

**THE ROLE OF FINANCIAL LITERACY ON LOAN REPAYMENT AMONG  
SMALL AND MEDIUM ENTREPRENEURS IN RWANDA CASE STUDY:  
URWEGO OPPORTUNITY BANK**

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**ABSTRACT:** *The purpose of this research was to examine the impact of financial literacy on loan repayment in Rwanda because previous research suggests that many people lack the skills needed to calculate expected returns or present discounted values, which may cause them to make suboptimal financial decision and yet financial literacy skills enable individuals to navigate the financial world, make informed decisions about their money and minimize their chances of being misled on financial matters. The research was focused on small and medium entrepreneurs in Urwego Opportunity Bank. The research was significant in various ways to individuals/bank clients, investors. Financial literacy therefore is regarded as one of the strategies used by bankers to provide knowledge and skills needed to change attitude and attract more potential users of agent banking. Financial literacy levels amongst SMEs are far too low to deal with the complexities of the matter. The quality of financial information available for financing institutions is rather poor. Credits decisions become difficult and collateral requirements as well as interest rates are high, substantially aggravating access to credit. Controlling the Loan Book is equally difficult. Indeed, banks in Rwanda are increasingly facing non-performing-loans particularly from SMEs. The impacts on the Rwandan economy – almost 90% of all enterprises in Rwanda are micro-enterprises, according to a recent PSF business. The combinations of smaller enterprises without access to cash to grow their business and banks, which are increasingly reluctant to lend to smaller clients, hamper much needed economic and social development.*

**KEYWORDS:** Financial Literacy, Loan Repayment Small and Medium Entrepreneurs, Rwanda, Urwego, Opportunity Bank

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## **INTRODUCTION**

### **BACKGROUND TO THE STUDY**

Financial literacy skills enable individuals to navigate the financial world, make informed decisions about their money and minimize their chances of being misled on financial matters (Beal and Delpachitra, 2005). The need for financial literacy has become significant with the deregulation of financial markets and the easier access to credit as financial institutions compete strongly with each other for market share, the rapid growth in development and marketing of financial products, and the Government's encouragement for people to take more responsibility for their retirement incomes.

Financial literacy involves the understanding of both basic financial concepts and the ability and discipline to use that information to make wise personal and financial decisions. These decisions include when to spend, when to save, effectively managing a budget, choosing the right financial products and readiness to address other life events, such as financing our own

or our children's education and planning for retirement. Financial literacy is also helps to exercise a judgment when we are offered access to credit and possessing the wisdom to understand how much is enough-and how much is too much. Financial literacy is a mechanism that goes beyond political, geographic and socio-economic barriers, and it is widespread in developing countries.

Since 1998, Rwanda's national development policies have been guided by Vision 2020 which sets forth the country's aspiration to transform Rwanda into a middle income country by the year 2020. To contribute to this goal, the Financial Sector Development Program II (FSDP II) over the next five years (2012-2017) seeks to develop a stable, sound and efficient financial sector that is capable of meeting the needs of the country's developing economy and reducing poverty. FSDP II establishes financial inclusion---Rwandans' increased access and informed use of financial services-- as one of its four key programs to achieve this end.

A crucial component of FSDP II's plan to increasing financial inclusion to 80% by 2017 is the establishment of a national financial education strategy (NFES), aimed at deepening and broadening the financial literacy of Rwandans.

However, financial education has a key role in not only improving knowledge of personal finance, but also transforming this knowledge into action. Financial education equips people with the knowledge, skills and belief in them to make and exercise informed confident and timely money management decisions. It provides the tools for sound money management practices on earning, spending, saving, borrowing and investing. Financial education enables people to take greater advantage of appropriate financial services – both formal and informal that are available to them, and encourages financial behaviors that enhance their overall economic well-being. The purpose of financial education is to improve the financial capabilities of individuals so that they can make appropriate financial decisions, including what financial services they use, depending on their context or “enabling environment.” Financial capability can be defined as the combination of knowledge, skills and self-efficacy needed to make and exercise money management decisions that best fit the circumstances of one's life, within an enabling environment that includes, but is not limited to, access to appropriate financial services. The FinCap survey (2012) suggest that Rwandans lack a complete set of knowledge, skills, and self-efficacy to be fully financially capable. Furthermore, Data from the 2012 Financial Capabilities Survey (FinCap Survey) suggests the following key findings with respect to Rwandans' financial capability around cash flow management, planning for the future, and experience with financial services:

1. Less than half Rwandans budget.
2. Running short of money is common, mostly due to poverty or employment status. Rwandans tend to rely on mutual support and informal credit when short of money.
3. Most Rwandans understand the importance of planning for the future and feel a sense of personal responsibility for doing so, but more than half do not know enough about how to develop a plan.
4. Sixty percent of Rwandans report that they save only if they have money left after their expenses.
5. More than half Rwandans do not report having a plan in place to manage a major unexpected expense that they might face tomorrow.
6. About half Rwandans feel out of control with their borrowing and debt.

7. Rwandans have varying degrees of knowledge of different financial services. Only 23% of respondents say they are knowledgeable about how to choose a financial product or service provider.
8. Half of Rwandans save or invest in the form of non-financial assets.

Financial education can build the knowledge, skills and self-efficacy of Rwandans, so that they are better prepared to:

1. Set and meet financial goals
2. Plan ahead and make careful decisions about future spending and saving, particularly in anticipation of periods of low or irregular income
3. Develop strategies to protect against and manage risks
4. Manage debt responsibly and effectively
5. Identify and evaluate available financial services to determine if the services meet their needs
6. Invest for retirement and diversify their assets
7. Exercise their rights and responsibilities as consumers of financial services

Financial training is one of the factors that impact positively on growth of SMEs because entrepreneurs adequate financial literacy are better placed to adapt their enterprises to constantly changing business environments (King & McGrath, 2002)..

It is in this perspective that our study aims at analyzing the role of financial literacy on loan repayment in Rwanda. Case study of small and medium entrepreneurs in Urwego Opportunity Bank.

### **Urwego Opportunity Bank**

Since 1997 Urwego Opportunity Bank (UOB) has been serving Rwandans who are economically-active but whose banking needs are underserved. As a Christian microfinance bank, UOB seeks to provide opportunities for those in poverty to transform their lives, not only economically, but socially and spiritually. They offer a full range of deposit and savings accounts that provide a safe means for storing savings and earning interest. Savings accounts allow their clients to participate in investment opportunities, insure against hard times, and pay for expenses of life events such as weddings and funerals. UOB loan products include traditional group loans through our Trust Group/Community Banking Group lending model, individual Micro-Business Loans, Micro-Consumer loans, and other flexible loan products.

Urwego Opportunity Bank (UOB) modules provide a unique service of giving specific advice to promote client transformation. The modules cover three broad areas: Business Management, Household Financial Management, and Health Management.

UOB are also providing micro insurance for mitigating life risk and affordable remittances.

### **The Five Components of Urwego Opportunity Bank Microfinance:**

1. Credit: Loans for microenterprises and consumers so they can achieve economic transformation.
2. Savings: Deposit products for microenterprises and consumers so they can safely save their money and have convenient access to cash when needed.

