the source of influence of social pressure comes from family, friends, neighbours and social groups. This implies that households may or may not use financial services depending on their reference to individuals or groups.

The findings about household beliefs concerning financial services facilitate the examination of the effects of behavioural factors in the following ways. They expose beliefs held by households regarding financial services. This is potential for investigating the usage of financial services in relation to voluntary exclusion. Beliefs are considered to be the foundation for the formation of behavioural characteristics. Accordingly, the results offered important information for construction of behavioural variables for the completion of the thesis. The observed perceptions held by households about financial services informed the construction of attitudes towards financial services; perception about social pressure in the usage of financial services informed the construction on subjective norms, and perception about the ease or difficulty of using financial services informed the formation of perceived behavioural control variables.

**The influence of Behavioural factors on intention to use financial services and actual use of financial services**

The third research question relates to examination of the effects of behavioural factors onr intention and use of financial services. This is presented in detail in Chapter 8. The objective under discussion relates to providing empirical evidence regarding the role of behavioural factors on the use of financial services. While there is no literature on the effects of behavioural factors on intention and subsequent use of financial services in Tanzania, as well as in the setting of the least developed countries, the findings indicate that behavioural factors matter for the usage of financial services. Based on structural equation modelling (SEM), the findings indicate that attitudes towards financial services, subjective norms and perceived behavioural control matter for households' intention to use financial services. These results are consistent with the theory of planned behaviour. The perceived behavioural control indicated by financial education and financial skills is strongly associated with other behavioural constructs. It significantly affects the intention to use financial services. The negative impacts of perceived behavioural control on intention to use financial services are robust to the use of various measures of the use of financial services. These include the intention to use financial services, measured by desire for acquiring knowledge on how to open a bank account, desire to own a bank account and intention to use mobile money services. However, the impacts of attitudes towards financial services on intention to use mobile money services are insignificant. This implies that household behavioural attitudes do not matter for the use of mobile money services. Contrary to the emphasis of financial literacy (as an indicator of perceived behavioural control) for increasing financial inclusion, the findings in the current study highlight that financial knowledge and financial skills may not necessarily stimulate the intention to use financial services.

Furthermore, it was found that, despite the observed negative influence of perceived behavioural control on intention to use financial services, households' attitudes towards financial services and subjective norms significantly influence intention to use financial services. Moreover, the findings confirm the mediation role played by intention to use financial services for its antecedents (attitude toward behaviour, subjective norms and perceived control). However, it is observed that intentions to use financial services affect the usage of financial services. This highlights that once a person intends to use financial services s/he will not always actually use them. Accordingly, Ajzen (1991); Kuhl and Beckman (1985) suggest that it is not always that the intention to perform behaviour may result in performance of actual behaviour. It is argued that intention can only predict the endeavour to perform behaviour, but the actual behaviour may not be performed (Ajzen, 1991). Similarly, Kuhl and Beckman (1985) point out that performance of behaviour is controlled by intention, but not all intention may be carried out. Additionally, a person may intend to use financial services, but may be barred by features of the products not meeting their desires (see for example Anderloni, 2008). This could suggest that financial services being offered do not accommodate the financial experiences of households. Chapter 6 of this thesis discussed the financial experience of households. However, it is beyond the scope of the study to assess the characteristics of financial services to match with the financial experiences of households. On the other hand, taking into account the measures of intention used here, these findings also suggest that households who possess control of use of financial services are less likely to desire knowledge about financial services. The implication is financial literacy programmes should be directed to identified targets rather than generalised.

The interesting finding is that household perceived behavioural control influences household’s use of financial services. This means perceived control of necessary resources for use of financial services stimulates the actual use of financial services. It can be argued that perceiving control of financial knowledge and skills increases the use of financial services. Thus, households who perceive control of financial knowledge and financial skills are more likely to use financial services than their counterparts. This supports the literature that financial knowledge and skills are important for facilitating the use of financial services (Cole et al., 2009; Lusardi et al., 2010; Gale et al., 2012). On the other hand, considering the negative impacts of perceived behavioural control on intention, and the negative impact of intention on the actual use of financial services, the findings make the role of intention to use financial services on the actual use of financial services questionable. As elucidated earlier, intention may not necessarily result in performance of behaviour (Kuhl and Beckman 1985; Ajzen, 1991). In this study, it is likely that the presence of access to financial services barriers, such as high minimum amounts and associated costs, which were not measured, could account for intention not leading to the use of financial services. It is necessary in any future studies to account for such barriers to accessing financial services in the examination of the influence of intention in the use of financial services. Meanwhile, the role of perceived behavioural control on the actual use of financial services outweighs the role of intention to use financial services. This suggests that establishment of an environment that help to build perceived behavioural control of use of financial services is crucial for increasing use of financial services.

## 9.3 Contributions and Significance of the Study

The findings of this study contribute knowledge to the limited literature about the determinants for the use of financial services, specifically the effects of behavioural factors in Tanzania and any other country that has similar characteristics. The study provides insights into the influence of behavioural characteristics on the use of financial services in following ways;

The study is an interdisciplinary research that developed a behavioural conceptual framework for predicting household use of financial services. It integrated finance perspectives and psychological perspectives based on human behavioural models, the theory of planned behaviour. Since most of the previous studies whicht investigated the determinants of use of financial services are based on field finance (for instance Baokye and Amankwa, 2012; Seluhinga 2013), interdisciplinary research offers a broader understanding of the phenomena from various perspectives. To the knowledge of the researcher, up to the time this research is completed, there is not yet any published research in the setting of Tanzania and other countries that have undertaken to understand the role of behavioural factors for household use of financial services.

Additionally, the data used in this research is original. It employed financial diary methodology, interviews and survey data that include both economic and behavioural information. The use of multiple sources of data helps complement the study. The researcher produced original data through financial diary methodology and interviews. The findings from the original data were complemented by readily available national survey data (FinScope Survey data set 2006 and 2013) to facilitate generalisation of the findings. The understanding of the financial experiences of households and beliefs, from financial diary methodology and interviews, informed the construction of relevant behavioural information for examining the use of financial services. Thus, the study documents household financial experiences, household beliefs and that behavioural characteristics influence the use of financial services.

## 9.4 Policy Implications

Based on the key findings explained above, this research proposes the following policy implications;

The findings indicate that, despite the positive perception about use of financial services for such aspects as security, saving facilities and improvement of living standards, households hold unfavourable perceptions about the high costs associated with the usage of financial services and accessibility of financial services, specifically complicated procedures of accessing financial services. Accordingly, it is recommended that the government and financial policy makers, in collaboration with financial institutions, should consider aspects of costs for provision of financial services and access to financial services. Although it is not recommended that financial services are to be offered for free, the reduction of costs to the basic financial services to match the income of the majority is important for increasing usage of financial services. Consequently, the introduction of a basic account that is affordable by the majority could serve the purpose. It should not be bank specific, but should consider a network of banks offering a similar service affordable to all, including the underserved. In connection to that, technological based solutions such as mobile money services are highly encouraged as they facilitate greater access to financial services. On the other hand, facilitating easy access to financial services and respective usage of financial services could be promoted by ensuring the developed financial products relatively match the environment of the majority of prospective consumers. For example, in facilitating access to credit, collateral for securing loans by accepting land ownership legalised at village level, which comprises the majority, rather than the current condition that is based on registered land, which comprises the minority in Tanzania.

On the other hand, the findings that perceived behavioural control influence the use of financial services broadly implies that eliminating barriers to accessing financial services (such as financial illiteracy, eligibility, documentation requirements, cost of services and physical barriers) is crucial for improving confidence in using financial services. Following measures used for perceived behavioural control, i.e., financial knowledge and skills, on one hand it is proposed that financial literacy programmes should be given priority for instilling confidence to potential users of financial services and facilitating financially responsible decisions. This supports the recently launched National Financial Inclusion Framework (NFIF) 2016-2020 that includes financial education programmes. On the other hand, caution should be undertaken in initiating and implementing financial education programmes. The findings in the current study indicate that intention to use financial services, measured by desire for financial education, affects the use of financial services. Thus, not all or any kinds of financial education may enhance use of financial services. The following are recommended to be considered prior to the introduction of such financial literacy programmes; there should be assessment of the level of financial illiteracy and demand for financial education in order to deliver relevant and required knowledge. The curriculum for financial education should consider the specific demand for financial services and the financial environment of users and potential users of financial services. Additionally, the delivery of financial education should not only be theoretically oriented, but should include practice to instil financial skills.

Additionally, based on the findings that individuals’ and households’ decisions to use financial services can be subject to social influence, financial institutions are recommended to collaborate with social networks to create awareness and promote the usage of financial services. When social networks positively perceive financial services and their usage, this will increase confidence in individuals and/or household members to participate in financial services.

The findings that households believe that financial services are important for improving living standards support and put emphasis on policy initiatives for increasing use of financial services for economic wellbeing. In general, the government and policy makers should establish the necessary environment that facilitates use of financial services. This includes increasing access to financial services by eliminating access barriers. In connection with that, policy making for increasing use of financial services should be founded on specific demand for financial services. Households’ nature of income-generating activities, the frequency of earnings, the impacts of seasons, cash flows and related financial shocks should be considered in establishing policies, as well as in the design of financial services. It should not be just a matter of generally making financial services more accessible, but such services should be designed in such a way that they match households’ need for financial services

## 9.5 Limitations

As with any other study, it is not possible to research and cover every aspect of the topic with limited time and resources. This study is subject to several limitations, although the sample used to understand household financial experiences and elicitation of household beliefs is suitable to the nature of the objective of the study and in relation to the use of financial diary methodology as described in Chapter 1, 5, 6 and 7. The specific findings about financial experiences offer an overview of household experiences in Tanzania and are limited to generalisation. On the other hand, the findings from the in-depth studied sample offered rich information for choice of variables for examining effects of behavioural characteristics in the use of financial services with a larger and generalised sample.

Secondly, unlike other studies, such as (Osili and Paulson, 2008; Kostov et al., 2012) this thesis explored the effects of behavioural factors for the use of financial services in Tanzania, where barriers to access are prominent. The presence of barriers to access affects perceived behavioural control of using financial services. Due to the limitation of data, in this study the variables for facilitating access to financial services, (including barriers to access) for instance affordability, eligibility and physical access that were expected to be included in measuring perceived behavioural control of using financial services were not statistically measured. Although the perceived behavioural control was sufficiently indicated by financial skills, in future research such barriers need to be measured and included.

Unlike other studies based on the theory of planned behaviour that suggest the use of behavioural intention (see Fishbein and Ajzen, 1980; Ajzen, 1991, Sutton; 1998; Ajzen, 2002; Huda et al., 2012), this study measured intention to use financial services by the desire to acquire education about how to open accounts and desire to own bank accounts. The measure used is to some extent supported by some literature (see for example Armitage and Conner, 2001). Therefore, a better measure could have benefited the study.

Thirdly, the general use of financial services was indicated by the holding of accounts with formal financial institutions, although there are other financial services such as credit, insurance, pension, payment investment and related services. On the other hand, the measure is sufficient in two aspects. Firstly, the existing literature documents a demand for savings services in developing countries, and saving behaviour is documented as a major financial strategy used by households (Newman et al., 2008; Cole et al., 2009; Lusardi et al., 2011). Secondly, a saving account is considered to be an entry to accessing other financial services (for instance, descriptive analysis about perception of using financial services indicated 66% of respondents agree having an account could make it easier to access credit services). However, other aspects of financial services such as credits, payment services, and investment services could be explored to underline how behavioural factors influence each category of services.

Undertaking the study based on the household as a unit is subjected to several challenges. The challenges relate to the definition of a household (see for example Beaman and Dillon, 2012). Beaman and Dillon (2012) recommend that the definition of household should be tailored to the need of the study. The current study defined a household as a group of two or more people living together in the same house/place, sharing their income and expenditure for understanding household livelihood and financial experince. In addition, due to the limitation of resources, the research could not collect information about each member of the household. In this study, only representantives of household (the head of household and/or any household member involved in making household financial decisions) had their personal information collected. This facilitated the collection of necessary information about the entire households' livelihood and finance. Accordingly, Cull and Scott (2010) suggest that information about the use of financial services provided by a household head on behalf of the households are similar to the information that could be obtained from individual household members. However, involving all household members would have been better for collecting individual members' opinions and beliefs about the use of financial services at the household level.

## 9.6 Areas for Future Research

The employed theory of planned behaviour has facilitated explaining the intention to use financial services and the precedent factors. However, it should be noted that this study faced limitation of data in securing proper measures for intention and actual use of financial services, as suggested by Ajzen (1991). Therefore, allowing for availability of time and resources it would be necessary to undertake experimental study by eliciting intentions that are linked to efforts and motivation for the action, matched to time target and context of the intended behaviour. This could be then followed by a follow-up survey scrutinising the execution of the stated intention to the intended behaviour.

In this thesis, a savings account was used to measure use of financial services. However, financial services are not only savings accounts. In this regard, other aspects of financial services such as credits, payment services, and investment services are recommended to be explored to underscore how behavioural factors influence each category of services. In addition to that, future studies may consider the effects of behavioural factors on the use of financial services, by taking into account specific features of financial products.

On the other hand, in the setting of a study in an area such as Tanzania, where there is existence of access barriers, it is suggested that there should be an evaluation of the state of supply and demand for financial services. For example, where data would allow, the access possibility frontier framework employed by Beck and De la Torre (2006) to evaluate demand and supply across countries could be used at the country level. Alternatively, a comparative study on the effects of behavioural factors in the use of financial services amongst developing countries, and between developing countries and developed countries, would be worthwhile for underscoring the role of behaviour, whether they are country specific or generalised.

# REFERENCES


Ackert, L., and Deaves, R. (2009). *Behavioral finance: Psychology, decision-making, and markets*. Cengage Learning.

Adams, M., Chira, I. and Thornton, B. (2008) "Behavioral Bias within the Decision Making Process", *Journal of Business and Economics Research* **Volume 6**, Number 8

Ajzen, I. (1991). 'The Theory of Planned Behaviour Organizational Behaviour and Human Decision Processes', 50(2), 179–211. Doe: 10.1016/0749-5978(91)90020-T

Ajzen, I. (2006). *Constructing a theory of planned behaviour questionnaire*.

Ajzen, I. (2002). 'Constructing a TPB questionnaire: Conceptual and methodological considerations'.

Ajzen, I. (2001). 'Nature and operation of attitudes', *Annual Review of Psychology*, **52**(1), pp. 2758.

Ajzen, I. (1985). 'From intentions to actions: A theory of planned behaviour', *Action control*, pp.11-39, Springer.

Ajzen, I. and Madden, T. J. (1986). 'Prediction of goal-directed behaviour: Attitudes, intentions, and perceived behavioural control', *Journal of experimental social psychology*, **22**(5), pp. 453-474.

Akhter, W., Akhtar, N., and Jaffri, S. K. A. (2009). Islamic micro-finance and poverty alleviation: A case of Pakistan. *Proceeding of the 2 nd CBRC, Lahore*.

Akinlo, A. E. and Egbetunde, T. (2010). 'Financial development and economic growth: Theexperience of 10 sub-Saharan African countries revisited', The Review of Finance and Banking, 2(1).

Al-Hussainy, E., Beck, T., Demirguc-Kunt, A. and Zia, B. (2008). 'Household use of financial services', *World Bank Working Paper*,.

Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L.W. and Valenzuela, P. (2014). 'Improving access to banking: evidence from Kenya'. *Journal of Economic Literature*, JEL CODES: G2; O1; R2.

Allen, F., Demirgüç-Kunt, A., Klapper, L. and Pería, M. S. M. (2016). 'The foundations of financial inclusion: Understanding ownership and use of formal accounts', *Journal of Financial Intermediation*.

Allen, F. and Gale, D. (1997). 'Financial markets, intermediaries, and intertemporal smoothing', *Journal of political Economy,* **105**(3), pp. 523-546.

Allen, H. and Panetta, D. (2010). 'Savings groups: What are they', *Washington DC: SEEP Network.*

Altunbas, Y., Thornton, J. and Kara, A. (2010). 'What Determines Financial Exclusion? Evidence from Bolivian Household Data'. *Bangor Business School Working Paper,* JEL classification: D14, G21

Anayiotos, G. and Toroyan, H. (2009). 'Institutional factors and financial sector development: Evidence from Sub-Saharan Africa', *IMF Working Papers,* pp. 1-25.

Anderloni, L. (2008). *Financial services provision and prevention of financial exclusion, European Commission,* Brussels.

Ang, J. B. (2007). Are saving and investment cointegrated? The case of Malaysia (1965–2003). *Applied Economics, 39*(17), 2167-2174.

Annim, S., Arun, T. and Kostov, P. (2013). 'Effect of Perceptions and Behaviour on Access to and Use of Financial Service: Evidence from South Africa', *Discussion Paper Series*, IZA DP No. 7042

Ardic, O. P., Heimann, M. and Mylenko, N. (2011). 'Access to financial services and the financial inclusion agenda around the world: a cross-country analysis with a new data set', *World Bank Policy Research Working Paper Series, Vol.*

Arestis, P., Demetriades, P. O. and Luintel, K. B. (2001). 'Financial development and economic growth: the role of stock markets', *Journal of Money, Credit and Banking,* pp. 16-41.

Armitage, C. J. and Conner, M. (2001). 'Efficacy of the theory of planned behaviour: A meta-analytic review', *British journal of social psychology,* **40**(4), pp. 471-499.

Aronson, E., Fried, C. and Stone, J. (1991). 'Overcoming denial and increasing the intention to use condoms through the induction of hypocrisy', *American Journal of Public Health,* **81**(12), pp. 1636-1638.

Arun, T. and Murinde, V. (2010). 'Microfinance regulation and social protection', *European Report on development Policy.*

Aryeetey, E. (1992). The relationship between the formal and informal sectors of the financial market in Ghana. *AERCResearch Paper*, *10*, 40.

Aryeetey, E. (1997). Savings, Investment and Financial Development with Informal and Semi-formal Financial Markets in Africa. *African Development Review*, *9*(1), 210-233.

Aryeetey, E. (1998). *Informal finance for private sector development in Africa*. African Development Bank Group.

Aryeetey, E. (2008). 'From informal finance to formal finance in sub $ saharan africa: Lessons from linkage efforts', *AERC/IMF African Finance for the 21st Century Unpublished Manuscript.*

Aryeetey, E. (2005). 'Informal finance for private sector development in Sub-Saharan Africa', *ESR Review*, **7**(1), pp. 13.

Aryeetey, E., Hettige, H., Nissanke, M. and Steel, W. (1997). 'Financial market fragmentation and reforms in Ghana, Malawi, Nigeria, and Tanzania', *The World Bank Economic Review*, **11**(2), pp. 195-218.

Aterido, R., Beck, T. and Iacovone, L. (2013). 'Access to finance in sub-Saharan Africa: Is there a gender gap?’, *World Development*, **47**, pp. 102-120.