3. Insurance Services: For microenterprises and consumers so they can secure protection against unexpected tragedies, natural disasters, and/or crop failures.
4. Remittance Services: Affordable channels so microenterprises and consumers can send and receive funds.
5. Education/Training: On-going education/training for microenterprises and consumers so they can achieve social and spiritual transformation.(UOB,2014)

### **Problem Statement**

Individuals are increasingly in charge of their own financial security after retirement. But how well-equipped are individuals to make saving decisions; do they possess adequate financial literacy, are they informed about the most important components of saving plans, do they even plan for retirement. Financial illiteracy is widespread among the U.S. population and particularly acute among specific demographic groups, such as those with low education, women, African-Americans, and Hispanics. Moreover, close to half of older workers do not know which type of pensions they have and the large majority of workers know little about the rules governing Social Security benefits. Notwithstanding the low levels of literacy that many individuals display, very few rely on the help of experts or financial advisors to make saving and investment decisions. Low literacy and lack of information affect the ability to save and to secure a comfortable retirement; ignorance about basic financial concepts can be linked to lack of retirement planning and lack of wealth. Financial education programs can help improve saving and financial decision-making, but much more can be done to improve the effectiveness of these programs (Lusardi,2008).

Financial decisions, be they related to asset building or debt management, require the capacity to do calculations, including some complex ones. But how numerate are individuals, in particular when it comes to calculations related to financial decisions? Studies and surveys implemented in both the United States and in other countries show the level of numeracy among the population to be very low. Moreover, lack of numeracy is not only widespread but is particularly severe among some demographic groups, such as women, the elderly, and those with low educational attainment. This has potential consequences for individuals and for society as a whole because numeracy is found to be linked to many financial decisions. Now more than ever, numeracy and financial literacy are lifetime skills necessary to succeed in today's complex economic environment (Lusardi,2012).

FinCap,(2012) suggest some important capabilities challenges that Rwandans face in terms of numeracy, cash flow management, future planning, and financial service use. Looking at numeracy, less than half of Rwandans can give correct answers to all four numeracy questions which test addition, subtraction, multiplication, and division. The FinCap results also suggest there is a disconnect between Rwandans' knowledge or awareness of cash management practices and their behavior. For example, 90 percent of Rwandans say they "prefer to budget carefully;" but only 39 percent of Rwandans say they actually budget; and many of those that do budget do not follow that budget. Furthermore, fewer than half of Rwandans know how much they spent in the previous week, suggesting that many are not tracking their money. The survey data suggest a reason why Rwandans' behavior may fall short of their aspirations: their incomes are not only low but they fluctuate significantly. This survey finding is consistent with the qualitative data from the Rwanda Financial Diaries study, and suggests that a major challenge facing the NFES in Rwanda is the challenging economic condition of many households in the country. In particular, it may be possible to change knowledge, skills, and

attitudes, but it may be harder to change behavior when external circumstances undermine Rwandans' efforts to change their behavior.

In the case of future planning, 61 percent of Rwandans have a financial goal for "the things you want to achieve in life," and, of those 61 percent, 80 percent say they have a plan for achieving that goal, though only 44 percent keep to that plan. These data suggest a closer relationship between awareness of the need for a plan and having a plan, but, again, keeping to the plan is a challenge.

The financial services data suggest that Rwandans use a mix of informal and formal financial services to manage their money. There is a prevalence of loans from family and friends and store credit, which can have both positive and negative consequences for the borrower. On the positive side, loans from family and friends and store credit are usually in small amounts that flexibly meet the fluctuating financial needs of low-income Rwandans. On the negative side, borrowing from family and friends or on store credit can result in social stress. In contrast, banks are where Rwandans go for "big money." Banks have an opportunity to serve Rwandans with more appropriate financial services that meet their day-to-day needs, but do not seem to be doing so currently.

These last findings about financial services are important in understanding the limitations of the NFES in contributing to the improvement of the financial capabilities of Rwandans. Capabilities will increase with new knowledge, skills, attitudes, and behavior, but they will not achieve their full potential if there are no changes in available financial services. As a result, Rwanda's financial inclusion strategy is critical to the success of the NFES.

Poor financial literacy rate in Rwanda has affected economic growth as the citizen fail to diversify risk involved in financial management and inefficient portfolio allocation which leads to low level of savings and investment among the citizen. The purpose of this study, therefore, was the role of financial literacy on Loan repayment among small and medium entrepreneurs in Rwanda. A case study of Urwego Opportunity Bank (UOB).

## **Objectives**

### **General objective**

The main purpose of this study is to examine the role of financial literacy on Loan repayment among small and medium entrepreneurs in Rwanda. A case study of Urwego Opportunity Bank (UOB)

### **Specific Objectives**

- a. To determine how book keeping skills influence on loan repayment among small and medium entrepreneurs in Rwanda.
- b. To determine the effects of credit management skills on loan repayment among small and medium entrepreneurs in Rwanda.
- c. To examine how budgeting skills affect loan repayment among small and medium entrepreneurs in Rwanda



## **Research Question**

1. What are the effect of book keeping skills influence on loan repayment among small and medium entrepreneurs in Rwanda?
2. What is the role of credit management skills on loan repayment among small and medium entrepreneurs in Rwanda?
3. What is the role of budgeting skills affect loan repayment among small and medium entrepreneurs in Rwanda?

## **LITERATURE REVIEW**

### **Introduction**

A lot of research has been devoted to the study of the determinants and implications of financial literacy in different countries. In this study we focus on two major issues of financial literacy: its determinants and consequences for saving behavior. The literature reviews various definitions of financial literacy, approaches and factors to explain to assess financial literacy. Finally, we describe the theoretical and empirical work on the relationship between financial knowledge and loan repayment.

### **Theoretical Review**

#### **The theoretical framework of financial literacy**

A Theoretical Framework for Financial Literacy The conventional microeconomic approach to saving and consumption decisions posits that a fully rational and well-informed individual will consume less than his income in times of high earnings, thus saving to support consumption when income falls (e.g., after retirement). Starting with Modigliani and Brumberg (1954) and Friedman (1957), the consumer is posited to arrange his optimal saving and decumulation patterns to smooth marginal utility over his lifetime. Many studies have shown how such a life cycle optimization process can be shaped by consumer preferences (e.g., risk aversion and discount rates), the economic environment (e.g., risky returns on investments and liquidity constraints), and social safety net benefits (e.g., the availability and generosity of welfare schemes and Social Security benefits), among other features

These microeconomic models generally assume that individuals can formulate and execute saving and spend-down plans, which requires them to have the capacity to undertake complex economic calculations and to have expertise in dealing with financial markets. As we show in detail below, however, few people seem to have much financial knowledge. Moreover, acquiring such knowledge is likely to come at a cost. In the past, when retirement pensions were designed and implemented by governments, individual workers devoted very little attention to their plan details. Today, by contrast, since saving, investment, and decumulation for retirement are occurring in an increasingly personalized pension environment, the gaps between modeling and reality are worth exploring, so as to better evaluate where the theory can be enriched, and how policy efforts can be better targeted. Though there is a substantial theoretical and empirical body of work on the economics of education,<sup>5</sup> far less attention has been devoted to the question of how people acquire and deploy financial literacy. In the last few years, however, a few papers have begun to examine the decision to acquire financial literacy and to study the links between financial knowledge, saving, and investment behavior

(Delavande, Rohwedder, and Willis 2008; Jappelli and Padula 2013; Hsu 2011; and Lusardi, Michaud, and Mitchell 2013).<sup>6</sup> For instance, Delavande, Rohwedder, and Willis (2008) present a simple two-period model of saving and portfolio allocation across safe bonds and risky stocks, allowing for the acquisition of human capital in the form of financial knowledge (à la BenPorath 1967, and Becker 1975). That work posits that individuals will optimally elect to invest in financial knowledge to gain access to higher-return assets: this training helps them identify better-performing assets and/ or hire financial advisers who can reduce investment expenses. Hsu (2011) uses a similar approach in an intrahousehold setting where husbands specialize in the acquisition of financial knowledge, while wives increase their acquisition of financial knowledge mostly when it becomes relevant (such as just prior to the death of their spouses). Jappelli and Padula (2013) also consider a two-period model but additionally sketch a multiperiod life cycle model with financial literacy endogenously determined. They predict that financial literacy and wealth will be strongly correlated over the life cycle, with both rising until retirement and falling thereafter. They also suggest that, in countries with generous Social Security benefits, there will be fewer incentives to save and accumulate wealth and, in turn, less reason to invest in financial literacy.

### **Assessment of financial literacy theory**

In the wake of the global financial crisis, policymakers around the world have expressed deep concern about widespread lack of financial knowledge. Efforts are also underway to fill these gaps with specific programs to “identify individuals who are most in need of financial education and the best ways to improve that education” (OECD,2005).

Ben Bernanke (2011) has similarly opined: In our dynamic and complex financial marketplace, financial education must be a life-long pursuit that enables consumers of all ages and economic positions to stay attuned to changes in their financial needs and circumstances and to take advantage of products and services that best meet their goals. Well-informed consumers, who can serve as their own advocates, are one of the best lines of defense against the proliferation of financial products and services that are unsuitable, unnecessarily costly, or abusive. Despite policy agreement on the need to fill these gaps, analysts and policymakers have much to learn about the most cost- effective ways to build financial knowledge in the population at large. The literature to date has showed that many people around the world are financially illiterate, as we have sketched here. Econometric models and experiments have done much to confirm the causal impact of financial literacy on economic decision making, and to separately identify this effect from other factors, including education and cognitive ability. Research on efforts to enhance financial literacy suggest that some interventions work well, but additional experimental work is critical to control for endogeneity and confirm causality. Several key tasks remain. First, theoretical models of saving and financial decision making must be further enriched to incorporate the fact that financial knowledge is a form of human capital. Second, efforts to better measure financial education are likely to pay off, including gathering information on teachers, training programs, and material covered.

Third, outcomes beyond what have been studied to date are likely to be of interest, including borrowing for student loans, investment in health, reverse mortgage patterns, and when to claim Social Security benefits—decisions that all have far-reaching economic consequences. Additional experimental research

Would be useful, to learn more about the directions of causality between financial knowledge and economic well-being, though the early results offered here are promising. While the costs

of raising financial literacy are likely to be substantial, so too are the costs of being liquidity-constrained, over indebted, and poor.

There are two major approaches to measure financial literacy: self-assessments and objective measures like test scores. Under the first approach respondents are asked to evaluate their literacy skills as well as to provide information about their attitudes toward financial decision, knowledge and information. This approach has been used by Jappelli (2010), who performed an international comparison of literacy levels among 55 countries based on the indicator of financial literacy provided by IMD World Competitive Yearbook (WCY). The indicator is computed based on the survey of middle and top managers and among the population is generally high.

Jappelli (2010) shows that this indicator is an acceptable proxy for financial sophistication since it is strongly correlated with the objective measures provided by the Survey of Health, Age and Retirement in Europe (SHARE). The second approach of measuring financial literacy relies on the objective test which assesses the respondents' knowledge of financial terms, understanding of various financial concepts and ability to apply numerical skills in particular situations related to finance. The objective test has been found to better assess the respondents' financial knowledge than self-assessment (OECD, 2005). The objective tests used by various researchers differ in the way they measure financial literacy.

The most popular test is based on three questions developed by Lusardi and Mitchell (2006), which they designed for 2004 Health and Retirements Survey (HRS) in the United States. Those three questions tested the respondents' understanding of compound interest, inflation and risk diversification, concepts vital for educated saving decisions and investment activity. The methodology of Lusardi and Mitchell (2006) has become widely used by researchers globally.

Other researchers use tests that focus on measuring financial skills among students. Mandell and Klein (2007) use the questions of the Jump start Coalition for Personal Financial Literacy Survey conducted in the United States twice a year.

This survey is a test for high-school students, which contains multiple-choice questions on income, saving and investing, money management and spending and credit. Chen and Volpe (1998, 2002) and Volpe et al. (1996) measure financial literacy among the US college students based on their responses to questions on general financial knowledge, insurance, investing, saving and borrowing.

As the next step of this literature review we present the overview of the empirical studies focusing on the factors that explain financial literacy.

The aim of the Financial Literacy is to increase the members' assets, reduce liabilities and therefore increase their net-worth. Lack of business and management skills can magnify financial barriers for SMEs. Low levels of financial literacy can prevent SMEs from adequately assessing and understanding different financing options, and from navigating complex loan application procedures. Similarly, the fact that SMEs' accounting and financial statements are often not transparent makes them risky borrowers and thus less attractive to lenders. Capacity building of SMEs in terms of preparing financial statements and business plans, as well as improving their financial literacy and management training, is shown to have positive impact on SME development. Furthermore, strengthening the horizontal linkages with other SMEs



and vertical linkages with larger firms would improve SMEs' market access (Hogarth et al. 2002).

## **Empirical review**

### **Increased individual responsibility**

The number of financial decisions that individuals have to make is increasing as a consequence of changes in the market and the economy. For instance, longer life expectancy means individuals need to ensure that they accumulate savings to cover much longer periods of retirement. People also need to assume more responsibility for funding personal or family healthcare needs. Moreover, increasing education costs make it important for parents to plan and invest adequately for their children's education. Even when individuals use the services of financial intermediaries and advisors, they need to understand what is being offered or advised. The individual is responsible for the financial product he or she decides to purchase, and the individual will face all the consequences of the choice. While these trends are most obvious in developed countries, similar issues are also emerging in many developing economies. Individuals everywhere need to be financially literate to make informed and responsible decisions. (Mandell and Klein 2007)

### **Increased demand for financial products and services**

Economic and technological developments have brought greater global connectedness and massive changes in communications and financial transactions, as well as in social interactions and customer behavior. Such changes have made it important that individuals be able to interact with financial providers. In particular, consumers often need access to financial services (including banks and other providers such as Post Offices) in order to make receive electronic payments like income, remittances and online transactions, as well as to conduct face-to-face transactions in societies where cash and cheques are no longer favored. Those who cannot access such services often pay more for cash transactions, using informal financial services such as money lenders or cheque cashers (Kempson, Collard, & Moore, 2005). All of these trends have transferred the responsibility of major financial decisions to individuals. At the same time, they have both enlarged the options for the majority of the population (including new financial consumers) and increased the level of complexity they face. Against this backdrop, individuals are expected to be sufficiently literate to take the necessary steps to protect themselves and their relatives and ensure their financial well-being.

### **Potential benefits of financial literacy**

Existing empirical evidence shows that adults in both developed and emerging economies who have been exposed to financial education are subsequently more likely than others to save and plan for retirement (Bernheim, Garrett, & Maki, 2011). This evidence suggests a direct causal link between financial education and outcomes; it indicates that improved levels of financial literacy can lead to positive behavior change.

Other research, stemming largely from developed countries, and the United States in particular, indicates a number of potential benefits of being financially literate. There is mounting evidence that those with higher financial literacy are better able to manage their money, participate in the stock market and perform better on their portfolio choice, and that they are more likely to choose mutual funds with lower fees (Hastings & Tejada-Ashton, 2008).

Moreover, those who have greater financial knowledge are more likely to accumulate higher amounts of wealth.

Higher levels of financial literacy have been found to be related not only to asset building but also to debt and debt management, with more financially literate individuals opting for less costly mortgages and avoiding high interest payments and additional fees (Gerardi, et al., 2010).