Aterido, R., Beck, T. and Lacovone, L. (2011). 'Gender and finance in Sub-Saharan Africa: are women disadvantaged?’ *World Bank Policy Research Working Paper Series, Vol,.*

Atkinson, A. (2006). 'Migrants and financial services: A review of the situation in the United Kingdom', *Personal Finance Research Centre Research Report.*

Atkinson, A., McKay, S., Kempson, E., and Collard, S. (2006). Levels of Financial Capability in the UK: results of a baseline survey. UK: financial Services Authority. *London, United Kingdom*.

Attride-Stirling, J. (2001). 'Thematic networks: an analytic tool for qualitative research', *Qualitative research*, **1**(3), pp. 385-405.

Awang, Z. (2014). 'A handbook on SEM for academicians and practitioners: Step by step practical guides for the beginners’ (Vol. 2 Firs.)', *Perpustakan Negara Malaysia: MPSW Rich Resources.*

Ayyagari, M., Beck, T. and Hoseini, M. (2013). ‘Finance an Poverty: Evidence from India, JEL codes: G21, G28, O15, O16

Ayyagari, M., Demirgüç-Kunt, A. and Maksimovic, V. (2010). 'Formal versus informal finance: Evidence from China', *Review of Financial Studies*, **23**(8), pp. 3048-3097.

Ayyagari, M., Demirgüç-Kunt, A. and Maksimovic, V. (2008). 'How important are financing constraints? The role of finance in the business environment', *The world bank economic review*, **22**(3), pp. 483-516.

Bae, K., Han, D. and Sohn, H. (2012). 'Importance of Access to Finance in Reducing Income Inequality and Poverty Level', *International Review of Public Administration,* **17**(1), pp. 55-77.

Bagozzi, R. P. (2000). 'On the concept of intentional social action in consumer behaviour', *Journal of Consumer Research,* **27**(3), pp. 388-396.

Bagozzi, R. P., Baumgartner, J. and Yi, Y. (1989). 'An investigation into the role of intentions as mediators of the attitude-behaviour relationship', *Journal of Economic Psychology*, **10**(1), pp. 35-62.

Bankable Frontier Associates (2010) South African Financial Diaries and the Mzansi Initiative: Five Years Later, FinMark Trust, Draft date: 16 January 2010

Bankable Frontier Associates. (2011) Financial management of vulnerable youth in Northern
Uganda:Reflections on research methodologies. Bankable Frontier Associates , Somerville, MA:

Bankable Frontier Associates and Ntare Insights (2013) Rwanda Financial Diaries: Understanding the Financial Lives and Product Needs of Rwanda's Underserved Consumers Bankable Frontier Associates and Ntare Insights, March, 2013

Bank of Tanzania (2008). 'Second Generation Financial Sector Reforms'. The 14th Conference of Financial Institutions Report. Arusha International Conference Centre (aicc), Arusha, Tanzania , November.

Bank of Tanzania (2011). 'Tanzania's Mainland 50 Years of Independence: A Role and Functions of the Bank of Tanzania (1961-2011)'. 50$^{th}$ Anniversary Independence of Tanzania Mainland, Bank of Tanzania, Dar es salaam, Tanzania.

Bank of Tanzania (2014). 'Monetary Policy Statement 2014/15', Bank of Tanzania, June 2014 ISSN 0856-6976

Bank of Tanzania (2015). 'FinScope Survey in Tanzania'. Available at; http://www.bot-tz.org/mfi/Documents/FINSCOPEsurvey2.htm. Accessed 14 March 2015)

Banerjee, A., Duflo, E., Glennerster, R., and Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics, 7*(1), 22-53.

Barberis, N., and Thaler, R. (2005). *Advances in behavioral finance*. Volume II. Princeton University Press

Baumol, W., and Blinder, A. (2011). *Microeconomics: Principles and Policy*. Cengage Learning.

Beaman, L. and Dillon, A. (2012). 'Do household definitions matter in survey design? Results from a randomized survey experiment in Mali', *Journal of Development Economics,* **98**(1), pp. 124-135.

Beck, T. and Cull, R. (2013). 'Banking in Africa'. *World Bank policy research*, (6684).

Beck, T. and Brown, M. (2010). 'Which Households Use Banks? Evidence from the Transition Economies (Replaced by CentER DP 2011-089)', *CentER Discussion Paper*, 2010.

Beck, T. (2011). 'The role of finance in economic development: Benefits, risks, and politics', *European Banking Center Discussion Paper*, (2011-038).

Beck, T. and Brown, M. (2011). 'Use of banking services in emerging markets-household-level evidence' *CEPR Discussion Paper* No. DP8475, Available at SSRN: http://ssrn.com/abstract=1889998

Beck, T. and De la Torre, A. (2006). *The basic analytics of access to financial services*, World Bank Publications.

Beck, T. and Demirgüç-Kunt, A. (2008). 'Access to finance: An unfinished agenda', *The World Bank Economic Review,* **22**(3), pp. 383-396.

Beck, T., Demirgüç-Kunt, A. and Honohan, P. (2009). 'Access to financial services: Measurement, impact, and policies', *The World Bank Research Observer*,.

Beck, T., Demirgüç-Kunt, A. and Honohan, P. (2008). 'Finance for all? Policies and pitfalls in expanding access, *World Bank. Washington, DC.*

Beck, T., Demirgüç-Kunt, A., Laeven, L. and Levine, R. (2008). 'Finance, firm size, and growth', *Journal of Money, Credit and Banking,* **40**(7), pp. 1379-1405.

Beck, T., Demirgüç-Kunt, A. and Levine, R. (2007). 'Finance, inequality and the poor', *Journal of economic growth,* **12**(1), pp. 27-49.

Beck, T., Demirgüç-Kunt, A. and Maksimovic, V. (2005). 'Financial and legal constraints to growth: Does firm size matter?', *The Journal of Finance,* **60**(1), pp. 137-177.

Beck, T., Demirgüç-Kunt, A. and Maksimovic, V. (2004). 'Bank competition and access to finance: International evidence', *Journal of Money, Credit and Banking,* pp. 627-648.

Beck, T., Demirgüç-Kunt, A. and Peria, M. S. M. (2007). 'Reaching out: Access to and use of banking services across countries', *Journal of Financial Economics,* **85**(1), pp. 234-266.

Beck, T., Demirgüç-Kunt, A. and Peria, M. S. M. (2008). 'Banking services for everyone? Barriers to bank access and use around the world', *The World Bank Economic Review,* **22**(3), pp. 397-430.

Beck, T. and Levine, R. (2008). 'Legal institutions and financial development', *Handbook of new institutional economics*, pp. 251-278, Springer.

Behrman, J. R., Mitchell, O. S., Soo, C. K. and Brava, D. (2012). 'How financial literacy affects household wealth accumulation', *The American Economic Review,* **102**(3), pp. 300-304.

Bentler, P. M. and Bonett, D. G. (1980). 'Significance tests and goodness of fit in the analysis of covariance structures.' *Psychological bulletin,* **88**(3), pp. 588.

Bentler, P. M. and Speckart, G. (1981). 'Attitudes" cause" behaviours: A structural equation analysis.' *Journal of personality and social psychology,* **40**(2), pp. 226.

Bernath, U. and Vidal, M. (2007). 'The theories and the theorists: Why theory is important for research', *Distances et savoirs,* **5**(3), pp. 427-457.

Bhushan, P. and Medury, Y. (2013). 'Financial Literacy and its Determinants'. *International, Journal of Engineering, Business and Enterprise Applications (IJEBEA),* **4(2)**(March-May, 2013, pp. 155-160).

Bhushan, P. (2014). 'Insights into awareness level and Investment Behaviour of salaried individuals towards Financial Products', *International Journal of Engineering, Business and Enterprise Applications,* **8**(1), pp. 53-57.

Bigsten, A. and Danielsson, A. (1999). 'Is Tanzania an emerging economy', *Report to the OECD,* Gothenburg and Lund, Sweden.

Björklund, A. and Jäntti, M. (2009). 'Intergenerational income mobility and the role of family background', *Oxford Handbook of Economic Inequality, Oxford University Press, Oxford.*

Blanco, J. (2014). 'MicroCapital, Brief: Commercial Bank of Africa, Vodacom Tanzania launch mobile money service "M-Pawa"'. Available at http://www.microcapital.org/microcapital-brief-commercial-bank-of-africa-vodacom-tanzania-launch-mobile-money-service-m-pawa/ Accessed December 6 2014.

Boakye, C. and Amankwah, N. (2012). 'Determinants of the demand for financial products in Ghana'. *Ghana Institute of Management and Public Administration*, Accessed on 22nd October 2013(www.Microfinancegateway.org)

Bollen, K. A. and Pearl, J. (2013). 'Eight myths about causality and structural equation models', *Handbook of causal analysis for social research*, pp. 301-328, Springer.

De Bondt, W. F., and Thaler, R. H. (1995). Financial decision-making in markets and firms: A behavioral perspective. *Handbooks in operations research and management science*, *9*, 385-410.

Bowen, N. K. and Guo, S. (2011). *Structural equation modeling*, Oxford University Press.

Bower, D. J., Wolkomir, M. S. and Schubot, D. B. (1997). 'The effects of the ALSO course as an educational intervention for residents. Advanced Life Support in Obstetrics', *Family medicine*, **29**(3), pp. 187-193.

Braun, V. and Clarke, V. (2006). 'Using thematic analysis in psychology', *Qualitative research in psychology*, **3**(2), pp. 77-101.

Braunstein, S. and Welch, C. (2002). 'Financial literacy: An overview of practice, research, and policy', *Fed.Res.Bull.*, **88**, pp. 445.

Brown, A., Mackie, P., Smith, A and Msoka, C. (2015) Financial Inclusion and Microfinance in Tanzania, Inclusive Growth; Tanzania Country Report, ESRC and DFID

Brown, T. (2006). 'Confirmatory factor analysis for applied research. New York, NY: Guilford.Brown, T. A. (2015). *Confirmatory factor analysis for applied research*, Guilford Publications.

Browning, M. and Crossley, T. (2001). 'The life-cycle model of consumption and saving', *The Journal of Economic Perspectives*, **15**(3), pp. 3-22.

Bryman, A. (2015). *Social research methods*, Oxford University press.

Bryman, A. and Bell, E. (2015). *Business research methods*, Oxford University Press, USA.

Bryman, A. and Burgess, B. (2002). *Analyzing qualitative data*, Routledge.

Byrne, B. M. (2001). 'Structural equation modeling with AMOS, EQS, and LISREL: Comparative approaches to testing for the factorial validity of a measuring instrument', *International journal of testing*, **1**(1), pp. 55-86.

Cagatay, N. (1998). *Gender and poverty*. UNDP, Social Development and Poverty Elimination Division.

Camara, N., Peña, X., and Tuesta, D. (2014). Factors that matter for financial inclusion: Evidence from Peru. *The International Journal of Finance (Forthcoming).*

Campbell, J. Y. (2006). 'Household Finance', *The Journal of Finance*, **61**(4), pp. vi+1553-1604.

Carroll, C.D. and Weil, D.N. (1994). 'Saving and growth: a reinterpretation'. Carnegie-Rochester Conference Series on Public Policy, *In Carnegie-Rochester Conference Series on Public Policy* (Vol. 40, pp. 133-192). North-Holland.

Casper, L. M., McLanahan, S. S., and Garfinkel, I. (1994). The gender-poverty gap: What we can learn from other countries. *American sociological review*, 594-605.

Cetorelli, N., Mandel, B. H., and Mollineaux, L. (2012). The evolution of banks and financial intermediation: framing the analysis. *Federal Reserve Bank of New York Economic Policy Review*, *18*(2), 1-12.

Chen, K. C. and Chivakul, M. (2008). *What drives household borrowing and credit constraints? Evidence from Bosnia and Herzegovina*, International Monetary Fund.

Chimobi, O. P. (2010). 'The causal relationship among financial development, trade openness and economic growth in Nigeria', *International Journal of Economics and Finance*, **2**(2), pp. 137.

Chipeta, C., and Mkandawire, M. L. (1996). *Financial integration and development in sub-Saharan Africa: The formal and semi-formal financial sectors in Malawi*. Overseas Development Institute.

Chowdhury, A. (2009). Microfinance as a poverty reduction tool—A critical assessment. *United Nations, Department of Economic and Social Affairs (DESA) working paper,(89)*.

Christensen, G. (1993). The limits to informal financial intermediation. *World Development*, *21*(5), 721-731.

Christiaensen, L. J. (2007). *Down to earth: agriculture and poverty reduction in Africa*. World Bank Publications.

Christopoulos, D. K. and Tsionas, E. G. (2004). 'Financial development and economic growth: evidence from panel unit root and cointegration tests', *Journal of Development Economics,* **73**(1), pp. 55-74.

Čihák, M., Demirgüč-Kunt, A., Feyen, E. and Levine, R. (2013). 'Financial development in 205 economies, 1960 to 2010', *National Bureau of Economic Research,* (No. w18946).

Claessens, S. (2006). 'Access to financial services: A review of the issues and public policy objectives', *The World Bank Research Observer,* **21**(2), pp. 207-240.

Claessens, S. and Perotti, E. (2007). 'Finance and inequality: Channels and evidence', *Journal of Comparative Economics,* **35**(4), pp. 748-773.

Clarke, G., Cull, R., Peria, M. S. M. and Sanchez, S. M. (2003). 'Foreign bank entry: Experience, implications for developing economies, and agenda for further research', *The World Bank Research Observer*, **18**(1), pp. 25-59.

Clarke, G., Xu, L., and Zou, F. (2006). Finance and income inequality: what do the data tell us?. *Southern economic journal,* 578-596.

Clarke, G. R., Zou, H. F., and Xu, C. (2003). *Finance and income inequality: test of alternative theories* (Vol. 2984). World Bank Publications.

Cohen, J., Cohen, P., West, G. and Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioural sciences*, Routledge.

Cole, S. A., Sampson, T. A. and Zia, B. H. (2009). *Financial literacy, financial decisions, and the demand for financial services: evidence from India and Indonesia*, Harvard Business School Cambridge, MA.

Cole, S., Sampson, T. and Zia, B. (2011). 'Prices or knowledge? What drives demand for financial services in emerging markets?', *The Journal of Finance*, **66**(6), pp. 1933-1967.

Collins, D. (2005). 'Financial instruments of the poor: initial findings from the South African Financial Diaries study', *Development Southern Africa*, **22**(5), pp. 717-728.

Collins, D., Morduch, J., Rutherford, S. and Ruthven, O. (2009). *Portfolios of the poor: how the world's poor live on $2 a day*, Princeton University Press.

Conner, M., Norman, P. and Bell, R. (2002). 'The theory of planned behaviour and healthy eating.' *Health psychology*, **21**(2), pp. 194.

Conte, J., Baudains, C. and Lyons, T. (2010). 'Connecting the dots: What can we learn from other disciplines about behaviour change?', *Extension Farming Systems Journal*, **6**(1), pp. 106.

Cull, R. and Scott, K. (2010). 'Measuring household usage of financial services: does it matter how or whom you ask?', *The World Bank Economic Review*, pp. lhq004.

Davčik, N. S. (2013). 'The Use and Misuse of Structural Equation Modeling in Management Research', *Working Paper–Working Paper–13/07*, Institute Universitario de Lisboa.

Davies, B., Hodnett, E., Hannah, M., O'Brien-Pallas, L., Pringle, D., Wells, G. and Perinatal Partnership Program of Eastern and Southeastern Ontario and the Society of Obstetricians and Gynaecologists of Canada (2002). 'Fetal health surveillance: a community-wide approach versus a tailored intervention for the implementation of clinical practice guidelines', *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne*, **167**(5), pp. 469-474.

De Gregorio, J. and Guidotti, P. E. (1995). 'Financial development and economic growth', *World Development*, **23**(3), pp. 433-448.

Deaton, A. (1989). 'Saving in developing countries: Theory and review', *The World Bank Economic Review*, **3**(suppl 1), pp. 61-96.

Demetriades, P. O. and Hussein, K. A. (1996). 'Does financial development cause economic growth? Time-series evidence from 16 countries', *Journal of Development Economics*, **51**(2), pp. 387-411.

Demirgüç-Kunt, A., Beck, T. and Honohan, P. (2008). *Finance for all?: Policies and Pitfalls in Expanding Access.*, World Bank.

Demirgüç-Kunt, A. and Klapper, L. (2013). 'Measuring financial inclusion: Explaining variation in use of financial services across and within countries', *Brookings Papers on Economic Activity*, **2013**(1), pp. 279-340.

Demirgüç-Kunt, A. and Klapper, L. F. (2012). 'Measuring financial inclusion: The global findex database', *World Bank Policy Research Working Paper*, (6025).

Demirgüç-Kunt, A. and Levine, R. (1999). 'Financial structures across countries: Stylized facts', *Washington, DC: World Bank Policy Research Working Paper,* **2143**.

Demirgüç-Kunt, A., Beck, T. and Levine, R. (2007). 'Finance, inequality and poor.”', *Journal of Economic Growth,* pp. 27-49.

Demirguc-Kunt, A., Klapper, L., and Randall, D. (2014). Islamic finance and financial inclusion: measuring use of and demand for formal financial services among Muslim adults. *Review of Middle East Economics and Finance*, *10*(2), 177-218.

Demirgüç-Kunt, A., Klapper, L., Singer, D. and Van Oudheusden, P. (2015). ‘The Global Findex Database 2014: Measuring Financial Inclusion around the World’. *Policy Research Working Paper* 7255, World Bank, Washington, DC.

Denzin, N. K. (1994). *Lincoln YS Handbook of Qualitative Research*. Sage Publications, Inc.

Diamond, D., and Dybvig, P. (1983). Bank Runs, Deposit Insurance, and Liquidity. *Journal of Political Economy, 91*(3), 401-419. Retrieved from http://www.jstor.org/stable/1837095

Di Castri, S. and Gidvani, L. (2014). 'Enabling mobile money policies in Tanzania', *A “test and learn” approach to enabling market-led digital financial services.London: GSMA*,.

Dilek, S. and Çolakoglu, N. (2011). 'The relationship between income and consumption after global financial crisis', *China-USA Business Review,* **10**(12).

Dichter, T. W., and Harper, M. (Eds.). (2007). *What's wrong with microfinance?*. Rugby: Practical Action Publishing.

Donner, J. (2008). 'Research approaches to mobile use in the developing world: A review of the literature', *The information society,* **24**(3), pp. 140-159.

Donovan, K. (2012). 'Mobile money for financial inclusion', *Information and Communications for Development,* **61**, pp. 61-73.

Drake, D., and Rhyne, E. (Eds.). (2002). *The commercialization of microfinance: Balancing business and development* (pp. 101-114). Bloomfield, CT: Kumarian Press.

East, R. (1993). 'Investment decisions and the theory of planned behaviour', *Journal of Economic Psychology*, **14**(2), pp. 337-375.