In addition to the benefits identified for individuals, financial literacy is important to economic and financial stability for a number of reasons. Financially literate consumers can make more informed decisions and demand higher quality services, which will encourage competition and innovation in the market (Moore, 2005). They are also less likely to react to market conditions in unpredictable ways, less likely to make unfounded complaints and more likely to take appropriate steps to manage the risks transferred to them. All of these factors will lead to a more efficient financial services sector and potentially less costly financial regulatory and supervisory requirements. They can also ultimately help in reducing government aid (and taxation) aimed at assisting those who have taken unwise financial decisions – or no decision at all (Cole, Sampson, & Zia, 2010).

### **Importance of Financial Literacy:**

Financial literacy has assumed greater importance in the recent years, as financial markets have become increasingly complex and as there is information asymmetry between markets and the common person, leading to the latter finding increasingly difficult to make informed choices.

Financial literacy is considered an important adjunct for promoting financial inclusion and ultimately, financial stability. Both developed and developing countries, therefore, are focusing on programs for financial literacy/education. In India, the need for financial literacy is even greater considering the low levels of the formal financial loop (Lusardi & Tufano, 2009a, 2009b).

In the context of financial inclusion, the scope of financial literacy is relatively broader and it acquires greater significance since it could be an important factor in the very access of such excluded groups to finance. Further, the process of educating may invariably involve addressing deep entrenched behavioral and psychological factors that could be major barriers. In countries with diverse social and economic profile like India, financial literacy is particularly relevant for people who are resource-poor and who operate at the margin and are vulnerable to persistent downward financial pressures. With no established banking relationship, the unbanked poor are pushed towards expensive alternatives (Lusardi, 2009). The challenges of household cash management under difficult circumstances with few resources to fall back on could be accentuated by the lack of skills or knowledge to make well-informed financial decisions. Financial literacy can help them prepare ahead of time for life cycle needs and deal with unexpected emergencies without assuming unnecessary debt. To understand financial planning, a person should be financially literate to know the importance of preparing household budgets, cash-flow management and asset allocation to meet financial goals (Lusardi & Mitchell, 2011).

### **Determinants of financial literacy**

A vast majority of studies on the determinants of financial literacy have been done for developed countries such as the United States, Italy, Australia and Sweden. Only one paper of

Cole et al. (2008) focuses on the determinants of financial literacy in developing countries, particularly in India and Indonesia.

Among factors that were found significant in various studies are age, gender, level of education, major of studies, occupation, region, area of residence, race and ethnical background and wealth. Let's focus on each of these determinants and the empirical evidence behind it.

Most of the studies have found age to be significant factor in explaining financial literacy. While studying financial literacy in Sweden (Almenberg and Save-Sodrebergh, 2011) observe that the highest levels of literacy are demonstrated by those of 35-50 and those older than 65 were found to perform the worst. Lusardi and Mitchell (2006) discover that among the US retirees Baby-Boomers (those aged 51-56 in 2004) are the least financially literate. Cole et al. (2008) find that age in significant factor to explain literacy in Indian an Indonesia. Age is found to have a non-linear effect and speaks at 40 years in India and 45 in Indonesia.

Some researchers find that those who completed University or college degree are more likely to be financially knowledge than those with low education level (Cole et al. (2008).

In addition to that Mandell (2004, 2008) has shown that the correlation between literacy and education is present at the early stages of lifecycle. He has discovered that children of college graduates perform better on numerical test. Several studies go even further and show that there is a correlation between financial literacy and study major. There is considerable evidence that people who studies economics or business is more likely to be financially knowledge. This argument was supported by research of Lusardi and Mitchell (2007).

### Conceptual framework

#### INDEPENDENT VARIABLES

##### Book keeping skills

- Cash flow mgt
- Debtors and creditors mgt
- Maintenance of payroll

##### Credit management skills

- Interest rate
- Loan period
- Amount of the loan

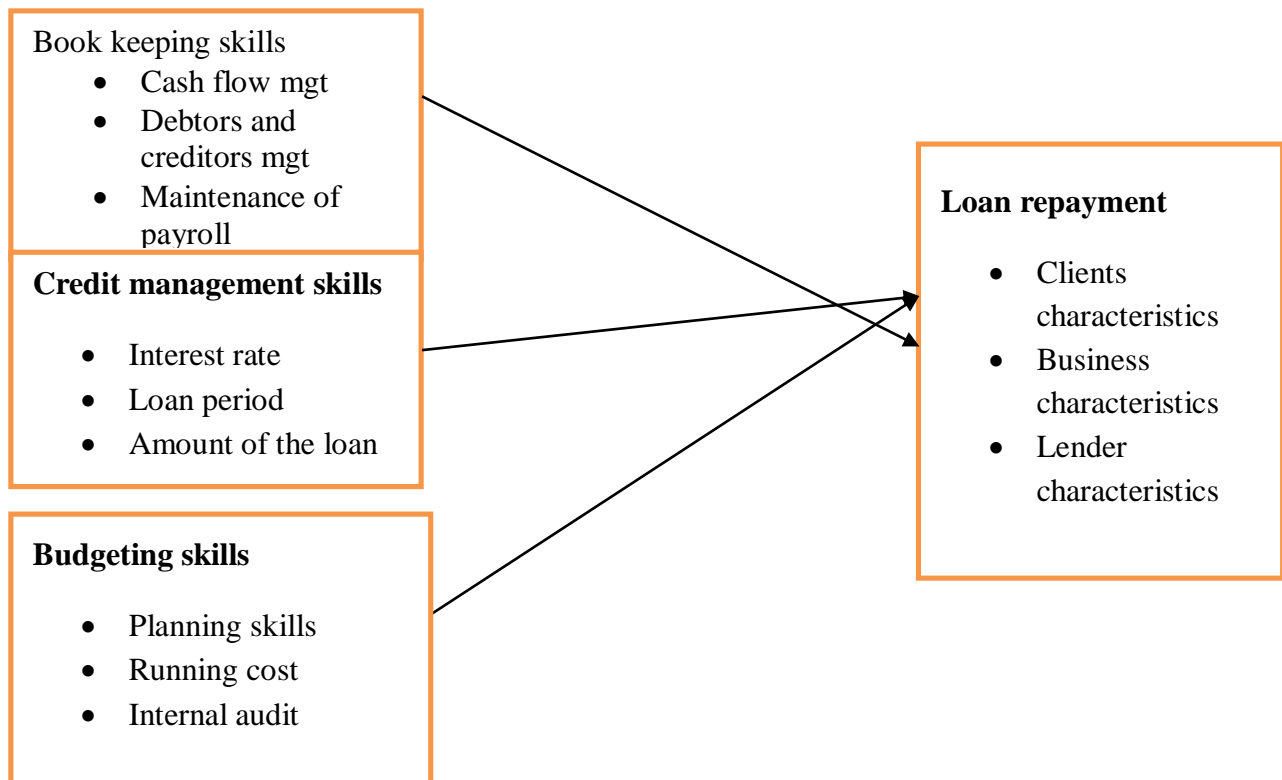
##### Budgeting skills

- Planning skills
- Running cost
- Internal audit

#### DEPENDENT VARIABLE

##### Loan repayment

- Clients characteristics
- Business characteristics
- Lender characteristics



Researchers have probed the impact of financial knowledge on a range of behaviors, such as savings, insurance, retirement planning, (financial) market participation, bank account ownership, investments, debt management, and financial practices. Some studies also explore the effects of financial education provided in the workplace on savings or contributions to pension funds. Few studies assess the impact of financial literacy in developing countries. Tustin (2010) evaluates the role of a financial literacy program on savings in Limpopo province (South Africa), using three survey questions, and finds self-reported effects of financial literacy training on saving behavior. Landerretche and Martínez (2012) similarly find that financial literacy increases savings in private pension plans in Chile. Among the studies that examine the role of financial literacy on bank account ownership.