Economides, N. and Jeziorski, P. (2015). 'Mobile Money in Tanzania', *Available at SSRN 2539984.*

Ekström, J. (2011). 'The phi-coefficient, the tetrachoric correlation coefficient, and the Pearson-Yule Debate', *Department of Statistics, UCLA.*

Elahi, A. (2008). 'Challenges of data collection in developing countries–The Pakistani experience as a way forward', *Statistical Journal of the IAOS,* **25**(1, 2), pp. 11-17.

Ellis, F. (2000). 'The determinants of rural livelihood diversification in developing countries', *Journal of Agricultural Economics,* **51**(2), pp. 289-302.

Estrada, G. B., Park, D. and Ramayandi, A. (2010). 'Financial development and economic growth in developing Asia', *Asian Development Bank Economics Working Paper,*(233).

Etzo, S. and Collender, G. (2010). 'The mobile phone ‘revolution’ in africa: Rhetoric or realty?’ *African affairs,* pp. adq045.

FAS. (2013). ‘Financial Access Survey’, International Monetary Fund. Data extracted from IMF Data warehouse 7 November 2014

FDIC. (2013). ‘2013 FDIC National Survey of Unbanked and Underbanked Households’. Federal Deposit Insurance Corporation, Available at https://www.fdic.gov/householdsurvey/2013report.pdf, Accessed 15 September 2015

Feldstein, M., and Bacchetta, P. (1991). National saving and international investment. In *National saving and economic performance* (pp. 201-226). University of Chicago press.

Fishbein, M. and Ajzen, I. (1975). 'Belief', *Attitude, Intention and Behaviour: An Introduction to Theory and Research Reading, MA: Addison-Wesley,* **6**.

Fole, A. G., Shimeles, A. and Zerfu, D. (2006). *Finance and Poverty in Ethiopia: A Household Level Analysis,* United Nations University, World Institute for Development Economics Research.

Fondeville, N., Özdemir, E. and Ward, T. (2010). 'Over-indebtedness: New evidence from the EU-SILC special module', *Research note,* (4).

Fletschner, D., and Kenney, L. (2014). Rural women's access to financial services: credit, savings, and insurance. In *Gender in agriculture* (pp. 187-208). Springer Netherlands.

FSAP (2003). 'Financial Sector Assessment Tanzania', World Bank-and IMF FSAP, took place 4-23 May, 2003, No. 26770

FSDK (2014). Kenya Financial Diaries Shilingi Kwa Shilingi—The Financial Lives of the Poor. *Nairobi: FSD Kenya, August. http://www. fsdkenya. org/pdf_ documents/14-08-08_Financial_Diaries_report. pdf.*

FSDT (2009). *The demand for and barriers to accessing financial services in Tanzania, FinScope survey 2009*, Financial Sector Deepening Trust Tanzania. Available at http://www.fsdt.or.tz/wp-content/uploads/2016/08/Download-FinScope-Summary-Report-2009-English-Version.pdf Accessed January to May 2014

FSDT (2013a). 'FinScope Tanzania 2013': Financial Sector Deepening Trust. Available at http://fsdt.linux.lilodesign.com/wp-content/uploads/2016/05/FinScope-Brochure-2013-Summary.pdf. Accessed 25 March 2016

FSDT (2013b), *FinScope survey data set*, Financial Sector Deepening Trust Tanzania, Available at http://www.fsdt.or.tz/finscope/en/library. Accessed 1 October 2014

FSDT (2014). 'FinScope 2013', Financial Sector Deepening Trust, Technical Report by Yakini Development Consulting July 2014.

Gale, W. G., Harris, B. H. and Levine, R. (2012). 'Raising household saving: Does financial education work', *Soc.Sec.Bull.*, **72**, pp. 39.

Galor, O. and Zeira, J. (1993). 'Income distribution and macroeconomics', *The review of economic studies*, **60**(1), pp. 35-52.

Gash, M. and Gray, B. (2014). Advancing Integrated Microfinance for Youth (AIM Youth) Financial Diaries Research Report. Freedom From Hunger.

Gaudecker, H. and Von, M. (2015). 'How does household portfolio diversification vary with financial literacy and financial advice?', *The Journal of Finance*, **70**(2), pp. 489-507.

Gilbert, N. (2001). 'Research, theory and method', *Researching social life*, **2**.

Gjertson, L. (2016). 'Emergency saving and household hardship', *Journal of Family and Economic Issues*, **37**(1), pp. 1-17.

Godin, G. and Kok, G. (1996). 'The theory of planned behaviour: a review of its applications to health-related behaviours', *American journal of health promotion,* **11**(2), pp. 87-98.

Goolsbee, A., Levitt, S. and Syverrson, C. (2013) *Microeconomics*. Macmillan Canada

Gopi, M. and Ramayah, T. (2007). 'Applicability of theory of planned behaviour in predicting intention to trade online: Some evidence from a developing country', *International Journal of Emerging Markets,* **2**(4), pp. 348-360.

Gorton, G. and Winton, A. (2003). 'Financial intermediation', *Handbook of the Economics of Finance,* **1**, pp. 431-552.

Granovetter, M. (2005). 'The impact of social structure on economic outcomes', *The Journal of economic perspectives,* **19**(1), pp. 33-50.

Greenwald, A. G., Pratkanis, A. R. and Breckler, S. J. (1989). *Attitude structure and function*, L. Erlbaum Associates.

Greenwood, J. and Jovanovic, B. (1990). 'Financial Development, Growth and the Distribution', *The Journal of Political Economy*, Vol. 98, No. 5, Part 1 (Oct., 1990), pp. 1076-1107

Greenwood, C. Wang, J.M. Sanchez (2010). 'Financing development: The role of information costs', *American Economic Review*, 100 pp. 1875–1891

Gu, J., Lee, S. and Suh, Y. (2009). 'Determinants of behavioural intention to mobile banking', *Expert Systems with Applications,* **36**(9), pp. 11605-11616.

Guérin, I., Morvant-Roux, S., and Servet, J. M. (2011). Understanding the diversity and complexity of demand for microfinance services: lessons from informal finance. *Handbook of Microfinance, World Scientific Publishing, Londres, Singapur*, 101-122.

Guiso, L., Sapienza, P., and Zingales, L. (2004). The role of social capital in financial development. *The American Economic Review*, *94*(3), 526-556.

Guiso, L., Sapienza, P., and Zingales, L. (2006). Does culture affect economic outcomes?. *The journal of economic perspectives*, *20*(2), 23-48.

Hagger, M. S., Chatzisarantis, N. L. and Biddle, S. J. (2002). 'A meta-analytic review of the theories of reasoned action and planned behaviour in physical activity: Predictive validity and the contribution of additional variables.' *Journal of Sport & Exercise Psychology,* **24**(1).

Hair Jr, J. F. (2005). 'Black, WC/Babin, BJ/Anderson, RE & Tatham, RL (2006): Multivariate Data Analysis', *Auflage, Upper Saddle River.*

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. (2010). 'Multivariate data analysis (7th Eds.)', *NY: Pearson.*

Hallpike, C. (1992). 'On primitive society and social evolution: A reply to Kuper', *Cambridge Anthropology,* pp. 80-84.

Hattam, C. (2006). 'Adopting organic agriculture: An investigation using the Theory of Planned Behaviour'. Poster presented at Intl. Assn of Agr. Econ. Conference, Gold Coast, Australia, .

Heckman, J. (1974). 'Life cycle consumption and labor supply: An explanation of the relationship between income and consumption over the life cycle', *The American Economic Review,* **64**(1), pp. 188-194.

Helms, B. (2006). Access for all: building inclusive financial systems. *Washington, DC, C-GAP*.

Herath, T. and Rao, H. R. (2009). 'Protection motivation and deterrence: a framework for security policy compliance in organisations', *European Journal of Information Systems,* **18**(2), pp. 106-125.

Honohan, P. (2008). 'Cross-country variation in household access to financial services', *Journal of Banking & Finance,* **32**(11), pp. 2493-2500.

Honohan, P. and King, M. (2012). 'Cause and effect of financial access: cross-country evidence from the Finscope surveys', *Banking the World: Empirical Foundations of Financial Inclusion,* pp. 45-84.

Hoyle, R. H. (1995). *Structural equation modeling: Concepts, issues, and applications,* Sage Publications.

Hox, J. and Bechger, T. (2011).'An Introduction to Structural Equation Modeling', *Family Science Review,* 11, 354-373.

Hu, L. and Bentler, P. M. (1999). 'Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives', *Structural equation modeling: a multidisciplinary journal,* **6**(1), pp. 1-55.

Huda, N., Rini, N., Mardoni, Y. and Putra, P. (2012). The Analysis of Attitudes, Subjective Norms, and Behavioral Control on Muzakki's Intention to Pay Zakah. *International Journal of Business and Social Science*, *3*(22).

Hulme, D. (2000). Is microdebt good for poor people? A note on the dark side of microfinance. *Small Enterprise Development, 11*(1), 26-28.

Hurmerinta-Peltomäki, L. and Nummela, N. (2006). 'Mixed methods in international business research: A value-added perspective', *Management International Review,* **46**(4), pp. 439-459.

Hyuha, M., Ndanshau, M. and Kipokola, J. P. (1993). *Scope, structure and policy implications of informal financial markets in Tanzania*, African Economic Research Consortium Nairobi, Kenya.

Ibrahim, M. E., and Alqaydi, F. R. (2013). Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE. *International Journal of Economics and Finance, 5*(7), 126.

Imboden, K. (2005). 'Building inclusive financial sectors: The road to growth and poverty reduction', *Journal of International Affairs*, pp. 65-86.

International Labor Office (2014). *World Social Protection Report 2014/15: Building Economic Recovery, Inclusive Development and... Social Justice*, Brookings Institution Press.

Isaac, J. (2014) Expanding Women's Access to Financial Services, World Bank, Project and Operations. Published on 26 April 2014 Available at http://www.worldbank.org/en/results/2013/04/01/banking-on-women-extending-womens-access-to-financial-services . Accessed 11 April 2015

Islam, T.(2016) Microcredit and Poverty Alleviation Taylor & Francis https://books.google.co.uk/books?id=geAGDAAAQBAJ Accessed January 2017

ITU-T (2013) The Mobile Money Revolution, Part 2: Financial Inclusion Enabler, ITU-T Technology Watch Report May 2013.

Ivatury, G. and Pickens, M. (2006). *Mobile phone banking and low-income customers: evidence from South Africa*, Consultative Group to Assist the Poor.

Jackson, D. L., Gillaspy Jr, J. A. and Purc-Stephenson, R. (2009). 'Reporting practices in confirmatory factor analysis: an overview and some recommendations.' *Psychological methods,* **14**(1), pp. 6.

Jihène, S. and Ghazi, B. (2013). 'The causality between income inequality and economic growth: Empirical evidence from the Middle East and North Africa region', *Asian Economic and Financial Review,* **3**(5), pp. 668.

Johnson, S. (2004). 'Gender norms in financial markets: Evidence from Kenya', *World Development,* **32**(8), pp. 1355-1374.

Johnson, S., Brown, G. and Fouillet, C. (2012). 'The search for inclusion in Kenya's financial landscape: the rift revealed', *A Report Commissioned by FSD Kenya, March,.*

Johnson, S. and Nino-Zarazua, M. (2011). 'Financial access and exclusion in Kenya and Uganda', *The Journal of Development Studies,* **47**(3), pp. 475-496.

Jones, H., Sakyi-Dawson, O., Harford, N. and Sey, A. (2016). *Linking formal and informal financial intermediaries in Ghana: Conditions for success and implications for RNR development,.*

Jöreskog, K. G. (1999). 'How large can a standardized coefficient be', *Unpublished Technical Report.Retrieved from: http://www.ssicentral.com/lisrel/techdocs/HowLargeCanaStandardizedCoefficientbe.pdf,.*

Karim, N., Tarazi, M., and Reille, X. (2008). FOCUS NOTE.

Kashuliza, A., Hella, J., Magayane, F. and Mvena, Z. (1998). 'The Role of Informal and Semi-formal finance in Poverty Alleviation in Tanzania: Results of a field study in two regions', *Research on Poverty Alleviation, Research Report,*(98.1), pp. 35-47.

Kempson, E., Perotti, V. and Scott, K. (2013). 'Measuring financial capability: a new instrument and results from low-and middle-income countries', *International Bank for Reconstruction and Development.World Bank.*

Kendall, Jake, Nataliya Mylenko, and Alejandro Ponce. "Measuring financial access around the world." (2010).

Kennedy, B. P. (2013). 'The Theory of Planned Behaviour and Financial Literacy: A Predictive Model for Credit Card Debt?', Theses, Dissertations and Capstones. Paper 480

Kenny D.A. (2015). 'Measuring Model Fit'. Available at http://davidakenny.net/cm/fit.htm Accessed February 2016

Keynes, J. M. (1936). 'The general theory of money, interest and employment', *Reprinted in the Collected Writings of John Maynard Keynes,* **7**.

Kibua, T. N. (2007). *Poverty Reduction Through Enhanced Access to Financial Services: Case Studies of Botswana, Kenya, and Namibia,* Institute of Policy Analysis and Research.

Kim, B. and Kenny, L. W. (2007). 'Explaining when developing countries liberalize their financial equity markets', *Journal of International Financial Markets, Institutions and Money*, **17**(4), pp. 387-402.

Kimbisa (2010). ‘Dar es Salaam Infrastructure Development Programme’. Dar es Salaam City Council, Dar es salaam, Tanzania.

Kimei, C. S. (1987). 'Tanzania's financial experience in the post-war period’, Unpublished Ph.D. dissertation, Uppsala

King, R. G. and Levine, R. (1993). 'Finance and growth: Schumpeter might be right', *The quarterly journal of economics*, pp. 717-737.

Kline, R. B. (2015). *Principles and practice of structural equation modeling*, Guilford publications.

Komba, A. (2010). ‘A study on integration of employment issues in development frameworks’. Ministry of Finance and Economic Affairs, Ministry of Labour, Employment and Youth, the United Republic of Tanzania. Development and International labour organization, January, 2010.

Kombe, W.J. and Kreibich, V. (2001). 'Informal land management in Tanzania and the misconception about its illegality'. ESF/N-Aerus Annual Workshop.“Coping with Informality and Illegality in Human Settlements in Developing Countries”, in Leuven and Brussels.

Koropp, C., Kellermanns, F. W., Grichnik, D. and Stanley, L. (2014). 'Financial Decision Making in Family Firms An Adaptation of the Theory of Planned Behaviour', *Family Business Review*, pp. 0894486514522483.

Kostov, P., Arun, T. and Annim, S. (2015). 'Access to financial services: The case of the ‘Mzansi’account in South Africa', *Review of Development Finance,* **5**(1), pp. 34-42.

Kostov, P., Arun, T. and Annim, S. (2014). 'Banking the unbanked: the Mzansi intervention in South Africa', *Indian Growth and Development Review,* **7**(2), pp. 118-141.

Kostov, P., Arun, T. and Annim, S. (2012). 'Determinants of access to finance: an investigation into the Mzansi intervention', *European Journal of Development Research*, **24**(3), pp. 397-412.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*, New Age International.

Kpodar, K. and Singh, R. J. (2011). 'Does financial structure matter for poverty? Evidence from developing countries', *Evidence from Developing Countries (December 1, 2011).World Bank Policy Research Working Paper Series, Vol,.*

Kuhl, J. (1985). 'Volitional mediators of cognition-behaviour consistency: Self-regulatory processes and action versus state orientation', *Action control*, pp. 101-128, Springer.

Kumar, A. (2005). *Access to financial services in Brazil*, World Bank Publications.

Kumar, L. and Mukhopadhyay, J.P.(2013. 'Patterns of Financial Behaviour among Rural and Urban Clients: Some Evidence from Tamil Nadu, India'. *IMTFI Working Paper* 2013-9

Kwa, A. (2001). 'Agriculture in Developing Countries: Which Way Forward? Small Farmers and the Need for Alternative, Development-Friendly Food Production Systems', *TRADE Occasional Paper,*(4).

Ladipo, P. K., Ighomereho, S. O., and Ganiyu, R. A. (2014). 'A Review and Integration of the Partial Models of Consumer Behaviour', *European Journal of Business and Management*, 6(6), 1-11.

Laepple, D. (2008). 'Farmer attitudes towards converting to organic farming'. Teagasc Organic Proaduction Research Conference Proceedings, (pp. 114-121), Teagasc, Ireland.

Last, M. and Kandel, A. (2001). 'Automated detection of outliers in real-world data'. Proceedings of the second international conference on intelligent technologies, (pp. 292-301).

Leedy, P. and Ormrod, J. (2010). 'Practical Research planning and design 9th edition Boston: Pearson Education International'.

Levine, R. (2005). 'Finance and growth: theory and evidence', *Handbook of economic growth*, **1**, pp. 865-934.

Levine, R. (1997). 'Financial development and economic growth: views and agenda', *Journal of economic literature,* **35**(2), pp. 688-726.

Levy, A. R., Polman, R. C. and Marchant, D. C. (2008). 'Examining the revised theory of planned behaviour for predicting exercise adherence: A preliminary prospective study', *Athletic Insight: The Online Journal of Sport Psychology,* **10**(3), pp. 42.

Lewin, K. M. (2009). 'Access to education in Sub-Saharan Africa: Patterns, problems and possibilities', *Comparative Education,* **45**(2), pp. 151-174.

Li, H. and Zou, H. (1998). 'Income inequality is not harmful for growth: theory and evidence', *Review of development economics,* **2**(3), pp. 318-334.

Lin, H. (2008). 'Predicting consumer intentions to shop online: An empirical test of competing theories', *Electronic Commerce Research and Applications,* **6**(4), pp. 433-442.

Littlefield, E., Morduch, J., and Hashemi, S. (2003). Is microfinance an effective strategy to reach the Millennium Development Goals?. *Focus note*, *24*(2003), 1-11.

Lucas, R. E. (1988). 'On the mechanics of economic development', *Journal of Monetary Economics,* **22**(1), pp. 3-42.

Lusardi, A. (2008). 'Household saving behaviour: The role of financial literacy, information, and financial education programs', *National Bureau of Economic Research*, No. w13824.

Lusardi, A. and Mitchell, O. S. (2011). 'Financial literacy and planning: Implications for retirement wellbeing', *National Bureau of Economic Research,* No. w17078.

Lusardi, A., and Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, *52*(1), 5-44.

Lusardi, A., Schneider, D. J. and Tufano, P. (2011). 'Financially fragile households: Evidence and implications', *National Bureau of Economic Research,* No. w17072.

Lwasa, S., Mugagga, F., Wahab, B., Simon, D., Connors, J., and Griffith, C. (2014). Urban and peri-urban agriculture and forestry: transcending poverty alleviation to climate change mitigation and adaptation. *Urban Climate*, *7*, 92-106.

Maleko, G. N., Liheta, B. S., Aikaruwa, D., Lukas, A., and Sumari, G. A. (2013). Women Participation in Microfinance Institutions of Tanzania: The Case of Savings and Credit Co-operative Societies (SACCOS). *Journal of Business Administration and Education*, *4*(2), 139.

Matin, I., Hulme, D., and Rutherford, S. (1999). Financial Services for the Poor and Poorest. *Deepening Understanding to Improve Provision. University of Manchester: Manchester, UK*.

Matsunaga, M. (2015). 'How to Factor-Analyze Your Data Right: Do's, Don'ts, and How-To's.', *International Journal of Psychological Research,* **3**(1), pp. 97-110.

Mayer, C., and Vives, X. (1995). *Capital markets and financial intermediation*. Cambridge University Press.

Mbuligwe, P. J. (2001). Groundwater modelling: Prediction of groundwater pollution by used motor oils from automobile repair garages in Dar es Salaam, Tanzania. Unpublished Masters of Scince Degree Thesis, Division of Land and Water Resources, Department of Civil and Environmental Engineering Royal Institute of Technology.

McDonald, R. P. and Ho, M. R. (2002). 'Principles and practice in reporting structural equation analyses.' *Psychological methods,* **7**(1), pp. 64.

Millar, J., and Glendinning, C. (1989). Gender and poverty. *Journal of Social Policy*, *18*(03), 363-381.

Mills, J. E. and Law, R. (2004). *Handbook of consumer behaviour, tourism, and the Internet*, Psychology Press.

Mitton, L. (2008). *Financial inclusion in the UK: Review of policy and practice*, Joseph Rowntree Foundation York.

Modigliani, F. (1966). 'The life cycle hypothesis of saving, the demand for wealth and the supply of capital', *Social Research*, pp. 160-217.

Modigliani, F. and Brumberg, R. (1954). 'Utility analysis and the consumption function: An interpretation of cross-section data', *Franco Modigliani,* **1**.

Mohamed, F. (2012). Gendered Poverty? Women's Perceptions of Money in Dar Es Salaam. *Journal of Business Diversity*, *12*(2), 131-136.

Mookerjee, R., and Kalipioni, P. (2010). Availability of financial services and income inequality: The evidence from many countries. *Emerging Markets Review*, *11*(4), 404-408.

Morduch, J. (1999). The microfinance promise. *Journal of economic literature*, *37*(4), 1569-1614.

Morduch, J. and Schneider, R. (2013). 'Spikes and dips: How income uncertainty affects households', *US Financial Diaries Issue Brief.New York: Financial Access Initiative at New York University,*

Mutaitina, O. R. (1999). 'Liberalisation of the Banking Industry in Tanzania: Issues and Prospect.', *African Journal of Finance and Management,* **7**(2), pp. 98-113.

Nachtigall, C., Kroehne, U., Funke, F. and Steyer, R.'Pros and Cons of Structural Equation Modeling', *Methods Psychological Research Online*, 8(2), 1-22

Narayan, D. (2002). Bonds and bridges: social capital and poverty. *Social capital and economic development: well-being in developing countries. Northampton, MA: Edward Elgar*, 58-81.

NBS (2014). ‘Statistical Abstract 2013’ *Tanzania National Bureau of Statistics*, Ministry of Finance, Tanzania, June 2014.

Newman, C., Tarp, F., Van den Broeck, K., Quang, C. T. and Khai, L. D. (2008). 'Household Savings in Vietnam: Insights from a 2006 rural household survey', *Vietnam Economic Management Review*, 34(1), 1-8.

Ngendakuriyo,F. (2014) ‘Determinants of Household savings Mobilization Across East African Countries ;An Exploratory Analysis’, *Policy Brief*, Financial Sector Development and Regionalization Project FSDRP(I), East African Community

Nezlek, J. B. (2012). *Diary Methods*, Sage.

Nunnally, J. (1978). *Psychometric methods*,. New York: McGraw-Hill

Nyerere, J. K. (1977). *The Arusha Declaration ten years after*, Tanzania President, Government Printer Dar es Salaam.

Odhiambo, N. (2005). 'Financial Development and Economic Growth in Tanzania: A Dynamic Casualty Test', *The African Finance Journal*, **7**(1), pp. 1-17.

Odhiambo, N. M. (2008). 'Financial depth, savings and economic growth in Kenya: A dynamic causal linkage', *Economic Modelling*, **25**(4), pp. 704-713.

OECD (2013a). Advancing National Strategies for Financial Education, A Joint Publication by

Russia’s G20 Presidency and the OECD.

OECD (2013b). ‘Overview of progress and policy challenges in Tanzania’, *in OECD Investment Policy Reviews: Tanzania 2013*, OECD Publishing. http://dx.doi.org/10.1787/9789264204348-6-en Accessed February 2015

Ormerod, P. and Smith, L. (2001). Social Networks and Access to Financial Services in the UK, working paper financed by the Britannia Building Society, as part of the Project on Social Exclusion from Financial Services.Osborne, J. W. (2008). *Best practices in quantitative methods*, Sage.

Osili, U. O. and Paulson, A. (2008). 'What can we learn about financial access from US immigrants? The role of country of origin institutions and immigrant beliefs', *The World Bank Economic Review,* **22**(3), pp. 431-455.

Ostry, J. D. and Berg, A. (2011). ‘Inequality and unsustainable growth: two sides of the same coin?’ *IMF Staff Discussion Note, SDN/11/08, Journal of Economic Literature, Classification* No. O1, O4

Ouellette, J. A. and Wood, W. (1998). 'Habit and intention in everyday life: the multiple processes by which past behaviour predicts future behaviour.’ *Psychological bulletin,* **124**(1), pp. 54.

Pagura, M., and Kirsten, M. (2006). Formal—informal financial linkages: lessons from developing countries. *Small Enterprise Development*, *17*(1), 16-29.

Pham, T. T. T., and Lensink, R. (2008). Household Borrowing in Vietnam A Comparative Study of Default Risks of Formal, Informal and Semi–formal Credit. *Journal of Emerging Market Finance*, *7*(3), 237-261.

Pande, R., Cole, S., Sivasankaran, A., Bastian, G. and Durlacher, K. (2012). 'Does poor people’s access to formal banking services raise their incomes?', *EPPI-Centre, Social Science Research Unit, Institute of Education, University of London.*http://www.hks.harvard.edu/var/ezp_site/storage/fckeditor/file/pdfs/centersprograms/centers/cid/publications/faculty/articles_papers/2012/BankingAccess2012Pa(TRUNCATED),.

Papademos, L. and Stark, J. (2010). *Enhancing monetary analysis*, Citeseer.

Patrick, H. T. (1966). 'Financial development and economic growth in underdeveloped countries', *Economic development and Cultural change,* **14**(2), pp. 174-189.

Pearl, J. (2000). 'Causal inference without counterfactuals: Comment', *Journal of the American Statistical Association,* **95**(450), pp. 428-431.

Pellegrino, J. W. and Hilton, M. L. (2013). *Education for life and work: Developing transferable knowledge and skills in the 21st century*, National Academies Press.

Perotti, V., Zottel, S., Iarossi, G. and Bolaji-Adio, A., (2013). Making sense of financial capability surveys around the world: a review of existing financial capability and literacy measurement instruments. *Washington DC, World Bank.*

Petrea, R. E. (2001). 'The theory of planned behaviour: use and application in targeting agricultural safety and health interventions', *Journal of Agricultural Safety and Health,* **7**(1), pp. 7.

Pickersgill, J. (1976). Soviet household saving behavior. *The Review of Economics and Statistics*, 139-147.

Popping, R. (2015). 'Analyzing open-ended questions by means of text analysis procedures', *Bulletin of Sociological Methodology/Bulletin de Méthodologie Sociologique,* **128**(1), pp. 23-39.

Prior, F. and Santomá, X. (2010). 'Banking the unbanked using prepaid platforms and mobile telephones in the United States', *Working Paper,* WP 839 IESE Business School,University of Navarra

Rankin, K. N. (2002). Social capital, microfinance, and the politics of development. *Feminist economics*, *8*(1), 1-24.

Razavi, T. (2001). 'Self-report measures: An overview of concerns and limitations of questionnaire use in occupational stress research', .

Reddy, D. L. S., Babu, B. R. and Govardhan, A. (2013). 'Outlier analysis of categorical data using navf', *Informatica Economica,* **17**(1), pp. 5. Redhead, K. (2008). *Personal finance and investments: a behavioural finance perspective,* Routledge.

Rhodes, R. E., Macdonald, H. M. and McKay, H. A. (2006). 'Predicting physical activity intention and behaviour among children in a longitudinal sample', *Social science and medicine,* **62**(12), pp. 3146-3156.

Rhyne, E. (2012) ‘Money Management, Financial Inclusion and Banking the Unbanked’. *Center for Financial Inclusion,* September, 2012

Ricciardi, V. (2008). The psychology of risk: The behavioral finance perspective. *Handbook of finance*.

Rivis, A. and Sheeran, P. (2003). 'Descriptive norms as an additional predictor in the theory of planned behaviour: A meta-analysis', *Current Psychology,* **22**(3), pp. 218-233.

Roberts, J. S. (1997). 'Comparative Validity of the Likert and Thurstone Approaches to Attitude Measurement.' Presentation, Annual Meeting of American Educational Research Association. Institute of Education Sciences, Washington , D.C., USA. Available at http: http://eric.ed. gov/?id=ED409328

Robinson, J. (1952). 'The Generalization of the General Theory”, In: the Rate of Interest and Other Essays, London: MacMillan.

Rojas-Suárez, L. and Gonzales, V. (2010). *Access to Financial Services in Emerging Powers: Facts, Obstacles and Policy Implications: Background Paper for the*

*Perspectives on Global Development 2010: Shifting Wealth*, OECD development centre.

Rousseau, P.L. (2002). *Historical perspectives on financial development and economic growth* (No. w9333). National Bureau of Economic Research.

Rubambey, G. C. (2005). Policy, Regulatory and Supervisory Environment for Microfinance in Tanzania. *Essays on Regulation and Supervision. Iris Centre. Washington, DC, CGAP*.

Rummel, R. J. (1979). 'Understanding conflict and war: Vol. 4: War, power, peace', *Beverly H ills: Sage.*

Russell, D. W. (2002). 'In search of underlying dimensions: The use (and abuse) of factor analysis in Personality and Social Psychology Bulletin', *Personality and Social Psychology Bulletin*, **28**(12), pp. 1629-1646.

Rutaihwa, J. L. (2013). 'Examining the Institutional Framework for Investment in Tanzania: A perspective from the Executive Opinion Survey, 2012-13'.

Rutherford, S. (2000). *The poor and their money* (pp. 6-7). New Delhi:: Oxford University Press.

Rutherford, L. and De Vaney, S. A. (2009). 'Utilizing the theory of planned behaviour to understand convenience use of credit cards', *Journal of Financial Counseling and Planning*, **20**(2).

Rutherford, S. (2003). 'Money talks: Conversations with poor households in Bangladesh about managing money', *Journal of Microfinance/ESR Review*, **5**(2), pp. 4.

Rutledge, S.L. (2010). Consumer protection and financial literacy: lessons from nine country studies. *World Bank Policy Research Working Paper Series, Vol.* June 2010.

Saqware, A. N. (2012). 'Micro insurance in Tanzania: Demand Perspectives'. Unpublished Ph.D Thesis, Lancashire Business School, University of Central Lancashire.

Saunders, M., and Lewis, P. (2012). *Doing research in business and management: An essential guide to planning your project*. Harlow, UK: Financial Times Prentice Hall.

Saunders, M. L., and Lewis, P. and Thornhill, A. (2009), *Research Methods for Business Students*. Financial Times Prentice Hall Inc., London.

Scarr, S. and Weinberg, R. A. (1978). 'The influence of family background on intellectual attainment', *American Sociological Review,* pp. 674-692.

Schizas, E. (2012). 'The Rise of Capital Markets in Emerging and Frontier Economies', *Association of Chartered Certified Accountants.Available at: http://www.accaglobal.com/content/dam/acca/global/PDF-technical/global-economy/pol-tp-rcm.pdf [accessed 24 November 2014].Mobilizing Private Sector Capital in Developing Countries,* **171**.

Schreiner, M. (2001). Informal finance and the design of microfinance. *Development in Practice*, 637-640.

Schultz, T. W. (1980). 'The economics of being poor', *Bulletin of the Atomic Scientists,* **36**(9), pp. 32-37.

Schumacker, R. E. and Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*, Psychology Press.

Segun, K. R. S., and Anjugam, M. (2013). Measuring the Efficiency of Sub-Saharan Africa's Microfinance Institutions and its Drivers. *Annals of Public and Cooperative Economics*, *84*(4), 399-422.

Seluhinga, N.S. (2013) ‘Determinants of the probability of obtaining formal financial services in Tanzania’ *Journal of Sustainable Development in Africa* Volume 15, No.2, (2013)

Sharifzadeh, M., Zamani, G. H., Khalili, D. and Karami, E. (2012). 'Agricultural climate information use: an application of the planned behaviour theory', *Journal of Agricultural Science and Technology,* **14**(3), pp. 479-492.

Sheeran, P., Orbell, S. and Trafimow, D. (1999). 'Does the temporal stability of behavioural intentions moderate intention-behaviour and past behaviour-future behaviour relations?', *Personality and Social Psychology Bulletin,* **25**(6), pp. 724-734.

Shefrin, H. (2002). *Beyond greed and fear: Understanding behavioral finance and the psychology of investing*. Oxford University Press on Demand.

Shefrin, H. M. and Thaler, R. H. (1988). 'The behavioural life-cycle hypothesis', *Economic inquiry*, **26**(4), pp. 609-643.

Shih, Y. and Fang, K. (2004). 'The use of a decomposed theory of planned behaviour to study Internet banking in Taiwan', *Internet Research,* **14**(3), pp. 213-223.

Shiller, R. J. (2003). From efficient markets theory to behavioral finance. *The Journal of Economic Perspectives*, *17*(1), 83-104.

Shisana, O., Rice, K., Zungu, N., and Zuma, K. (2010). Gender and poverty in South Africa in the era of HIV/AIDS: a quantitative study. *Journal of Women's Health*, *19*(1), 39-46.

Shugan, S. M. (2007). 'Editorial-causality, unintended consequences and deducing shared causes', *Marketing Science*, **26**(6), pp. 731-741.

Simon, H. A. (1972). 'Theories of bounded rationality', *Decision and organization*, **1**(1), pp. 161-176.

Skinner, B. (2014) *Science and Human Behaviour*, 2014 The B. F. Skinner Foundation, Previously Pearson Education, Inc. ct 1, 1988; 26, 4; Periodicals Archive Online p. 609

Sinha, F. (2005). 'Access, use and contribution of microfinance in India: Findings from a national study', *Economic and Political weekly*, pp. 1714-1719.

Sobel, M. E. (1996). 'An introduction to causal inference', *Sociological Methods & Research*, **24**(3), pp. 353-379.

Sommer, L. (2011). 'The theory of planned behaviour and the impact of past behaviour', *The International Business & Economics Research Journal*, **10**(1), pp. 91.

Soubbotina, T. P. (2004). *Beyond economic growth: An introduction to sustainable development*, World Bank Publications.

Soyibo, A. (1997). Financial liberalisation and bank restructuring in sub-saharan Africa: some lessons for sequencing and policy design. *Journal of African Economies*, *6*(1), 100-150.

Spitzer, H., Rwegoshora, H. and Mabeyo, Z. M. (2009). 'The (Missing) Social Protection for Older People in Tanzania', *A Comparative Study in Rural and Urban Areas.Feldkirchen/Dar es Salaam. (Forschungsbericht),*.

Stamp, S. (2009). *An exploratory analysis of financial difficulties among those living below the poverty line in Ireland*, Combat Poverty Agency.

Start, D. (2001). 'Rural diversification: What hope for the poor'. *ODI Meeting on Rural Development Food Security: Towards a New Agenda* (Vol. 16).

Statman, M. (2008). 'Countries and culture in behavioural finance'. CFA Institute Conference Proceedings Quarterly.

Statman, M. (2010). *What is behavioural finance?* Handbook of Finance, vol. II, chapter 9, edited by Frank J. Fabozzi (Hoboken, NJ: John Wiley & Sons, Inc.): 79–84.

Steel, W. F., Aryeetey, E., Hettige, H., and Nissanke, M. (1997). Informal financial markets under liberalization in four African countries. *World Development*, *25*(5), 817-830.

Steel, W. F. (2006). Extending Financial Systems to the poor: What strategies for Ghana. *7th ISSER-Merchant Bank Annual Economic Lectures, University of Ghana, Legon*.

Stuart, G., Ferguson, M. and Cohen, M. (2011). 'Cash In, Cash Out: Financial Transactions and Access to Finance in Malawi', *Washington, DC: Microfinance Opportunities, Assessing the Impact of Innovation Grants in Financial Services Project.*

Stulz, R. M., and Williamson, R. (2003). Culture, openness, and finance. *Journal of financial Economics*, *70*(3), 313-349.

Stutely, R. (2003). *Numbers guide*, Bloomberg Press, London.

Szelenyi, I. and Szelenyi, B. (1994). 'Why socialism failed: Toward a theory of system breakdown—Causes of disintegration of East European state socialism', *Theory and Society*, **23**(2), pp. 211-231.

Tabachnick, B. G. and Fidell, L. S. (2007). *Experimental designs using ANOVA*, Thomson/Brooks/Cole.

Tavakol, M. and Dennick, R. (2011). 'Making sense of Cronbach's alpha', *International journal of medical education,* **2**, pp. 53.

TCRA. (2008) 'Tanzania Telecommunications Quarterly Telecom Statistics as at 31 December 2008', Available at http://www.tcra.go.tz/index.php/quarterly-telecommunications-statistics, Access 20 December 2014

TCRA. (2014), 'Tanzania Telecommunications Quarterly Telecom Statistics, Quarter as at 30 March 2014', Tanzania Communication Regulatory Agency. Dar es Salaam, Tanzania, Available at https://www.tcra.go.tz/index.php/quarterly-telecommunications-statistics Accessed 15 November 15 2014

Telles, E. E. (1992). 'Who gets formal sector jobs? Determinants of formal-informal participation in Brazilian metropolitan areas', *Work and Occupations*, **19**(2), pp. 108-127.

Thaler, R. H. and Shefrin, H. M. (1981). 'An economic theory of self-control', *The Journal of Political Economy*, pp. 392-406.

Thorpe, A., Reid, C., Van Anrooy, R., and Brugere, C. (2004). African poverty reduction strategy programmes and the fisheries sector: current situation and opportunities. *African development review*, *16*(2), 328-362.

TIRA (2010) Annual Insurance Market Performance Report for the year Ended 31st December 2010, Dar es Salaam Tanzania.