FinScope data, assert there is no robust relationship, but Cole, Sampson and Zia (2011) indicate an impact of a two-hour financial literacy training session in India and Indonesia. The Indonesian study, which featured a randomized field experiment, has constituted the only published experimental evaluation in a developing country thus far. Although they find no impact of the training for the entire population, they suggest that the likelihood of opening a bank account increased among the subsample of uneducated, less financially literate households.

### **Book keeping in SMES**

Many new business owners are daunted by the mere idea of bookkeeping and accounting. But in reality, both are pretty simple. Bookkeeping and accounting share two basic goals: to keep track of income and expenses, this improves chances of making a profit, and to collect the financial information necessary for filing various tax returns. There is no requirement that records be kept in any particular way. As long as your records accurately reflect the business's income and expenses.

There is a requirement, however, that some businesses use a certain method of crediting their accounts: the cash method or accrual method. Depending on the size of the business and amount of sales, one can create own ledgers and reports, or rely on accounting (Williams *et al.*, 1993). An accounting system records, retains and reproduces financial information relating to financial transaction flows and financial position. Financial transaction flows encompass primarily inflows on account of incomes and outflows on account of expenses. Elements of financial position, including property, money received, or money spent, are assigned to one of the primary groups i.e. assets, liabilities, and equity. Within these primary groups each distinctive asset, liability, income and expense is represented by respective "account". An account is simply a record of financial inflows and outflows in relation to the respective asset, liability, income or expense. Income and expense accounts are considered temporary accounts, since they represent only the inflows and outflows absorbed in the financial-position elements on completion of the time period (Williams *et al.*, 2008).

There are account types that include real accounts which represent physically tangible things in the real world and certain intangible things not having any physical existence. Examples of tangible things are: plant and machinery, furniture and fixtures, computers and information

### **Credit Management**

Idowu (2010) claim that a major barrier to rapid development of the small and medium enterprises sector is a shortage of both debt and equity financing. Accessing finance has been

identified as a key element for small and medium enterprises to succeed in their drive to build productive capacity, to compete, to create jobs and to contribute to poverty alleviation in developing countries. Small business especially in Africa can rarely meet the conditions set by financial institutions, which see small and medium enterprises as a risk because of poor guarantees and lack of information about their ability to repay loans Idowu (2010). Without finance, small and medium enterprises cannot acquire or absorb new technologies nor can they expand to compete in global markets or even strike business linkages with larger firms.

Poor management and accounting practices are hampering the ability of smaller enterprises to raise finance. This is coupled with the fact that small businesses are mostly owned by individuals whose personal lifestyle may have far reaching effects on the operations and sustainability of such businesses according to (Idowu, 2010).

Given the myriad of challenges faced by SMEs and the central role played by their managers, who are often the owners of the business, having a sound credit management skills cannot be over emphasized. A number of researchers such as García (2005) and Pansiri and Temtime (2008) have found that a lack of appropriate skills for SME owner managers is one of the main causes of failure for SMEs. Fatoki and Odeyemi (2010a) define managerial competencies as sets of skills, attitudes, behaviours and knowledge that contribute to the effectiveness of an individual. According to these two authors, managerial skills play a key role in the success of small enterprises as they determine its growth. Likewise, (Fatoki and Asah, 2011) point out that lack of managerial skills, personal qualities and skills are major contributors to the failure of firms.

### **Budgeting Skills**

SMEs are a large contributor to global economies and their importance is noted in every country. SMEs make a substantial contribution to the economy in terms of job creation, GDP, investment and social welfare (Nieman, 2006). According to the African Development Bank (2005), SMEs contribute more than 55% of total employment and 22% of the Gross Domestic Product in South Africa. Since they are so important to the economy, their creation is very important as it a positive move towards economic growth. However there is a need to keep these SMEs in operation and avoid failure. Lack of skills has been a major challenge to the SMEs (Smith and Perks, 2006) and skills acquisition through training can provide a long lasting solution to the survival battle of the SMEs. Due to various reasons, some SMEs end up closing down business at an early stage. This could result from the view that the entrepreneur miscalculated the opportunity, and unforeseen threats that are too big for the business to overturn, lack of essential information on running the business and lack of proper funding of the business (Chimucheka and Rungani, 2011).

There are a lot of other issues that may appear insignificant when the business is launched but will overpowering the business at the end, and eventually leading to its downfall. Seemingly there is a lot that needs to be done in all fields that may prevent the loss of jobs, revenue and increase of poverty in the communities by preventing failure in the SMEs. Apart from the financial problems that may affect the businesses, the input of the owner and the business skills (Smith and Perks, 2006) are very important in keeping the business afloat.

Due to various reasons, some SMEs end up closing down business at an early stage. This could result from the view that the entrepreneur miscalculated the opportunity, and unforeseen threats that are too big for the business to overturn, lack of essential information on running the



business and lack of proper funding of the business (Chimucheka and Rungani, 2011; Monk, 2000). There are a lot of other issues that may appear insignificant when the business is launched but will overpowering the business at the end, and eventually leading to its downfall. Seemingly there is a lot that needs to be done in all fields that may prevent the loss of jobs, revenue and increase of poverty in the communities by preventing failure in the SMEs. Apart from the financial problems that may affect the businesses, the input of the owner and the business skills (Smith and Perks, 2006) are very important in keeping the business afloat.

### **Summary of Literature**

Access to finance correlates robustly with poverty reduction, but literature work suggests that improved access alone may not be enough to improve consumers' economic performance. Financial literacy emerges as an increasingly important component of financial reform efforts. The perceived problem of limited financial literacy has triggered governments, firms, and NGOs to allocate considerable resources to financial literacy programs, designed to target millions of potential beneficiaries.

This study was guided by financial literacy theory of financial management. Financial literacy theory argues that the behavior of people with a high level of financial literacy might depend on the prevalence of two thinking styles according to dual-process theories: intuition and cognition. Dual-process theories embrace the idea that decisions can be driven by both intuitive and cognitive process. Dual process theories have been applied to several fields, including reasoning and social cognition (Evans 2008). Financial literacy has attracted attention in both developed and developing economies, and has elicited much interest in the recent past with the rapid change in the finance landscape. Financial literacy covers the combination of investors' understanding of financial products and concepts and their ability and confidence to appreciate financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being (Atkinson & Messy, 2005).

Financial literacy empowers investors by educating them to acquire relevant knowledge and skills in financial management. Financial knowledge helps to overcome most difficulties in advanced credit markets. Financial literacy allows the investors to encounter difficult financial times, through strategies that mitigate risk such as accumulating savings, diversifying assets, and purchasing insurance. More importantly, financial literacy enhances decision making processes such as payment of bills on time, proper debt management which improves the credit worthiness of potential borrowers to support livelihoods, economic growth, sound financial systems, and poverty reduction. Financial literacy leads to more effective use of financial products and services, greater control of one's financial future and reduced vulnerability to overzealous retailers. Facing an educated lot, financial regulators are forced to improve the efficiency and quality of financial services.

### **Critique of Existing Literature**

In the strand of literature assessing the effect of financial literacy on loan repayment, some aspects deserve more attention, such as saving behavior, investment, budgeting, loan repayment. It is sometimes assumed that higher financial literacy can grant substantial decision making. However, this is not been verified empirically. The returns to financial literacy deserve further attention. (Lusardi, 2007)

In the strand of literature assessing the effect of financial literacy on loan repayment, some aspects deserve more attention, such as debt management, including mortgages and credit cards, and loan decisions. It is sometimes assumed that higher financial literacy can grant higher risk-adjusted returns on financial investments (Delavande et al., 2008). However, this is not been verified empirically. The returns to financial literacy deserve further attention.