Tsai, L. C. (2014). "' I will help as much as I can, but I can't give them everything:" The Financial Lives of Women Who Were Formerly Trafficked into Sex Work in the Philippines' . Ph.D Thesis, Graduate School of Arts and Sciences, Columbia University.

Umuhire, P. (2013). *Informal Finance and Formal Microfinance: The Rationale of their Coexistence in the Context of Urban African Financial MarketsMarkets*, Presses universitaires de Louvain.

URT. (2000).'National microfinance policy 2000', Ministry of Finance, Dar es Salaam, Tanzania Government printer

URT. (2006). 'United Republic of Tanzania, National Strategy for Growth and Reduction of Poverty, Vice President's office', *IMF Country Report* No. 06/142

URT. (2010). 'United Republic of Tanzania, National Strategy for Growth and Reduction of Poverty, Ministry of Finance and Economic Affairs'. *IMF Country Report* No. 11/17

URT(2014) National Panel Survey Wave 3 2012-2013**,** National Bureau of Statistics Ministry of Finance Dar es Salaam**.**

Usher, A. and Medow, J. (2010). 'Global higher education rankings 2010', *Higher Education Strategy Associates,* pp. 30.

Usher, P. J., Duhaime, G. and Searles, E. (2003). 'The household as an economic unit in Arctic Aboriginal communities, and its measurement by means of a comprehensive survey', *Social Indicators Research,* **61**(2), pp. 175-202.

Vallerand, R. J., Deshaies, P., Cuerrier, J., Pelletier, L. G. and Mongeau, C. (1992). 'Ajzen and Fishbein's theory of reasoned action as applied to moral behaviour: A confirmatory analysis.' *Journal of personality and social psychology,* **62**(1), pp. 98.

Varian, H. R. (1993). *What use is economic theory?*, Department of Economics, University of Michigan.

Viñals, J. and Sayeh, A. (2010). ‘Financial System Stability Assessment update: Prepared by the Monetary and Capital Markets and African Departments’ International Monetary Fund, IMF country report No. 10/177

Von de Lippe, H. (2010). 'Motivation and selection processes in a biographical transition: a psychological mixed methods study on the transition into fatherhood', *Journal of Mixed Methods Research,*.

Von Hase, F. (2013). 'Facilitating Conservation Agriculture in Namibia through understanding farmers’ planned behaviour and decision making', Master's Thesis in Agricultural Science, Swedish University of Agricultural Science.

Wachira, M. I. and Kihiu, E. N. (2012). 'Impact of financial literacy on access to financial services in Kenya', *International Journal of Business and Social Science,* **3**(19).

Wang, Y., Lin, H. and Luarn, P. (2006). 'Predicting consumer intention to use mobile service', *Information systems journal*, **16**(2), pp. 157-179.

Wangwe, S. M. (1999). 'Micro and Small Enterprises Development and Employment Implications: Review of Current Status and Prospects', *Economic and Social Research Foundation (ESRF),*.

Weisburd, D. and Britt, C. (2007). *Statistics in criminal justice*, Springer Science & Business Media.

World Bank (2014a). ‘World Development Indicators 2014’. World Development Indicators: Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/18237 License: CC BY 3.0 IGO.

World Bank. (2014b) ‘Global Financial Development Database (GFDD), World Bank. Updated 17 November 2013. Available at http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTGLOBALFINREPORT/0,,contentMDK:23492070~pagePK:64168182~piPK:64168060~theSitePK:8816097,00.htm. Accessed 15 November 2014

World Bank (2014c) Global survey on consumer protection and financial literacy: Oversight frameworks and practices in 114 Economies, International Bank for Reconstruction and Development, Washington DC.

World Bank (nd). Financial Education Programs and Strategies: Approaches and Available Resources, World Bank. Available at http://responsiblefinance.worldbank.org/~/media/GIAWB/FL/Documents/Publications/Financial-Education-Programs-and-Strategies.pdf, Accessed 14 September 2016

Xu, L. and Zia, B. (2012). 'Financial literacy around the world: an overview of the evidence with practical suggestions for the way forward', *World Bank Policy Research Working Paper*,(6107).

Yong, A. G. and Pearce, S. (2013). 'A beginner’s guide to factor analysis: Focusing on exploratory factor analysis', *Tutorials in Quantitative Methods for Psychology*, **9**(2), pp. 79-94.

Yueh, L. (2006). 'Parental investment in children's human capital in urban China', *Applied Economics,* **38**(18), pp. 2089-2111.

Zaman, H. (1999). Assessing the poverty and vulnerability impact of micro-credit in Bangladesh: A case study of BRAC.

Zaman, H. (2004). *The scaling-up of microfinance in Bangladesh: determinants, impact, and lessons*, World Bank Publications.

Zeller, M. (1999). *Towards enhancing the role of microfinance for safety nets of the poor*, Zentrum für Entwicklungsforschung, Center for Development Research, Universität Bonn.

Zeller, M., and Meyer, R. L. (Eds.). (2002). *The triangle of microfinance: Financial sustainability, outreach, and impact*. Intl Food Policy Res Inst.

Zheng, Z. and Pavlou, P. A. (2010). 'Research note-toward a causal interpretation from observational data: A new bayesian networks method for structural models with latent variables', *Information Systems Research,* **21**(2), pp. 365-391.

# APPENDICES

## Appendix A: Survey Questionnaire

### SMALL SURVEY QUESTIONNAIRE, FINANCIAL EXPERIENCE AND USE OF FINANCIAL SERVICES

My name is Bupe Mwakyusa. I am a PhD research student at the University of Central Lancashire, in the Lancashire Business School. I am undertaking research project titled ‘Determinants of use of financial services in Tanzania’ under the supervisory team led by Professor Arun Thankom and Dr. Philip Kostov. The research seeks to understand the financial experience of households and the role household financial behavior in the use of financial services in Tanzania. The research study is considered to be important for the contribution to the knowledge about household financial experience and use of financial services. Additionally, the study is important for the improvement in the financial policy initiatives. In order to effectively conduct this research, I collect information concerning financial experience and use of financial services. Therefore, I would like to invite you to voluntary participate into this research. I will ask you questions about your household characteristics, your income and expenditure, financial instruments you use, your intention to use financial services and your practice in financial decision making. The information I collect from you and other respondents will be combined and analyzed to produce a PhD Thesis. Rest assured that, the information you provide will be kept confidential unless you allow disclosure. I would also request you to be honest in responding to the questions revealing your experience and opinion.

Respondent Consent: Do you agree to be participate in the research: Yes/No
If Yes: Please respond to the questions outlined in this document.
If No: End of the Session

Respondent ID..........................................……………………………………….......................................
Location;……………………………….........................…………………..……………………………….

SECTION A: Household Demographics

I would like to get information about your household. By household I mean people living in the same house/place sharing income and expenditure. Household member is defined as person who has lived in the household for the past six months, and, or a person who expect to live in the household for next six months. In the household, there is a person who takes care for the household expenditure; such person is referred to as the head of household. Therefore I will collect the information about the head of household and other household members.

| A1. Head of Household - general information; | | | | | |
|---|---|---|---|---|---|
| **1.1** | Age ______________________ | | | Are you the head of household? 1. Yes 2. No | |
| **1.2** | Gender | Male<br>Female | **1.6** | Do you belong to any religion? | 1. Yes 2. No |
| **1.3** | Marital Status | Married<br>Never married<br>Divorced<br>Widowed<br>Separated<br>Come we stay relationship<br>Don't know | **1.7** | Employment | Employed formal<br>Employed informal<br>Self-employed (registered)<br>Self-employed(unregistered)<br>Student<br>Retired<br>Unemployed |
| **1.4** | Highest Education level | None<br>Primary<br>Post primary training<br>Secondary education<br>Post-secondary training<br>Advanced Secondary education<br>Diploma<br>Degree or Equivalent | **1.8** | Income Frequency | Daily<br>Weekly<br>Monthly<br>Yearly<br>Any other specify_______________ |
| **1.9** | How many rooms does your household have? | One<br>Two<br>Three<br>Four<br>More than four | **1.13** | Do live in owned/ rented house? | Owned<br>Rented<br>Any other specify_______________ |
| **1.10** | *Interviewer* | Bad | **1.14** | Do you own any house or | Yes 2. No |

| | | | | | |
|---|---|---|---|---|---|
| | *evaluate the condition of the house* | Fair<br>Good<br>Very good | | land? | *If Yes* what do you own 1. House 2. Land<br>What is its/their value in Tsh.________ |
| **1.11** | How long have they lived in the premises ________ | | **1.15** | Total Number of Person in the household (in numbers)__________________ | |
| **1.12** | Your Domicile Region ______________________ | | **1.16** | *If* the respondent are not the head of household what is your the relationship with head of household? ______________________ | |

| **A2. Household members demographic information**<br>In this section we would like get information about all your household members. | | | | | | |
|---|---|---|---|---|---|---|
| **S/No.** | **2.1** Name of household member | **2.2** Age in years | **2.3** Gender<br>Male<br>Female | **2.4** Education level<br>Non<br>Primary<br>Post primary training<br>Secondary<br>Post-Secondary<br>Graduate | **2.5** Employment<br>Employed formal<br>Employed informal<br>Self-employed -registered<br>Self-employed -unregistered<br>Student<br>Retired<br>Unemployed<br>Other please specify________ | **2.6** Relationship to the head of household<br>Household head<br>Daughter<br>Son<br>Mother<br>father<br>Spouse/partner<br>Other person/ specify |
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |

**A3. Asset Ownership**

In this section I would like to get information on assets owned by household. Additionally, I would ask you to provide the source of money used to by the respective asset. The options of sources of funding has been place in the last column of the table.

| Code | Would you please indicate the assets that are held by your household? *(please check 3.1)* | **3.1** *Please check appropriate* | **3.2** Quantity (*please write the number of items in the spaces provided)* | **3.3** Current Resale value in Tsh *( Total of each item category)* | **3.4** Source of fund used to purchase the item | *Options for Source of fund (question 3.4)* |
|---|---|---|---|---|---|---|
| | **Domestic appliances** | | | | | Savings<br>Wage/Salary<br>Sale of assets<br>Gift/Inheritance/ other<br>Friends/relative loan<br>Bank loan/other formal |
| **a** | TV | | | | | |
| **b** | CD/DVD player | | | | | |
| **c** | Radio/ Cassette | | | | | |
| **d** | PC/ Laptop | | | | | |
| **e** | Refrigerator | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **f** | Gas stove | | | | | financial institution<br>SACCOS<br>ROSCA/SHG<br>MFI loan<br>Loan from employer<br>Leasehold/credit purchase<br>Any Other specify_____________<br>99. Don't know |
| **g** | Fan | | | | | |
| **h** | Kerosene stove | | | | | |
| **i** | Charcoal stove | | | | | |
| **j** | Other stove (specify) | | | | | |
| **k** | Kettle/ heater | | | | | |
| **l** | Microwave | | | | | |
| | **Furniture** | | | | | |
| **a** | Coaches/ sofa set | | | | | |
| **b** | Dining table set | | | | | |
| **c** | Table chairs | | | | | |
| **d** | Bed (including mattress) | | | | | |
| **e** | Wardrobe | | | | | |
| **f** | Cupboard | | | | | |
| | **Communication Accessories** | | | | | |
| **a** | Landline | | | | | |
| **b** | Cell phone | | | | | |
| **c** | Post Box | | | | | |
| | **Transport/ Agricultural equipment's** | | | | | |
| **a** | Motor vehicle ( car, bus, lorry, Bajaj) | | | | | |
| **b** | Motorcycle | | | | | |
| **c** | Bicycle | | | | | |
| **d** | Tractors | | | | | |
| **e** | Others specify | | | | | |
| | **Immovable Properties** | | | | | |
| **a** | Land (in acres/ foot) | | | | | |
| **b** | House | | | | | |
| **c** | Site | | | | | |
| | **Livestock** | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **a** | cattle | | | | | |
| **b** | goats | | | | | |
| **c** | Poultry | | | | | |
| **d** | Pigs | | | | | |
| **e** | Others specify | | | | | |
| | **Other items** | | | | | |
| **a** | Sewing Machine | | | | | |
| **b** | Washing machine | | | | | |
| **c** | Water Tank | | | | | |
| **d** | Jewellery (grams of gold) | | | | | |
| **e** | Other please specify_____________ | | | | | |

SECTION B: Income Generating Activities/ sources of income

In this section, we would like to get information about income generating activities and related attributes. This is about the sector and kind of activities you are engaged with in order to earn income.

**4.6** What was the motive behind the choice of engaging into a particular main source of income?

| | *B1*. Which is your income generating activity? *( Identify all income generating activities you engage with, tick the appropriate )* | **4.1** Response | | **4.2** Nature of the activity Temporary Permanent Seasonal *( indicate by corresponding number)* | **4.3** What is the main Source (*please tick the appropriate*) | **4.4**Frequency of Income 1.Daily 2.Weekly 4.Monthly 5.Seasonal,specify | **4.5** Average Income per month in Tsh. |
|---|---|---|---|---|---|---|---|
| | **Wage** | | | | | | |
| **a** | Permanent | 1.Yes | 2.No | | | | |
| **b** | Temporary | 1.Yes | 2.No | | | | |
| | **Self-employment** | | | | | | |
| **c** | Trading Activities other than selling self-produced agricultural goods | 1.Yes | 2.No | | | | |
| **d** | Service provision ( renting house, car, and other equipment) | 1.Yes | 2.No | | | | |
| **e** | Production activities (excluding agricultural goods) | 1.Yes | 2.No | | | | |
| | **Agriculture ( Income generating only**) | | | | | | |
| **f** | Agricultural production( crops, fruits, vegetables, and processing) | 1.Yes | 2.No | | | | |
| **g** | Livestock breeding( poultry, selling meat, milk, eggs) | 1.Yes | 2.No | | | | |
| | **Others** | 1.Yes | 2.No | | | | |
| **h** | Pension | 1.Yes | 2.No | | | | |
| **i** | Money received from somebody/ relative | 1.Yes | 2.No | | | | |
| | **Any other please specify** | | | | | | |

1.______________________________________2.___________________________________________3.________________________________

**4.7** Do you enjoy engaging in the specified main income generating activity? *(Please refer to your main income generating activity in answer to question 4.3)*

Not enjoyable at all

Somehow not enjoyable

Somehow enjoyable

Very enjoyable

**4.8** *If* you engage in more than one income generating activity, please explain any three factors/reasons that motivated your decision.

1.____________________________________2___________________________________________4.______________________________________

**4.9** Are you satisfied with the income you earn from all sources all together?

Very dissatisfied

Somehow dissatisfied

Somehow satisfied

Very Satisfied

**4.10** In the period of 12 months, did any member of the family other than head of the household engaged in income generating activities? *If No proceed to B2*

| S/N | **a)**Household name/code | **b)**Household member relationship to the Household Head | **c)**Income generating activity *(choose relevant activity from B1)* | **d)**Nature of the activity<br>Temporary<br>Permanent<br>Seasonal | **e)**Frequency of Income<br>1.Daily<br>2.Weekly<br>4.Monthly<br>5.Seasonal,specify<br>6. Other, please specify_____ | **f)**Average Income per month in Tsh. |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

| **B2. Remittance from friend/ family outside the household**<br>I would like to get information if you do receive financial support from people outside the household, (eg friends, relatives who are not living with you in the same house) | | ***Options for 4.13***<br>1. Spouse<br>2. son<br>3. Daughter<br>4. Brother<br>5. Sister<br>6. Mother |
|---|---|---|
| **4.11** Do you receive any financial support from people outside your household? | 1. Yes 2. No<br>*If No*, proceed to Section C | |
| **4.12** In the past 12 months have received any of such financial support? | 1. Yes 2. No | |
| **4.13** What is the relation of the person to the household head?*( see options for* | | |

| | | |
|---|---|---|
| *4.13)* | | 7. Father<br>8..Brother in-law<br>9. Sister in-law<br>10.Any other specify_____________<br>*Options for 4.17*<br>Employed formal<br>Employed informal<br>Self-employed –registered<br>Self-employed –unregistered<br>Student<br>Retired<br>Unemployed<br>Other please specify_______ |
| **4.14** How often do you receive such financial assistance | 1. Daily<br>2. Weekly<br>3. Monthly<br>4. Any other specify_____ | |
| **4.15** In what form do you receive such support? | 1. Cash<br>2. In kind | |
| **4.16** How is the payment made? *( see options for 5.13)* | | |
| **4.17** How much do you receive? (can be the last amount that was given/or average) in Tsh. | _____________________ | |
| **4.18** What is the source of income of the sender? | | |

SECTION C: Consumption/Expenditure

In this section I will ask you about how you spend your money. This will include your daily, monthly and yearly consumption and expenditure. I once again reassure you that the information you provide will kept confidential.