### **Literature Gaps**

The issue of the direction of causality between financial literacy and financial behavior is far from being resolved. So far has not emerged a “mainstream” instrument that could be included in financial literacy surveys around the world.

From the studies conducted, there is mixed evidence about the effects of financial literacy on loan repayment. It is therefore, important for bankers, bank regulators, supervisors, investors and researchers to understand how financial literacy affects the loan repayment. The researcher’s main purpose in this study was to fill this significant gap by providing systematic analysis of the role of financial literacy on loan repayment. Additionally, few researches have been conducted on financial literacy and loan repayment in Rwanda.

## **RESEARCH METHODOLOGY**

### **Introduction**

This chapter discusses the research methodology used for the study. Research Methodology gives details regarding the procedures used in conducting the study. The research design, target population, data collection and analysis methods are elaborated.

### **Research Design**

This study was a descriptive-correlation research design. The study was designed to determine the role of financial literacy on loan repayment among small and medium entrepreneurs in Urwego Opportunity Bank in Rwanda. A survey research questionnaire that combines both open ended and closed ended questions was used. Bhalta Chargy (2003) defines descriptive research as a fact finding approach generating across sectional study of the present situation. It ascertains and describes these characteristics of the variables of interest in a situation. It is restricted to a fact finding and may result in the formation of important principle of knowledge and solutions to significant problems. According to Ary et al. (2002), surveys allow the researcher to summarize the characteristics of different groups or to measure their opinions towards some issues.

### **Target Population**

Grinnell and Williams (1990) defined population as the totality of persons or objects with which a study is concerned. The target population of this study was 450 traditional group, small and medium entrepreneurs customers of 4 branches in Nyarugenge district of Urwego Opportunity Bank (UOB).

### **Sampling frame**

A list was obtained from the four (4) branch of Urwego Opportunity Branch, showing the number of small and medium enterprises grouped in traditional group which undertake different business activities like general trade, services and manufacturing.

### **Sampling Method and Sample Size**

Sampling techniques provides a range of methods that enable you to reduce the amount of data you need to collect by considering only data from a subgroup rather than all cases or elements.

A non-probability sampling method mainly Purposive sampling method was used in the sample size of respondents who participated in the study. It is commonly called a judgmental sample is one that is selected based on the knowledge of a target group and the purpose of the study. The subjects are selected because of some specific characteristic the research is looking for, and depending what is investigated.

According to Kothari,(2004) 10% of the sample size is enough to conduct a research.The sample size was 10% of the target population and this was 45 small and medium entrepreneurs and customers of 4 branches of which the first, second, third branches which was composed of 100 clients each, I took 10% each ( $10 \times 3 = 30$ ).the last group which counted 150 client I took 15 which carry 45 in total.

### **Data Collection**

The researcher collected only primary data, but also document review was done. A structured questionnaire was administered to the 45 small and medium entrepreneurs of 4 branches of Urwego Opportunity Bank. Efforts were made to obtain at least a recommended 75% response rate (Ary et al, 2002). These include organizing meetings prior to the survey and motivating respondents to participate and doing follow ups.

### **Instruments**

In this study, both closed ended and open ended questions was used. All questionnaires was translated into Kinyarwanda first. According to Mariam and Simpson (1989), closed-ended questions are advantageous because responses are easily tabulate and analyzes and respondents can answer the questions easily and quickly.

### **Validity and Reliability of Instruments**

Prior to conducting the study, the instruments were assessed by the research supervisors. These research supervisors mainly assessed content and face validity of the instruments. Validity is defined as the extent to which the instruments measure what it is intended to measure (Fraenkel & Wallen, 1996). Reliability was determined by a pilot test.

### **Data Analysis**

After all primary data was collected; the researcher classified it in accordance with variables. Excel spread sheet and Statistical package for social sciences (SPSS) software was used to generate descriptive statistics, pie charts, bar graphs, and percentages and frequencies for variables and statistical tests.

The researcher used correlation test, whereby the variables of the interest here are financial literacy which is the independent variable and loan repayment the dependent variable. Thus the tentative hypothesis is that the higher the level of financial literacy results in better loan repayment other things held constant.

## **DATA FINDINGS, ANALYSIS AND PRESENTATION**

### **Introduction**

This chapter presents the data findings on the role of financial literacy on loan repayment. It present results from qualitative and quantitative analysis on the data collected from questionnaires and secondary sources such as Urwego Opportunity Bank (UOB) reports, circulars, legislation, annual reports, journals and media.

The researcher took a survey of selected members from the group who are clients of UOB. This method was chosen because it allows for an in-depth investigation and places more emphasis on a full contextual analysis of fewer events or conditions and their interrelations.

A prominence on details provides valuable insight for problem solving and strategy.

The study was guided by the following research objectives;

- a. To determine the influence of book keeping skills on loan repayment among small and medium entrepreneurs in Rwanda.
- b. To determine the effects of credit management skills on loan repayment among small and medium entrepreneurs in Rwanda.
- c. To examine how budgeting skills affect loan repayment among small and medium entrepreneurs in Rwanda.

### **Presentation of Findings**

The study was conducted among 450 customers of traditional group in four branches in Nyarugenge district. Through purposive sampling, 45 respondents were selected to participate in the study. All of the respondents were issued with questionnaires and 41 respondents returned all the questionnaires dully filled-in. This makes a response rate of 91 percent. This response rate was fair and representative.

This commendable response rate was made possible after the researcher administered the questionnaires through handing out the questionnaires and made further follow up to remind the respondents through telephone call to fill-in questionnaires. This study made use of frequencies (absolute and relative) on single response questions. These were then presented on tables, graphs and charts as appropriate with explanations being given in prose. Findings from open-ended questions were also presented in prose.

### **Demographic Information**

#### **Respondent Gender**

Respondents were required to state their gender. According to the findings, majority of sample (n=41) and 51 percent were male (n=21) while 49 percent were female (n=20). This depicts that the study had more male respondents than female. The findings reveal that majority of entrepreneurs in UOB are men. However, SMES in UOB has exceeded the constitutional requirement that management position should be thirty percent female representation.

**Table 1. Frequency distribution of respondents with respect to gender**

<b>GENDER</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
MALE	21	51
FEMALE	20	49
<b>TOTAL</b>	<b>41</b>	<b>100</b>

**Education level of respondents in UOB**

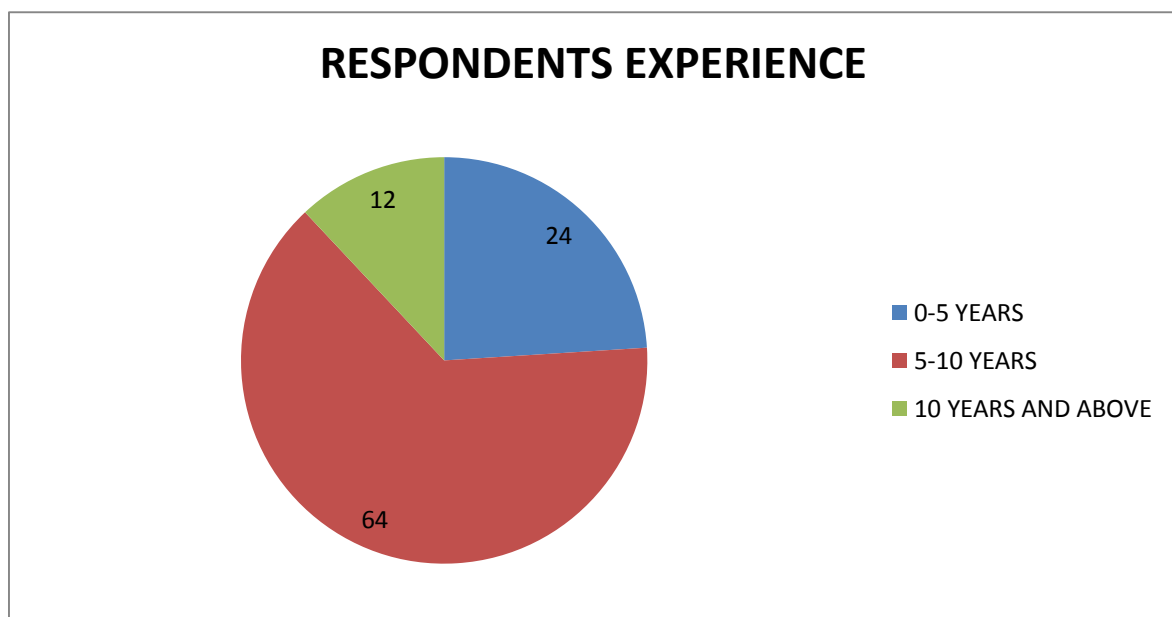
The distribution shows that the respondents have received elementary education, and university level is very rare due to the fact that it is very easy to get a job with a university degree in Rwanda compared to the other level like advanced level. At least 75 percent has completed their advanced level (A' level) while 25 percent completed primary education.