What are 5 major expenses on which household spend their money? (Include amount spent for each category)

| **S/No** | **5.1** What are 5 major expenses on which household spend their money*?(any consumption of income your, may include the following)* | **5.2** Frequency of expenditure | **5.3** Amount spent *(corresponding frequency of expenditure) e.g. daily then the amount spent should be given on daily basis.* | **5.4** Which item you most frequently use your income to spend on? *(Please rank the most frequently item by 1 through five the least frequent item)* | **5.5**Which item in your expenditure is given highest priority when you receive your income? *(please rank in the order of priority given, 1 for the highly prioritised through 5 for the low* | Why is it given priority (Explain reasons for the given priority) |
|---|---|---|---|---|---|---|
| | 1.Family Food<br>2.Education H/H, Spouse/Child<br>3.Start Business<br>4.Continuing business<br>5.Investment ( Land, sight)<br>6. Taking care of dependants<br>7. Taking care of health<br>8. Household products (utensils, )<br>9. Contributing to ceremonies<br>10. Transport to work<br>11. Participating in charity activities | 1. daily<br>2.weekly<br>3. Monthly<br>4.Yearly<br>5. Other specify___<br><br>*(Please indicate the respective number/nam e of your* | | | | _______________________<br>_______________________<br>_______________________<br>_______________________<br>_______________________<br>_______________________ |

| | | | | | | |
|---|---|---|---|---|---|---|
| | 12. Water bills<br>13. Electricity bills<br>14. Shoe and clothing<br>15. Phone bills<br>17. Saving<br>16 other please specify_____________ | *option in the spaces provided)* | | | *priority)* | |
| **1** | | | | | | |
| **2** | | | | | | |
| **3** | | | | | | |
| **4** | | | | | | |
| **5** | | | | | | |

**5.7** Do you financially support any person out your household members?
Yes 2. No
*If No, proceed to Section D*

| S/No | **5.8** Who are they to you<br>Child<br>Brother/Sister<br>Parent/s<br>Any other specify_____<br>*(Please list them below)* | **5.9** How do you support?<br>1. In- kind<br>2. Cash | **5.10** How Much do you support in terms of financial value | **5.11** How often do you support<br>Daily<br>Weekly<br>Monthly<br>Yearly<br>other please specify_____ | **5.12** Where do they live<br>Within the city<br>Up country<br>Other please specify_____ | **5.13** How do they reach the supported? | ***Options for 5.13***<br>Personal delivery<br>Bank account<br>Bank check<br>Bank transfer<br>Money transfer agents<br>Mobile Money<br>Post office<br>Other please specify_____ |
|---|---|---|---|---|---|---|---|
| **1** | | | | | | | |
| **2** | | | | | | | |
| **3** | | | | | | | |

SECTION D: Financial challenges and financial responsibility

| S/No | **6.0** Do you face any financial challenge relating to your income and spending? *(Please cycle what is appropriate you in the following options).*<br>1.Yes<br>2. No | What are that financial challenges facing the household?<br>*( list any three or more financial challenges your facing)* | Does it relate to deficit/shortage of income?<br>Yes<br>No<br>Other please specify_____<br>*(Please indicate the source of financial challenge corresponding to the actual challenge in the spaces provided*) | **6.3** What is the origin of financial challenge<br>Lack of job<br>Season job<br>Temporary job<br>Redundancy<br>Very low income<br>Insufficient income<br>Taking care of extended family/dependants<br>Increase in price of goods and services<br>Lack of financial education<br>Lack of planning<br>Other specify________ | ***Options for 6.1***<br>Difficult to make end meet<br>Difficult to pay for water bills<br>Difficult to pay electricity bills<br>Difficult to pay house rent<br>Difficult to pay debt<br>Difficult to pay tuition fee and other education necessity for primary education<br>Difficult to pay tuition fee and other education necessity for secondary education<br>Difficult to pay tuition fee and other education necessity for post-secondary education<br>Difficult to take care of clothing<br>Not being able to take care of unforeseen events<br>Not being able to invest<br>Other please specify________ |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |
| 5 | | | | | |

7.0 What are important financial events that have occurred in your family for the last 12 Months?

| **Event** | **7.1**Respon se<br>*(Y for yes,* | **7.3** How often?<br>1. monthly | **7.4** Who took financial | **7.5** How was the event addressed/ Financial | **Options for 7.4**<br>Head of Household<br>Spouse |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| | *N for No*) | 2. semi annually<br>3. Annually<br>4. Please specify_____ | responsibility on the event | strategy | Any other specify_________<br>**Options for 7.5**<br>Saving<br>Sale of asset<br>Gift/ inheritance<br>Bank loan<br>Friend/relative loan<br>Friend/relative help<br>ROSCA/SHG<br>SACCOS<br>MFI loan<br>Loan from employer<br>Other please specify________ |
| Birth | **Y N** | | | | |
| Wedding/Marriage-including daughter/son | **Y N** | | | | |
| Taking child to school | **Y N** | | | | |
| Death of working adult | **Y N** | | | | |
| Death household member | **Y N** | | | | |
| Death of family member outside household | **Y N** | | | | |
| Illness/ Injuries | **Y N** | | | | |
| Accidents /Fire destruction | **Y N** | | | | |
| Loss of job | **Y N** | | | | |
| Business failure/bankruptcy | **Y N** | | | | |
| Failure to harvest | **Y N** | | | | |
| Theft of household property | **Y N** | | | | |
| Abandonment /separation/Divorce | **Y N** | | | | |
| Other please specify___________________ | | | | | |

| | | |
|---|---|---|
| **7.6** | Is the person assumed to be the head of household responsible for all household financial activities? 1. Yes 2. No *If yes proceed to 7.8*<br>**7.6 b** *If no why not* ______________________________________________ | |
| **7.7** | Which household member is responsible for household financial activities? 1. Spouse 2. Son 3. Daughter 4. Other please specify__________ | |
| | **Please rank financial responsibility you hold in the following statements** | **Strongly disagree ⟷ Strongly agree** |
| **7.8** | I am responsible for household budget and managing household income | 1 : 2 : 3 : 4 : 5 |
| **7.9** | I pay monthly bills which include ( e.g. house rent, electricity, water, etc) | 1 : 2 : 3 : 4 : 5 |
| **7.10** | I make shopping for household goods and groceries | 1 : 2 : 3 : 4 : 5 |
| **7.11** | I make decision on saving and investment | 1 : 2 : 3 : 4 : 5 |
| **7.12** | I do budget for income and expenditure | 1 : 2 : 3 : 4 : 5 |
| **7.13** | My household shares household budget and income management | 1 : 2 : 3 : 4 : 5 |

SECTION E: Financial strategies

In this section I am going to ask you about financial instruments and strategies you use in managing and smoothing your financial life. They include such information as use of financial services offered by formal financial institutions and other financial strategies acquired out of the formal financial sector.

**E1. Holding of Bank account**

Does anyone in the household currently have bank account? 1.Yes 2.No

*If No, proceed to 8.7; If Yes continue to 8.1 through 8.6, then 8.14*

| S/N | Name | **8.1** Which household member has a bank account?<br>Household head<br>Spouse<br>Son<br>Daughter<br>Any other specify | **8.2** What kind of account do they hold<br>1. Saving<br>2. Current<br>3. Any other specify__________ | **8.3** Type of financial institution<br>Bank<br>Non-bank financial institution<br>Formal microfinance<br>Other specify | **8.4** For how long the account has been held<br>1. less or equal 6months<br>2. More than 6 Months | **8.5** For what purpose do you use such account | **8.6** How frequent do you use such account per<br>Week<br>Month<br>quarter<br>year<br>Any others specify<br>*Eg. 3 times per week* |
|---|---|---|---|---|---|---|---|
| **1** | | | | | | | |
| **2** | | | | | | | |
| **3** | | | | | | | |
| **4** | | | | | | | |
| **5** | | | | | | | |
| ***Options for 8.5***– 1.Precautionary 2. Foresight (education, purchase of land/house/equipment, investment wedding) 3. Earning income (interest) 4. To access credit 4. Facilitate money transfer 5. Accumulate capital for starting business 6. Accumulating money for boosting continuing business 8. For superiority 8. Personal satisfaction 9.Transaction motive 10. Any other specify_____________ | | | | | | | |

*If no* one in household has a bank account why not?

1.__________________________________________________2.____________________________________________3.____________________

In the next 12 months, do you intend to use any financial service? 1. Yes 2. No *(If no, go to 8.11)*

*If yes to 8.8,* what service do you intend to use? *(can be more than one, list in the order of priority)*

1______________________________2.______________________________________3_______________________________________________

What are motivations behind your intention to use financial services?

1. ______________________________________2.________________________________3.________________________*(proceed to **8.14**)*

**8.11**. What is the most important thing that would enable you use financial services?__________________________________________________
_____________________________________________________________________________________________

*If no to 8.8,* do you think if there could be improvement in financial services you would intend to use financial services in the future?

1. Yes 2.No

What improvement do you recommend financial services to attract you to intend to use financial services in the future?

1. Removal or reduction of minimum account opening amount
2. Reduction/Removal of maintenance fee
3. Having nearby financial service centre
4. Not sure of what should be done
5. Other please specify________________________________________________________________________

**8.14** Is there any household member who previously had a bank account but no longer has it? 1. Yes 2.No

*If yes, go to 8.14, if no go to 9.1*

| S/N | **8.14** Name/code of Household member | **8.15** Which household member previously had an account?<br>Household head<br>Spouse<br>Son<br>Daughter<br>Any other specify | **8.16** What type of account<br>1. Saving<br>2. Current<br>3. Any other specify___________ | **8.17** Why did s/he open such account<br>1. Precautionary<br>2. Foresight (education, purchase of land/house/equipment, investment wedding)<br>3. Earning income (interest)<br>4. To access credit<br>5. Facilitate money transfer<br>6. Accumulate capital for starting business<br>7. Accumulating money for boosting continuing business<br>8. For superiority 8. Personal satisfaction<br>9. Transaction motive 10. Any other specify____________ | **8.18** Why did s/he stopped/closed the account |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |

**E2. Savings social groups**

| S/No | Does anyone in household belong to any savings group?<br>1. Yes 2. No<br><br>*If no, go to 10.1* | **9.2** Name/ Code No. | Which Household member? *(see options 8.1)* | What kind of savings group do you belong?<br>*( please describe the kind of saving group)*<br>Self Help Group<br>VICOBA<br>SACCOS<br>Any other, please Specify______ | **9.4** Why particular savings group?<br>*(please outline the any reasons for belong to the group)*<br>*1. improve my wellbeing*<br>*2. Help each other*<br>*3. For social network*<br>*4. Sharing life experience*<br>*5. Other please specify__________* | **9.5** For what purpose do you save? *(See options for 8.5)* | **9.6** How frequent do you save?<br>1. Daily<br>2. Weekly<br>3. Monthly<br>4. Any other specify_____ | **9.10** *If no*, Why don't you belong to any saving group?<br>1. Don't have money<br>2. Not available<br>3.Too far away<br>4.Not interested<br>5. People are dishonest<br>6. other specify______ |
|---|---|---|---|---|---|---|---|---|
| **1** | | | | | | | | |
| **2** | | | | | | | | |
| **3** | | | | | | | | |
| **4** | | | | | | | | |

**E3. Saving in Person at home**

| S/No | **10.1** Is there any household member saving money at home?<br>1. Yes 2. No<br><br>*If no, go to 10.7* | **10.2** Which Household member *(See options 8.1, can be more than one, outline below)* | **10.3** What tool does s/he use to keep money?<br>1. Under the mattress<br>2. kibubu*( pot)*<br>*3. Other please specify____* | **10.4** Why does s/he save? *(see options 8.5)* | **10.5** How frequently does s/he save?<br>1. Daily<br>2. Weekly<br>3. Monthly<br>4. Any other specify_______ | **10.6** How much is saved in the given frequency/ (amount in Tsh.) | **10.7** why not save at home?<br>1. Don't have money to save<br>2.Will be stolen by household member<br>3.Will be stolen by outsider<br>4. I may be attempted to Spend<br>4.Other specify___________ | **10.8** Do you use any other forms of saving?<br>Mobile money services<br>Saving in Kind<br>Any other specify___ |
|---|---|---|---|---|---|---|---|---|
| **1** | | | | | | | | |
| **2** | | | | | | | | |
| **3** | | | | | | | | |
| **4** | | | | | | | | |

**E4. Looking after some one's money**

| S/ No | **11.1** Does any member of the household look after someone's money?<br>1.Yes<br>2.No<br>*If no go to 11.7* | **11.2** Which household member<br>1.Household head<br>2.Spouse<br>3.Son<br>4.Daughter<br>5.Any other specify | **11.3** Is it for a<br>1.Person<br>2.Group<br>3.Other please specify___ | **11.4** What is the relationship with the person or group whose money is looked after?<br>*(See options 8.1)* | **11.5** How frequent do look after?<br>1. Daily<br>2. weekly<br>3. Monthly<br>4. other please specify_____ | **11.6** For what purpose do they keep money with the household member?<br>*( see options 11.6)* | **11.7** *If no* one in the house is looked as a guard, why not?<br>*( see options 11.7)* | ***Options for 11.6***<br>Unforeseen event<br>Specific purpose( education, furniture, wedding, land, house)<br>Any other specify____________<br>***Options for 11.7***<br>No one has ever asked for keeping their money<br>People ask me for keeping their money but refuse because of security<br>It is hard keeping other persons money while you need money<br>It is hard to refrain from spending other person's money<br>Not interested<br>Any other specify_____________ |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |

| | **12.1** Does any household member keep their money with someone else?<br>1. Yes 2. No<br>*(If no, go to 12.6)* | **12.2** Which household member *(If more than one, please list them in the space provided and respond to subsequent question)*<br>1.Household head<br>2. Spouse<br>3. Son<br>4.Daughter<br>5.Any other specify_____ | **12.3** For what purpose do they keep money? See options | **12.4** How frequent do they keep?<br>1. Daily<br>2. weekly<br>3.Monthly<br>4. Other please specify_________ | **12.5** What is the relationship with the person keeping money for them?<br>1. Household member<br>2. Friend<br>3. Family member outside the household<br>4. Any other specify | **12.6** *If no* household member who keep money with somebody outside the household, why not?<br>1. No money to save<br>2. Not interested<br>3. Does not trust other person with my money<br>4.Other (please specify)___________ |
|---|---|---|---|---|---|---|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**E5. Credit Purchases**

| **S/N** | **13.1** Does any household member buy anythin | **13.2** Who buys them?<br>1.Household head<br>2.Spouse<br>3.Son<br>4.Daughter<br>5.Any other | **13.3** What items are being bought on credit? *Please list*<br>___________<br>___________<br>___________ | **13.4** Why buy on credit?<br>1. Buying when cannot afford now, to pay later<br>2.Buying what you can't afford<br>3. For emergency | **13.5** How often do you buy?<br>1. Daily<br>2. Weekly<br>3. Monthly<br>4. Any other specify_____ | **13.6** How much?<br>*Value in Tsh.* | **13.7** *If* do not buy on credit why not buy on credit?<br>1. I have sufficient fund<br>2. I don't like debts<br>3.They charge interest<br>4.It is against my | |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | g on credit from shop?<br>1. Yes<br>2. No<br>*(If no, go to 13.7)* | specify | ________________________________ | 4. I am used to debt<br>5. I always don't have enough money<br>6.Other please specify___________ | | | belief<br>5. Not available<br>6. Any other specify___________ | |
| **1** | | | | | | | | |
| **2** | | | | | | | | |
| **3** | | | | | | | | |
| **4** | | | | | | | | |

**E. 6 Loans /Credit**

14.0 In the past 12 months is there any household member who borrowed money? 1. Yes 2. No *If no*, go to Section E

| S/N | **14.1** Household member<br>Household Head<br>Spouse<br>Son<br>Daughter<br>Other please specify_____ | **14.2** What was the purpose for borrowing? *(See options 14.2 below this table)* | **14.3** Where did they borrow?<br>1.Family members<br>2. Friend<br>3. Shop<br>3.Money lenders<br>4. Group Members<br>5. Non-Bank Financial Institution<br>6. Bank<br>7.Other please specify____________ | **14.4** Why did they borrow from the specified place<br>1. The are available<br>2. They are close to me<br>3. Easy to get credit<br>4. They don't charge interest<br>5. Can access other facilities e.g. saving<br>6. They are friendly<br>7.Other please specify_________ | **14.5** How often do they borrow?<br>1. daily<br>2. Weekly<br>3. Monthly<br>4. after every 6 months<br>5. Yearly<br>6. Any other specify | **14.6** How much interest did they pay? *(rate of interest/total amount of interest)* | **14.7** What was the loan term period?<br>1 month<br>3 months<br>6 months<br>9Months<br>More than 12 months<br>Any other specify | **14.8** Who was responsible to pay?<br>1. Daughter<br>2. Son<br>3. Spouse<br>4. Household head<br>5.Any other specify |
|---|---|---|---|---|---|---|---|---|
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***Options for 14.2***
Meet shortage of fund for food
Paying bills
For education
Purchase of asset
Starting business
Boosting business
Holiday(entertainment, football club, wedding, send-off kitchen party, birthdays)
Any other specify________

**15.0** *If* a bank has not been mentioned why didn't they borrow from bank?
1.______________________________________________________2______________________________________________3.__________
_____________________________________________4______________________________________________

**E7. Lending to others**

<table>
<tr><td>S/No</td><td>Description</td><td>Responses</td><td rowspan="9">Options for 16.2<br>Friend<br>Neighbour<br>Relative<br>Any person<br>Any other specify_____________<br>Options for 16.4a<br>Characteristics of a person (e.g. trustworthy, creditworthy, integrity)<br>Ability to pay<br>Compassionate<br>Relationship to them<br>Any other specify</td></tr>
<tr><td>16.1a</td><td>Does any household member lend money to others (friend, relative, neighbour)?</td><td>1. Yes<br>2. No</td></tr>
<tr><td>16.1b</td><td>Which household member? 1. Household head 2. Spouse 3. Other specify_____</td><td></td></tr>
<tr><td>16.2a</td><td>Who do you mostly give loan to them? (See options 16.2)</td><td></td></tr>
<tr><td>16.2b</td><td>What was the money lent out for? 1. Business 3. Education 4. Need for Food 4. Other please specify___________</td><td></td></tr>
<tr><td>16.3</td><td>How often do you lend them? 1. Once per month 2. Once per year 3.Any other specify________________</td><td></td></tr>
<tr><td>16.4a</td><td>What criteria do you use? (See options 16.4a)</td><td></td></tr>
<tr><td>16.4b</td><td>Do you charge interest?</td><td>1.Yes 2.No</td></tr>
<tr><td>16.5</td><td>What was the loan term period? 1. One week<br>2. One month</td><td></td></tr>
</table>

| | | | |
|---|---|---|---|
| | 3. One year<br>4. Any other __ | | *The respondent can choose multiple options to answer 16.4a*<br>***Options for 16.8***<br>Don't have money to lend<br>Don't trust people with my money<br>Repayment is not certain<br>Any other specify______________ |
| **16.6** | Overall how do you rate the repayment for the money lent out? Please<br>*Very poor 1__2__3__4__5 Very good* | | |
| **16.7** | How much loan is outstanding? Amount in Tsh. | | |
| **16.8** | *If* you don't lend to others why? *( See options 16.8)* | | |

**E8. Plan for old age**

| S/N | **17.1** Does any household member contribute or receive retirement benefits?<br>Contribute<br>Receive<br>Non | **17.2** Name of Household member | **17.3** *If* retirement is received how is it linked to the previous income generating activity?<br>*( refer to section B, 4.1)* | *If* contributing, who contributes?<br>Household head<br>Daughter<br>Son<br>Spouse<br>Any other specify_______ | **17.5** How do you/they contribute?<br>1. Bank account/check<br>2. Payroll reduction<br>3.Cash<br>4. Mobile money services<br>5. Any other specify | **17.6** Frequency of contribution<br>Monthly<br>Quarterly<br>Any other specify___ | **17.7** Is it voluntary or involuntary?<br>Voluntary<br>Involuntary |
|---|---|---|---|---|---|---|---|
| 1 | | | | | | | |
| 2 | | | | | | | |
| 3 | | | | | | | |

**17.8** *If* voluntary, what motivates you to engage in contribution?
____________________________________________2___________________________________3________________________

**E9. Insurance**

**18.1** Does any household member engage in formal insurance? 1. Yes 2. No *(If no, go to **18.6**)*
**18.2** What type of insurance?

1. Health 2. Disability 3. Property 4. Motor 5. Education 6. Special event (Wedding, funeral) 5. Any other specify___________________

**18.3** Who pays for insurance? 1. Household head 2. Spouse 3.Son 4.Daughter 5. Any other specify

**18.4** Does the household member who pays for insurance pay it willingly? 1. Yes 2. No

**18.5** How do you fill about paying for insurance? ________________________________________________________________________________

**18.6** You said you do not engage in any formal insurance, *please explain any three reasons for not engaging in insurance.*

1.__________________________________________________________________________________

2.__________________________________________________________________________________

3.__________________________________________________________________________________

**Do you have any other information that you think would help us understand about your financial experience and use of financial services? *Please write below***

______________________________________________________________________________________________________________

______________________________________________________________________________________________________________

______________________________________________________________________________________________________________

____________________________________________________________________________________

***Thank for your kind cooperation***

## Appendix B: Financial Diary Instruments

**Financial Diary** **June 2015**

Household Identification ________________________ Code No.________________________

Daily Cash inflows and out flows as on: Day___________________ Date___________________

| Code No. | Cash Inflows ( Income) | Total | Code No. | Cash outflows (expenditure) | Total | Cash/ Bank Balance |
|---|---|---|---|---|---|---|
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| | **Total** | | | **Total** | | |

Additional information_________________________________________________________

_______________________________________________________________________

_______________________________________________________________________

**Handout**

Below is the list of items for both sources of income and uses of income (expenditure). Block A is a lists the items through which household record their income. Block B is a list the items through which household spend their income.

## A: INCOME- CASH INFLOWS

**Income/ Cash Inflows; includes money/income received as reward for job done and gifts in form of money. Below is the list of common sources of income to household**

| Items |
|---|
| Balance b/d ( money remained from previous spending) |
| Wage/salary |
| Sale of asset |
| Gift |
| Bonus/interest earned |
| Honoraria |
| Loan(bank, friend, etc) |
| Overdraft |
| Salary/Wage advance |
| Receipt for borrowers |
| And the related |

## B: EXPENDITURE /CASH OUTFLOWS

**Expenditure/Cash outflows**; includes all uses of income, from purchase of household items to saving and investment. Below is the list of common items where household spend their money.

| **Items** | **Items** | **Items** |
|---|---|---|
| **Household** | **Insurance** | **Entertainment** |
| Food (rice, flour, beef vegetables) | Health | Purchase CDs/DVDs |
| Cleaning materials | Property | Attend Tamasha |
| Laundry materials | Life | Attend Movies |
| Baby caring (food, diaper) | **Bills (telecom, electricity and water)** | Outing |
| Other please specify | Land line | Purchase news paper |

| | | |
|---|---|---|
| **Transport** | Mobile phone | Purchase book |
| Public transport fare | Internet | **Livestock** |
| Private car/ petrol/diesel | TV licence / rental | food |
| Parking fee | Electricity | veterinary |
| Tax fares | Water | Others |
| Car maintenance and repair | chacoal/gas/ | **Others** |
| **Medical and health** | **Durables and lump sum** | Contribution made (Wedding/birthday |
| See Doctor/specialist | Furniture/appliances | Money given charity activities( donations to charity organization, church etc) |
| Purchase of medicine | Holiday/outing | ***And the related*** |
| Herbals | Training/education | |
| **Saving and investment** | Building house | |
| Bank account/saving | others please specify | |
| Fixed deposit | **Personal expenditure** | |
| Saving at home | Hair dresser/Barber | |
| Saving with somebody | Purchase clothing/ Shoe | |
| Loan/credit payment | Clothing/shoe repair | |
| Credit given out | Pocket money to children | |

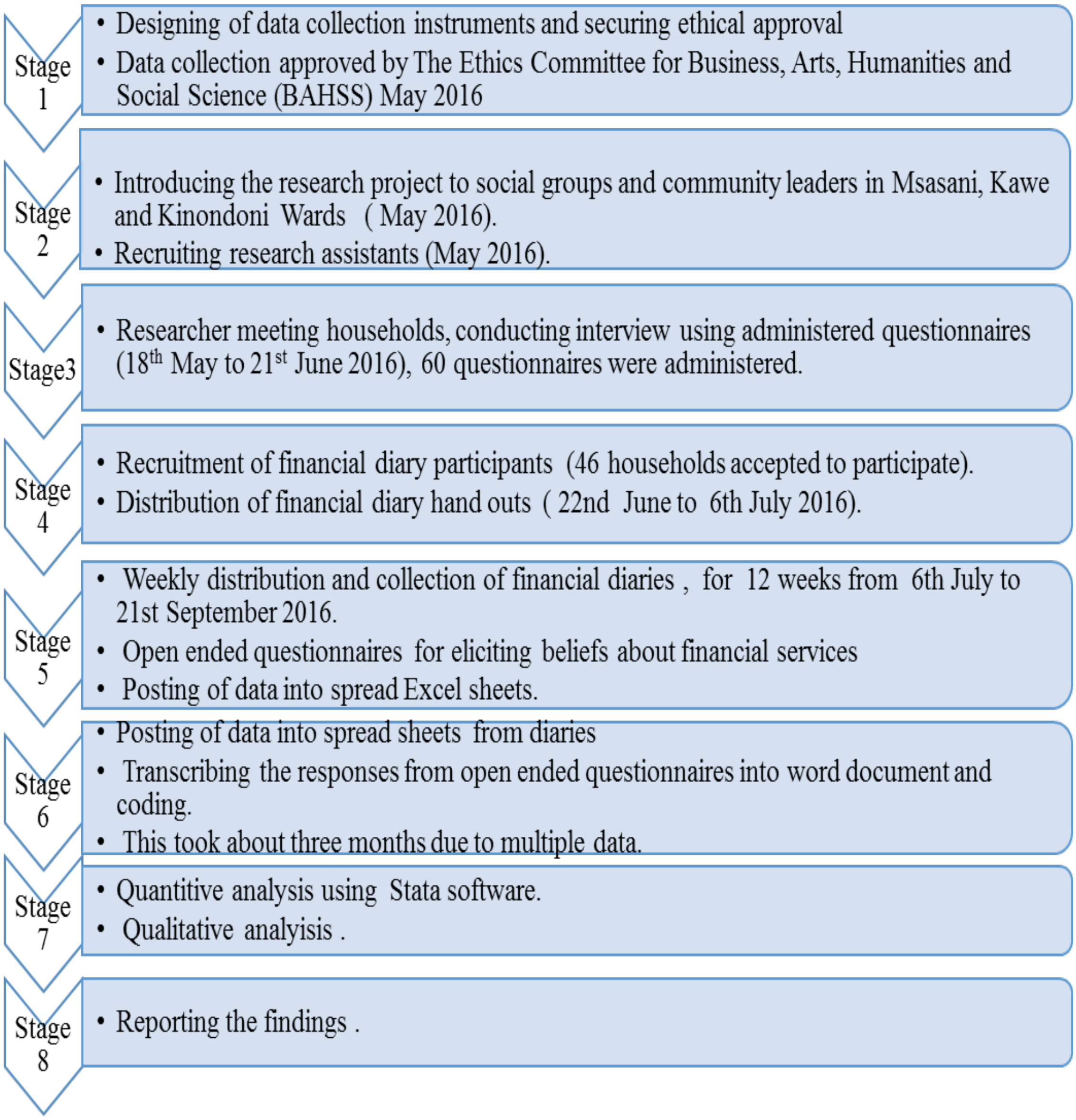
## Appendix C: Interview guide - Open ended questions

1. What do you consider to be the advantages of using formal financial services?
2. What do you consider to be disadvantages of using formal financial services?
3. What alternative source of financial services that comes to your mind other than formal financial institutions? (list from the most important source to the least)
4. When you plan and make decision to use or not to use financial services, there might be people (family members, friends, social group) who would influence you in either to use or not to use financial services.
   a) Would you please list the individuals or social groups who would approve your decision to use financial services?
   b) Would you please list individuals or social groups who would disapprove your decision to use financial services?
5. Sometimes when we are not sure about things, we look to see what others are doing.

   a) Please list individuals or social groups relating to you who participate in formal financial services

   b) Please list any factor that you think would make easy for you to use financial services
6. Please list any factor that you think create difficulties for you to use financial services

## Appendix D: Data Collection Procedures Using Financial Diaries Methodology



# Appendix E: Preliminary Analysis; Behavioural Factors and the Use of financial services

## Logistic Regression Results

| Respondent variable | BANKACCOUNT | Odds Ratio | P-Value |
|---|---|---|---|
| Financial Knowledge and awareness of financial terms | know savings account | 3.777 | 0.000 |
| | know current account | 1.729 | 0.000 |
| | Know debit | 1.286 | 0.000 |
| | know ATM | 3.369 | 0.000 |
| Financial Desires/ aspirations | Demand for financial education on how interest work and are calculated | 0.624 | 0.000 |
| | Demand for financial education on how insuring covering your life | 1.449 | 0.001 |
| | Demand for financial education on how - better understand the services and products provided by financial service providers | 1.378 | 0.005 |
| | Demand for financial education on how - open a bank account | 0.207 | 0.000 |
| Financial Perceptions | You try - save regularly | 2.748 | 0.000 |
| | Having an account in a financial institution makes it easier - get credit for your business | 1.412 | 0.001 |
| | You are worried that you won't have enough money for old age | 0.727 | 0.000 |
| | You prefer - save where your money is safe, even if the returns are low | 1.663 | 0.000 |
| | You are saving for something specific, such as education, an appliance or furniture | 1.813 | 0.000 |
| | You have a good idea of what interest/returns you get on the money you save | 2.102 | 0.000 |
| | You know quite a bit about money and finances | 1.609 | 0.000 |
| | When it comes - financial matters you prefer - talk directly - a person | 1.769 | 0.000 |
| | You are willing - pay in advance for cover that will assist you in case there is an emergency in the future e.g. insurance | 1.393 | 0.002 |
| | You would trust another organization which is not a bank, - keep your savings safely | 0.698 | 0.000 |

Note ; Logistic regression coefficient with significant level indicated by (* $P \leq 0.001$ ). Response variable is (1= use of financial service, 0=Non use of financial services. LR chi2(18) = 3435.56 Prob > chi2 = 0.0000 Pseudo R2 = 0.4

## Appendix F: The effects of behavioral factors using alternative measures

| **Independent Variables** | **Intention to use financial services**<br><br>**(as latent variable)** | **Intention to use financial services**<br><br>**(as observable variable)** | **The existing findings are based on observable Intention variable, aspiring knowledge on how to open account** |
|---|---|---|---|
| Attitudes towards financial services | 1.029 | 17.497* | +ve* |
| Social norms | -0.303 | -7.406* | +ve * |
| Perceived Behavioural Control | -0.661 | -9.752* | -ve* |
| **Independent variables** | **Behaviour/ Use of Financial Services** | n/a | **Behaviour /Use of Financial Services** |
| Intention as a latent variable *(information what is the intention using financial services)* | -1.030* | n/a | |
| Perceived Behavioural control | 0.963 * | n/a | |
| Intention as an observable variable<br><br>*...would you like to have my own bank account* | -0.976 * | n/a | -ve* |
| Perceived Behavioural control | 0.916* | n/a | +ve |

Note ; Results from Structural Equestion Model , (* P ≤ 0.001 ), n/a-not applicable

## Appendix G: Project Time Line 1st October 2013 to 31st September 2016

| | **Year I** | | | | **Year II** | | | | **Year III** | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |
| **Tasks/Months** | 3 | 6 | 9 | 12 | 15 | 18 | 21 | 24 | 27 | 30 | 33 | 36 |
| Literature Review | | | | | | | | | | | | |
| RPA Document | | | | | | | | | | | | |
| Data Collection Phase | | | | | | | | | | | | |
| Initial Analysis | | | | | | | | | | | | |
| Transfer MPhil/PhD | | | | | | | | | | | | |
| Data Collection, Phase II | | | | | | | | | | | | |
| The first empirical chapter | | | | | | | | | | | | |
| Further Analysis and PhD Thesis Write Up | | | | | | | | | | | | |
| Submission of Thesis Report | | | | | | | | | | | | |

## Appendix H: Research Questions, data sources and data analysis Techniques

| | Research Questions | Rationale/ Significance | Data Source | Data Analysis Techniques |
|---|---|---|---|---|
| **1** | What are the livelihoods and financial experiences of households in Tanzania? | It intends to highlight financial experience of households, financial values, and financial coping strategies. The understanding of financial experiences will enhance the body of knowledge on financial experiences of households' in relation to use of financial services. In addition, identification of financial experiences can enable improvement in policy initiatives relating to access to finance. In accordance with this study, Barr et al., (2005) suggest empirical studies to back up behavioural theories by examining household financial behaviour and financial constraints facing households. | *Primary data- Financial diary Methodology* | *Qualitative and quantitative analysis* |
| **2** | What beliefs are held by households in Tanzania about the use of financial services? | It identifies household beliefs regarding the usage financial services. Beck et al., (2008) argue that use of financial services could be the matter of willingness. On the other hand the willingness to use financial services could be a result of beliefs and perception about financial services. Thus, the question is what are household beliefs and perceptions regarding the use of finance services? Thus, it offers qualitative analysis of household behavioural characteristics of households for the use of financial services. | *Primary data- Open ended Questionnaire* | *Qualitative analysis* |
| **3** | What are the effects of household behavioural characteristics for intention to use financial services and subsquent actual use of | This attempts to quantitively provide un understanding about the role of behavioural factors in the use of financial services. It highlights the relationship between household behavioural characteristics and the use of financial services. Additionally, it explores the influence behavioural factors | *Secondary data- FinScope Survey, 2006,2009 and 2013* | *Quantitative Analysis- Structural Equation Modeling* |

| | Research Questions | Rationale/ Significance | Data Source | Data Analysis Techniques |
|---|---|---|---|---|
| | financial services? | for intention to use financial services and subsequent effects of intention to use financial services in the actual use of financial services. | | |

## Appendix I: Tetra choric correlation among behavioural observable variables

| | p1 | p2 | p3 | p4 | p5 | p6 | p7 | p8 | p9 | p10 | s1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p1 | 1 | | | | | | | | | | |
| p2 | 0.4423* | 1 | | | | | | | | | |
| p3 | 0.5313* | 0.3911* | 1 | | | | | | | | |
| p4 | 0.5812* | 0.2718* | 0.7845* | 1 | | | | | | | |
| p5 | 0.6179* | 0.2859* | 0.6569* | 0.8314* | 1 | | | | | | |
| p6 | 0.5865* | 0.3550* | 0.7242* | 0.7413* | 0.7896* | 1 | | | | | |
| p7 | 0.5376* | 0.4126* | 0.6607* | 0.6643* | 0.6303* | 0.6894* | 1 | | | | |
| p8 | 0.5571* | 0.3709* | 0.6890* | 0.7204* | 0.6890* | 0.6471* | 0.6778* | 1 | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| p9 | 0.4497* | 0.4932* | 0.6378* | 0.4567* | 0.3959* | 0.4923* | 0.6199* | 0.6122* | 1 | | |
| p10 | 0.4533* | 0.3554* | 0.6175* | 0.6040* | 0.5421* | 0.5758* | 0.5740* | 0.8246* | 0.7709* | 1 | |
| s1 | 0.0548* | 0.0006 | 0.0867* | 0.0369 | 0.019 | 0.0448* | 0.0822* | 0.0604* | 0.0856* | 0.1283* | 1 |
| ah1 | 0.2115* | 0.1441* | 0.2393* | 0.2651* | 0.2069* | 0.2848* | 0.2501* | 0.2632* | 0.2687* | 0.2782* | 0.1938* |
| s2 | 0.3149* | 0.1380* | 0.2663* | 0.3513* | 0.3146* | 0.3026* | 0.2582* | 0.3177* | 0.1954* | 0.3143* | 0.1202* |
| a1 | 0.0054 | 0.0664* | 0.0563* | 0.0540* | 0.0427 | 0.0614* | 0.1053* | 0.0687* | 0.0545* | 0.0844* | 0.0154 |
| s3 | 0.0374* | 0.0324 | 0.1410* | 0.0338 | 0.0228 | 0.0813* | 0.1510* | 0.1028* | 0.1685* | 0.2084* | 0.5873* |
| a2 | 0.2324* | 0.1434* | 0.2868* | 0.3204* | 0.2239* | 0.2816* | 0.3087* | 0.3213* | 0.1959* | 0.2999* | 0.1423* |
| a3 | -0.0850* | 0.0366* | 0.0005 | -0.0485* | -0.0814* | -0.1266* | -0.0259 | -0.0007 | 0.0126 | 0.0400* | 0.009 |
| as1 | 0.1823* | 0.1306* | 0.2394* | 0.2365* | 0.2138* | 0.2456* | 0.2150* | 0.2430* | 0.2034* | 0.2678* | 0.1463* |
| am1 | 0.2147* | 0.0916* | 0.2103* | 0.2724* | 0.2095* | 0.2646* | 0.2744* | 0.2188* | 0.1367* | 0.2284* | 0.2130* |
| ps1 | 0.2690* | 0.0939* | 0.2682* | 0.3803* | 0.3376* | 0.3701* | 0.2650* | 0.3504* | 0.0827* | 0.3196* | 0.1330* |
| am2 | 0.1671* | 0.1172* | 0.2033* | 0.1517* | 0.1018* | 0.1705* | 0.2217* | 0.1740* | 0.1591* | 0.2008* | 0.2069* |
| ps2 | 0.3586* | 0.1866* | 0.3058* | 0.4478* | 0.4614* | 0.4206* | 0.3072* | 0.3542* | 0.1707* | 0.2769* | 0.0674* |
| s4 | 0.1963* | 0.2376* | 0.2012* | 0.2386* | 0.1962* | 0.2242* | 0.2248* | 0.2212* | 0.1958* | 0.1916* | 0.1607* |
| ps3 | 0.1076* | 0.1620* | 0.1832* | 0.1472* | 0.1112* | 0.1719* | 0.2523* | 0.1764* | 0.1518* | 0.1800* | 0.1462* |
| am3 | 0.1735* | 0.2513* | 0.2299* | 0.2324* | 0.2079* | 0.2225* | 0.3744* | 0.2340* | 0.1616* | 0.2123* | 0.0895* |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| as2 | 0.1261* | 0.1754* | 0.1935* | 0.1166* | 0.0481* | 0.0647* | 0.2050* | 0.1745* | 0.1763* | 0.1752* | 0.0666* |
| ab1 | -0.0356* | 0.1794* | -0.0792* | -0.0092 | 0.0226 | -0.0477* | -0.0580* | -0.0279 | -0.0622* | -0.0523* | -0.0342* |
| a4 | 0.0921* | 0.0840* | -0.0216 | 0.0755* | 0.1087* | 0.0628* | -0.0219 | 0.0537* | -0.0469* | -0.0085 | -0.0087 |
| a6 | 0.0565* | 0.0662* | -0.0177 | 0.0398 | 0.0647* | 0.0659* | 0.0112 | 0.0519* | -0.0286 | 0.0453* | -0.0424* |
| s5 | -0.1091* | -0.1129* | -0.1026* | -0.1659* | -0.1071* | -0.1113* | -0.1610* | -0.1032* | -0.1126* | -0.1073* | -0.0836* |
| s6 | -0.0825* | -0.0758* | -0.1219* | -0.0831* | -0.0612* | -0.0419* | -0.1348* | -0.0892* | -0.1665* | -0.1083* | -0.0767* |
| s7 | 0.0320* | 0.0739* | 0.0339* | 0.0405* | 0.0056 | 0.0711* | 0.0671* | 0.0798* | 0.0460* | 0.0809* | 0.0416* |
| s8 | -0.0256 | 0.0094 | -0.1028* | -0.043 | -0.0484* | -0.0447* | -0.0919* | -0.0017 | -0.1197* | -0.0908* | -0.0364* |
| s9 | -0.0654* | -0.0522* | -0.1556* | -0.1094* | -0.0283 | -0.1138* | -0.1196* | -0.0748* | -0.2002* | -0.1329* | -0.1087* |
| | s2 | a1 | s3 | a2 | a3 | as1 | am1 | ps1 | am2 | ps2 | s4 |
| s2 | 1 | | | | | | | | | | |
| a1 | 0.0405* | 1 | | | | | | | | | |
| s3 | 0.2541* | 0.1830* | 1 | | | | | | | | |
| a2 | 0.3794* | 0.0431* | 0.2855* | 1 | | | | | | | |
| a3 | 0.0818* | 0.1313* | 0.0886* | 0.1513* | 1 | | | | | | |
| as1 | 0.3159* | 0.0610* | 0.3404* | 0.5260* | 0.1455* | 1 | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| am1 | 0.3613* | 0.0453* | 0.3164* | 0.3914* | 0.0679* | 0.5039* | 1 | | | | |
| ps1 | 0.4229* | 0.029 | 0.1982* | 0.4262* | -0.002 | 0.4616* | 0.5363* | 1 | | | |
| am2 | 0.2792* | 0.1306* | 0.3372* | 0.3923* | 0.1471* | 0.4380* | 0.4750* | 0.4446* | 1 | | |
| ps2 | 0.4483* | 0.0221 | 0.1104* | 0.3944* | -0.0107 | 0.3690* | 0.3508* | 0.6033* | 0.3068* | 1 | |
| s4 | 0.3276* | 0.1062* | 0.3170* | 0.4321* | 0.1461* | 0.5036* | 0.3615* | 0.3443* | 0.4843* | 0.4342* | 1 |
| ps3 | 0.2931* | 0.1947* | 0.2861* | 0.3905* | 0.1393* | 0.3458* | 0.4611* | 0.3537* | 0.5245* | 0.3268* | 0.4326* |
| am3 | 0.2426* | 0.0919* | 0.2513* | 0.3753* | 0.1347* | 0.4192* | 0.3411* | 0.2768* | 0.4580* | 0.2832* | 0.4325* |
| as2 | 0.1808* | -0.0021 | 0.1684* | 0.3056* | 0.0944* | 0.2777* | 0.1695* | 0.1720* | 0.2795* | 0.1867* | 0.2787* |
| ab1 | 0.0392* | -0.0343 | -0.0171 | 0.0175 | 0.1480* | -0.0349* | -0.0391* | -0.0894* | -0.0329 | 0.0571* | 0.1263* |
| a4 | 0.1916* | -0.1474* | -0.0045 | 0.2088* | 0.0718* | 0.1132* | 0.1291* | 0.1882* | 0.0924* | 0.1952* | 0.1098* |
| a6 | 0.0625* | 0.0011 | -0.0525* | -0.0133 | 0.0178 | 0.0162 | 0.0276 | 0.1003* | -0.0681* | 0.0770* | -0.0510* |
| s5 | -0.0495* | -0.0786* | -0.0769* | -0.0853* | 0.0519* | -0.0710* | -0.0598* | -0.0258 | -0.0808* | -0.0403* | -0.0809* |
| s6 | -0.0824* | -0.0183 | -0.0473* | -0.0945* | 0.0028 | -0.0599* | -0.0678* | -0.0364 | -0.0612* | -0.0810* | -0.0801* |
| s7 | 0.2047* | 0.0438* | 0.1196* | 0.1371* | 0.1073* | 0.1694* | 0.1620* | 0.1245* | 0.1043* | 0.1035* | 0.0959* |
| s8 | 0.023 | -0.0532* | 0.011 | 0.0148 | 0.1399* | 0.0249 | 0.013 | -0.0129 | -0.0275 | -0.0467* | 0.0961* |
| s9 | -0.0005 | -0.1547* | -0.1116* | -0.0356 | 0.0880* | 0.0108 | 0.0036 | 0.0099 | -0.0208 | 0.0063 | -0.0422 |