**Table 2. Distribution of education respondent's level across four branches in Nyarugenge district**

<b>EDUCATION</b>	<b>FREQUENCY</b>	<b>PERCENTAGE</b>
PRIMARY	10	25
SECONDARY	30	73
UNIVERSITY	1	2
<b>TOTAL</b>	<b>41</b>	<b>100</b>

**Experience of respondents in enterprises**

An overview of respondents experience in entrepreneurship shows that 10(24%) of respondents in Nyarugenge region have 0-5 years' experience while only 26(64%) have 5-10 years. 5(12%) have 10-15 years' experience. This overview is shown in figure.

*Figure 1.: Respondents experience*



### Age of the respondents

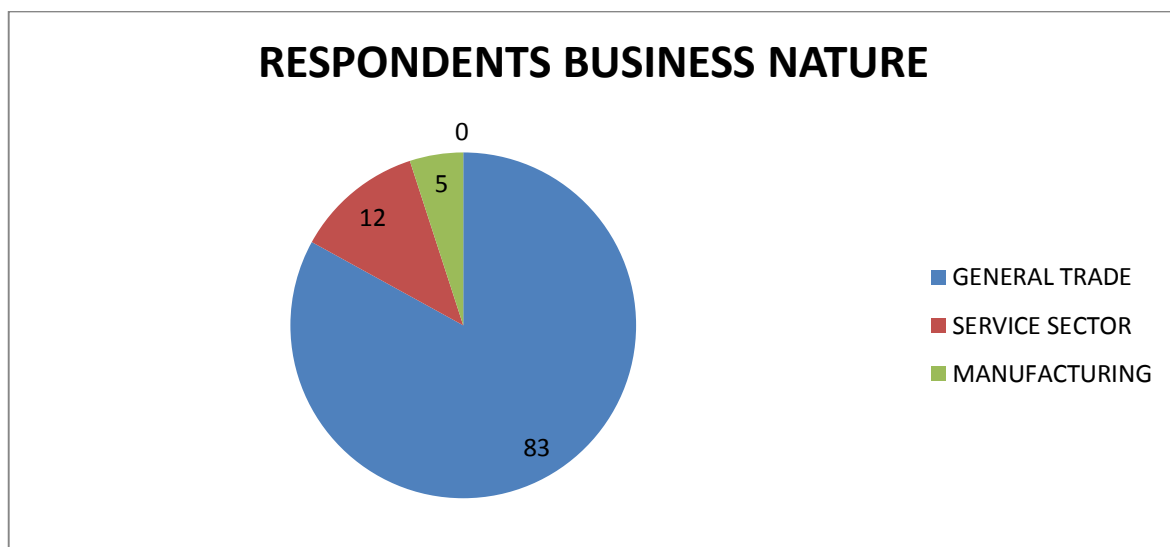
In the survey, the respondents were asked to state the age category they were in. Out of 41 entrepreneurs, 20 (49%) of the respondents were between 26-35 years of age, 11 (27%) of the respondents were between 36-45 years of age, 7(17%) of the respondents were between 16-25 years of age, 2(5%) of them were between 46-55 years of age, while only 1 (2%) were over 50 years old. This result illustrates that SME owners are generally active between the ages of 18-50. It is also in agreement with the findings by Price (2006) who maintained that there are two natural age peaks correlated to entrepreneurship, namely the late twenties and mid-forties. The study findings are almost similar to a study done in America by Muijanack, Vroonhof and Zoetmer (2003) who determined that the optimum age for entrepreneurs was 25-35. The age of 25-35 is therefore the age at which entrepreneurial capacity of the respondents was active as shown in Table 3.

**TABLE 3. Group age of the respondents**

AGE	AGE GOUP	FREQUENCY	PERCENTAGE
	16-25	7	17
	26-35	20	49
	36-45	11	27
	46-55	2	5
	OVER 56	1	2
	<b>TOTAL</b>	<b>41</b>	<b>100</b>

### Business nature of respondents

The study investigated the nature of the business that the respondents were running. The descriptive statistics also show that majority 34(83%) of the target enterprises were general trade enterprises, followed by service sector enterprises at 5(12%), and manufacturing at 2(5%) as shown in figure 2. below. This could be attributed to the fact that trade accommodates diverse generalized skills and a relatively lower initial investment capital as compared to manufacturing and service departments thereby reducing barriers to entry (Moore *et al.*, 2008).



*Figure 2: Nature of Business*

### Current Position of the Respondents in the Business

Thirty six (89%) of the respondents indicated that they owned their SMEs. However, 3(7%) of the respondents were partners, 2(5%) were Co-owners. This result is in agreement to a study that was conducted in Cyprus by Bruce et al. (1998) which showed that more than eighty percent (80%) of small enterprises are family operated or managed.

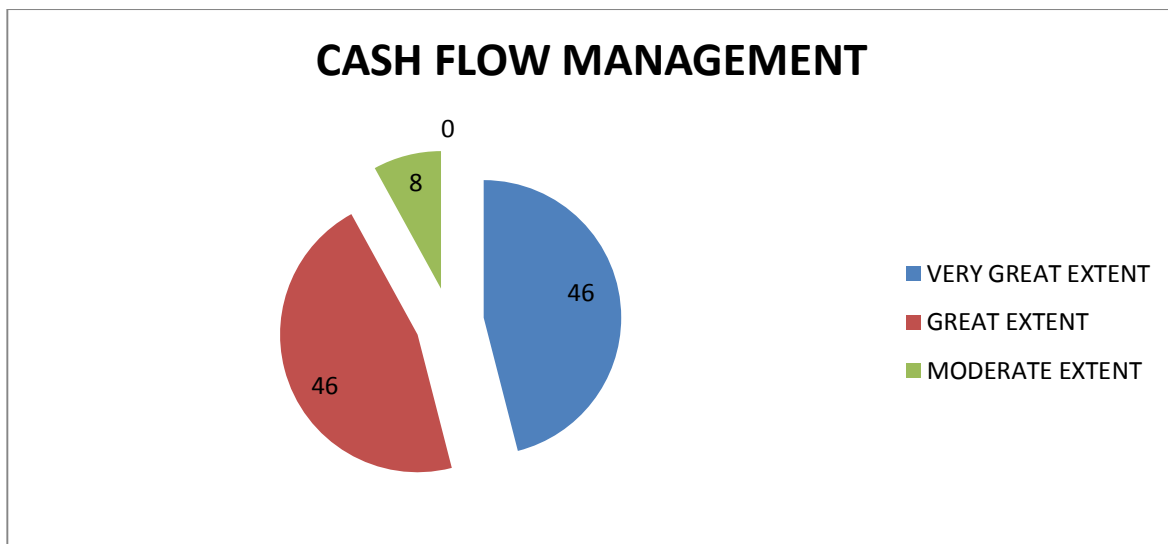
**Table 4. Current Position of the Respondents in the Business**

POSITION	FREQUENCY	PERCENTAGE
OWNERS	36	89
PARTNERS	3	7
CO-OWNER	2	4
<b>TOTAL</b>	<b>41</b>	<b>100</b>

### Role of book keeping skills on loan repayment

#### The role of book keeping skills on cash flow management

From the returned questionnaire (n=41) concurred that book keeping skills had an effect on cash flow management. Figure 3. Showed that forty six percent of the respondents in four branch of Nyarugenge district agreed that bookkeeping skills affect cash flow management to a great extent and a very great extent respectively while 8 percent argued that the role was moderate.