| | am3 | as2 | ab1 | a4 | a6 | s5 | s6 | s7 | s8 | s9 |
|---|---|---|---|---|---|---|---|---|---|---|
| am3 | 1 | | | | | | | | | |
| as2 | 0.3254* | 1 | | | | | | | | |
| ab1 | 0.1168* | 0.0858* | 1 | | | | | | | |
| a4 | 0.1233* | 0.1602* | 0.2587* | 1 | | | | | | |
| a6 | 0.0141 | 0.0648* | 0.1390* | 0.3366* | 1 | | | | | |
| s5 | -0.0897* | -0.0237 | 0.0062 | 0.0706* | 0.0705* | 1 | | | | |
| s6 | -0.0760* | -0.033 | 0.0647* | 0.0712* | 0.0702* | 0.3266* | 1 | | | |
| s7 | 0.1292* | 0.0809* | 0.0682* | 0.0432* | 0.0827* | 0.1366* | 0.1342* | 1 | | |
| s8 | 0.0619* | 0.0253 | 0.0959* | 0.0425 | 0.0015 | 0.2849* | 0.2437* | 0.2401* | 1 | |
| s9 | 0.0492 | 0.0233 | 0.1864* | 0.2190* | 0.1627* | 0.3023* | 0.1917* | 0.1218* | 0.2798* | 1 |

Note ; Correlation Analysis , (* $P \leq 0.001$ )

## Appendix J: Correlation Analysis of Household Financial Experience Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Business income | 1 | | | | | | | | | | | | | | | | | | | |
| Loan | 0.290 | 1 | | | | | | | | | | | | | | | | | | |
| other income | 0.222* | 0.37 | 1 | | | | | | | | | | | | | | | | | |
| Employment Income | . | 0.747 | -0.196 | 1 | | | | | | | | | | | | | | | | |
| Giftremittance | 0.081 | -1 | 0.232 | 1 | 1 | | | | | | | | | | | | | | | |
| Mchezokibubu | 0.952* | . | . | . | . | 1 | | | | | | | | | | | | | | |
| Newtotal | 0.638* | 0.594 | 0.114* | 0.992* | 0.05 | 0.5971* | 1 | | | | | | | | | | | | | |
| Billsexp | 0.096* | -0.225 | -0.013 | 0.993 | 0.073 | -0.17 | 0.177* | 1 | | | | | | | | | | | | |
| Educationexp | 0.126* | -0.382 | 0.544* | 0.995* | -0.131 | 0.9863* | 0.464* | 0.304* | 1 | | | | | | | | | | | |
| Businessexp | 0.441* | 0.646 | 0.047 | 0.754 | 0.336 | 0.578 | 0.487* | 0.129* | 0.041 | 1 | | | | | | | | | | |
| Foodexp | 0.078* | -0.097 | 0.172* | 0.959* | 0.16 | 0.213 | 0.103* | 0.732* | 0.242* | 0.07 | 1 | | | | | | | | | |
| Energy | 0.190* | 0.690* | 0.257 | 0.956* | 0.218 | 0.075 | 0.313* | 0.282* | 0.480* | 0.577* | 0.282* | 1 | | | | | | | | |
| Medical Exp | 0.166 | 1 | 0.737* | 0.367 | -0.142 | . | 0.284* | -0.014 | -0.352 | 0.503 | 0.008 | -0.199 | 1 | | | | | | | |
| Personal | 0.609* | . | 0.126 | 0.901* | . | . | 0.252* | 0.095 | -0.075 | 0.585 | 0.03 | 0.196 | 0.978* | 1 | | | | | | |
| Investment | 0.304 | -1 | 0.572* | 0.853 | . | 0.977 | 0.582* | 0.551* | -0.06 | 0.343 | 0.048 | -0.025 | . | . | 1 | | | | | |
| Loanrep | 0.413 | 1 | 0.332 | 0.587 | 0.542 | -1 | 0.568 | -0.089 | -0.071 | 0.363 | 0.102 | 0.344 | -0.956 | 0.596* | -0.176 | 1 | | | | |
| Mchezorosca | 0.470* | 0.207 | -0.128 | 1.000* | -0.043 | 0.416 | 0.355* | 0.084 | 0.112 | 0.06 | 0.077 | 0.312* | 0.203 | 0.796* | 0.336 | -0.226 | 1 | | | |
| Totalsavings | 0.272* | 0.001 | -0.16 | 0.702 | 0.011 | 0.324 | 0.313 | 0.042 | 0.111 | 0.038 | 0.039 | 0.489 | 0.11 | 0.93 | 0.334* | -0.152 | 0.926* | 1 | | |
| Transport | 0.001 | -0.124 | -0.051 | 0.739* | -0.231 | 0.452 | 0.039 | 0.318* | 0.268* | -0.063 | 0.139 | 0.2322* | 0.483 | 0.847* | 0.027 | 0.107 | 0.170* | 0.066 | 1 | |
| Socialsupport | 0.108 | . | -0.094 | . | 1.000* | . | 0.303* | 0.091 | 0.997* | 0.146 | 0.393 | 0.339 | . | -0.369 | 0.103 | 0.722 | 0.406 | 0.179 | -0.078 | 1 |

Note ; Pearson Correlation Analysis , (* P ≤ 0.001

## Appndix K: Research Findings and Research Implications

| Research Objective | Research context/ Hypothesis | Research findings | Implications |
|---|---|---|---|
| **To critically understand financial experience of households in Tanzania using a financial diary methodology.** | What are financial experience of households in Tanzania? | Cash inflow is indicated to come from different channels including their income generating activities; however it appears to be uncertain. | Need for financing income generating activities, in order to increase productivity and earnings.<br>Need for finance to smoothen consumptions.<br>Need for efficient saving facilities to improve household saving behaviour.<br>Need for Financial literacy and money management skills to improve household financial management and capability of engaging in financial services |
| | | Majority households involve in saving for emergence, deferred purchase, for investment and for paying debts. But, facilities used are weak.<br><br>Majority households engage in borrowing for needs such as food, business capital, investment, rent, education, funeral ceremonies, and medical needs. Sources of finance are limited resources. In relation to the results from correlation indicate insignificant correlation between household borrowing and investment. | |
| | | Household face financial challenges such as insufficient income/low income, business failure, lack of capital, problems related to price fluctuation of goods and services. These challenges, result to such problems as difficulties in making end meet, difficulties to support children education and failure to expand business. | |
| | | Financial strategies used saving, borrowing, selling of assets, social support, engagement in multiple sources of income, support from family and friends. All these are sourced from the informal sector. | |
| | | Financial illiteracy and lack of money management skills. | |

| | | | |
|---|---|---|---|
| **To analyse household salient beliefs about the use financial services in Tanzania.** | What are household beliefs regarding the use of financial services?<br><br>Specifically, what are household perceptions about financial services, what household beliefs in relation social influence for the use of financial services? And, what are households' perceived easy of difficulties of using financial services? | Household bear positive perception about financial services in such aspects as security, money management, saving facilities, financing and improvement of living standards. Financial services are negatively perceived for cost associated with financial services, problems related to access financial services, deficiency in security of funds.<br><br>Majority household participants indicated normative beliefs (social norms) to influence their decision to use financial services.<br><br>Household perception of difficulties of using financial services relate to lack of financial knowledge, characteristic features of financial services, their spending behaviour and insufficient income. | Despite household non-use of financial services, they hold certain belief about financial services. According to Ajzen (1991), beliefs lead to formation of attitudes, social norms and perceived behavioural control about the intended behaviour. In this regard, it is important for policy makers to take advantage of the positive perceptions (beliefs) held by households by initiating policies that would enhance usage of financial services. |
| **To examine the effects of households behavioural characteristics for intention to use financial services and** | There is relationship between households' attitude towards financial services and intention to use financial services. | Significant positive influence | These findings imply that behavioural factors play an important role in the use of financial services. This is consistent with the theory planned behaviour |

| | | | |
|---|---|---|---|
| **subsequent actual use of financial services in Tanzania.** | | | (Ajzen,1991; Fishbein and Ajzen, 1985)<br><br>On the other hand following the measures used for intention to use financial services and actual use of financial; The findings implies that, households who do not use financial services are more likely to desire to acquire financial knowledge for facilitating their access to financial services than their counterpart.<br><br>Similarly, since intention was indicated by desire to acquire knowledge about financial services, financial literacy initiatives should be undertaken |
| | There is relationship between Household financial social norms and intention to use financial services (when intention is measured by desire to acquire knowledge on how open bank account). | Significant positive influence | |
| | There is relationship between Household financial social norms and intention to use financial services (when intention is measured by desire to hold a bank account). | | |

| | | | |
|---|---|---|---|
| | There is relationship between perceived behavioural control and intention to use financial services | Significant negative influence | with care to ensure that they are directed to the identified.<br><br>The interesting point is perceived behavioural control of use of financial service is robust for predicting use of financial services. This implies eliminating barriers to access financial services (such as financial illiteracy, eligibility, documentation, cost of services and physical barriers) is crucial for improving perceived behavioural control and subsequently increase use of financial services. |
| | Intention to use financial services as a result of behavioural control factors and perceived behavioural control have influence on the actual use of financial services | Significant negative influence | |
| | Perceived behavioural control have influence on the actual use of financial services | Significant positive influence | |

## Appendix L: The Profile of Households Financial Diaries Participants

| S/No. | Name of Household Respondent | Wards | Age of Household Respondent | Sex of Respondent | Education Attainment | Marital Status | Employment | Income Generating Activity | Multiple Activities | Household Average Monthly Income | Household with at least a member holding a bank account | Gender of Household Account holder |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Debo | Kawe | 32 | F | Primary | Married | Self Employed Unregistered | Trade agricultural products | Yes | 280000 | No | * |
| 2 | Hana | Kawe | 44 | F | Secondary and above | Married | Self Employed Unregistered | Service provision | Yes | 140000 | No | * |
| 3 | Andy | Msasani | 35 | M | Primary | Married | Self Employed Registered | Trade agricultural products | No | 300000 | No | * |
| 4 | Kazana | Msasani | 36 | M | Primary | Married | Self Employed Registered | Trade agricultural products | No | 250000 | Yes | M |
| 5 | George | Msasani | 41 | M | Primary | Married | Self Employed Registered | Trade agricultural products | No | 300000 | No | * |
| 6 | Vude | Kawe | 40 | F | Primary | Married | Self Employed Registered | Trade agricultural products | Yes | 450000 | No | * |
| 7 | Pendo | Kawe | 25 | F | Secondary and above | Single | Employed Formal | Employed | Yes | 250000 | Yes | F |
| 8 | Mbele | Mbezi | 32 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured | Yes | 300000 | No | * |

| S/No. | Name of Household Respondent | Wards | Age of Household Respondent | Sex of Respondent | Education Attainment | Marital Status | Employment | Income Generating Activity | Multiple Activities | Household Average Monthly Income | Household with at least a member holding a bank account | Gender of Household Account holder |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | products | | | | |
| 9 | Atu | Mbezi | 29 | F | Primary | Married | Self Employed Unregistered | Service provision | Yes | 330000 | No | * |
| 10 | Neema | Kawe | 38 | M | Primary | Married | Employed Formal | Employed | Yes | 450000 | Yes | M |
| 11 | Mumi | Mbezi | 51 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured and agricultural products | Yes | 550000 | No | * |
| 12 | Vicky | Mbezi | 49 | F | Primary | Married | Self Employed Unregistered | Trade processed agricultural products | Yes | 150000 | No | * |
| 13 | Aggy | Msasani | 54 | F | Primary | Separated | Self Employed Unregistered | Trade f produced agricultural goods | No | 50000 | No | * |
| 14 | Joseph | Msasani | 47 | M | Primary | Married | Self Employed Registered | Trade self-produced agricultural products | No | 400000 | No | * |
| | Mrs. Kimambo | Goba | 35 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured | Yes | 450000 | No | * |

| S/No. | Name of Household Respondent | Wards | Age of Household Respondent | Sex of Respondent | Education Attainment | Marital Status | Employment | Income Generating Activity | Multiple Activities | Household Average Monthly Income | Household with at least a member holding a bank account | Gender of Household Account holder |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | | | | | | | | products | | | | |
| 16 | Mrs. Kazimoto | Kinondoni B | 40 | F | Secondary and above | Married | Employed Formal | Employed | Yes | 1600000 | Yes | M |
| 17 | Mage | Kawe | 50 | F | Primary | Married | Self Employed Unregistered | Trade in processed agricultural products | Yes | 300000 | Yes | F |
| 18 | Tuge | Kinondoni B | 37 | F | Secondary and above | Married | Self Employed Unregistered | Service provision | No | 100000 | Yes | M |
| 19 | Mrs. Mwendo | Goba | 50 | F | Primary | Married | Self Employed Unregistered | Trade agricultural products | Yes | 50000 | No | * |
| 20 | Eddy | Kinondoni B | 50 | F | Primary | Widow | Self Employed Unregistered | Trade processed agricultural products | Yes | 40000 | No | * |
| 21 | Wendy | Kinondoni B | 38 | F | Primary | Separated | Employed Formal | Employed | Yes | 120000 | Yes | F |
| 22 | Teddy | Goba | 45 | F | Primary | Married | Self Employed Unregistered | Trade agricultural products | Yes | 300000 | No | * |
| 23 | Ann | Mbezi | 35 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured | Yes | 250000 | No | * |

| S/No. | Name of Household Respondent | Wards | Age of Household Respondent | Sex of Respondent | Education Attainment | Marital Status | Employment | Income Generating Activity | Multiple Activities | Household Average Monthly Income | Household with at least a member holding a bank account | Gender of Household Account holder |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24 | Nico | Kinondoni B | 40 | M | Secondary and above | Married | Employed informal | Employed | Yes | 260000 | No | * |
| 25 | Shim | Kinondoni B | 29 | M | Secondary and above | Married | Self Employed Registered | Trade agricultural products | Yes | 300000 | Yes | M |
| 26 | Tuli | Mbezi | 53 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured | Yes | 300000 | No | * |
| 27 | Dora | Kawe | 48 | F | Primary | Married | Self Employed Unregistered | Trade agricultural products | No | 180000 | No | * |
| 28 | Athu | Msasani | 52 | M | Primary | Married | Self Employed Registered | Trade agricultural products | No | 350000 | No | * |
| 29 | Wetu | Mbezi | 46 | F | Primary | Married | Self Employed Unregistered | Trade processed agricultural products | Yes | 150000 | No | * |
| 30 | Violet | Mbezi | 43 | F | Primary | Married | Self Employed Unregistered | Trade Manufactured | Yes | 150000 | No | * |

*Not Applicable/None users of financial services