*Figure 3. Role of book keeping skills on cash flow management*

#### Book keeping skills on maintaining debtors and creditors

The findings established that the beneficiaries had acquired financial literacy skills in book keeping that enabled them to maintain debtors and creditors ledgers resulting in a positive business expansion prospects. From figure 4., 11(27)% of the respondents indicated that book keeping skills influence the maintenance of debtors and creditors to a very great extent, 10(24)% indicated that book keeping influences the maintenance of debtors and creditors to a

great extent, 9(22) % indicated that book keeping influence the maintenance of debtors and creditors to a moderate extent, 6(15)% indicated that book keeping influence the maintenance of debtors and creditors to a low extent while 5(12%) indicated that book keeping influence the maintenance of debtors and creditors to a very low extent.

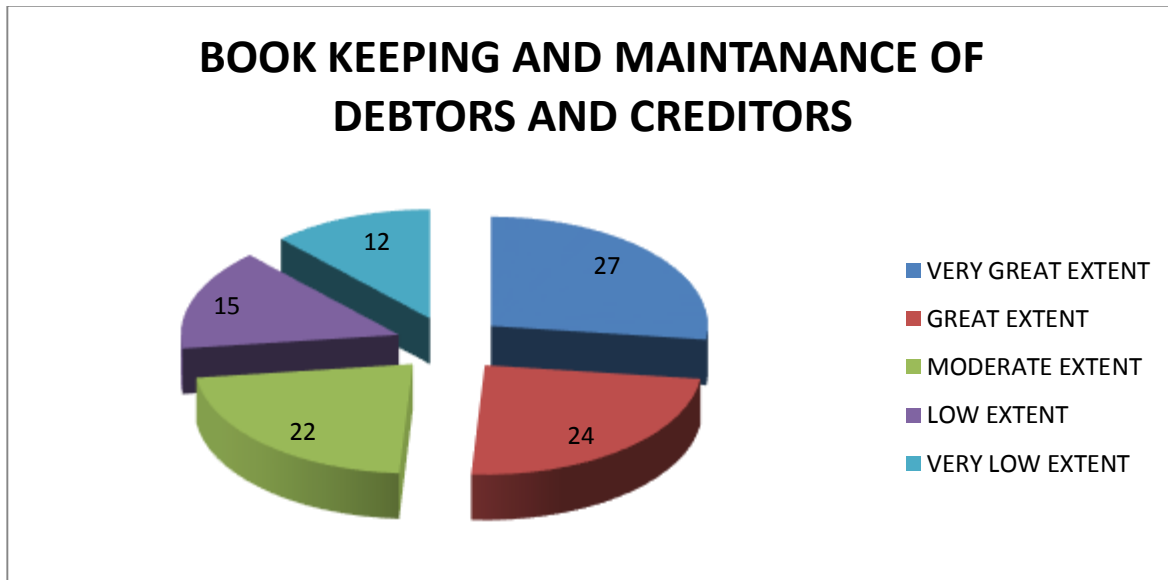


Figure 4: Respondents view on the role of book keeping on the maintenance of debtors and creditors

### Book keeping on the ability to maintain the payroll

The findings also show that the respondents agreed that the ability to maintain the payroll improved their business efficiency and effectiveness, From table 5, 44% of the respondents indicated that book keeping skills influence the maintenance of the payroll to a very great extent, 19% indicated that book keeping skills influences maintenance of the payroll to a great extent, 22 % indicated that book keeping influence the maintenance of the payroll to a moderate extent, 10% indicated that book keeping skills influence the maintenance of the payroll to a low extent while 5% indicated that book keeping skills influence the maintenance of the payroll to a very low extent.

**TABLE 5: Role of book keeping on maintaining the payroll**

Respondents view	Maintenance of the payroll	percentage
Very great extent	18	44
Great extent	8	19
Moderate extent	9	22
Low extent	4	10
Very low extent	2	5
<b>TOTAL</b>	<b>41</b>	<b>100</b>

### Summary of the role of bookkeeping skills on loan repayment

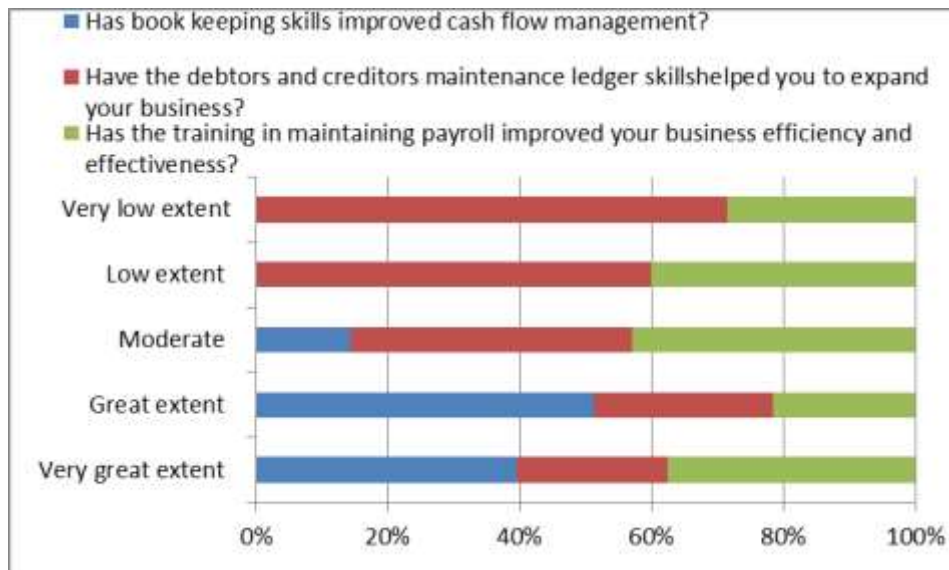


Figure 5: Summary of the role of bookkeeping skills on loan repayment

Asked the judgment how book keeping skills has improvement about cash management, 95.2% acknowledged the good extent (Great extent and Very great extent) while 4.8% only realized the moderate extent. None from respondent judged the bad extent (very low extent and low extent). Also the respondents answered about debtors and creditors maintenance ledger skills; 54.8% acknowledged the high extent (Great extent and Very great extent), 19% moderate and 36.2% of respondent judged the low extent (very low extent and low extent). Asked how the training in maintaining payroll improved business efficiency and effectiveness, 66.7% realized the high extent (Great extent and Very great extent), 19% stated that there have been a moderate extent and 14.3% of respondent judged the low extent (very low extent and low extent).

### The role of credit management skills on loan repayment

#### Credit management skills on interest rate choice

The study established that financial literacy training program had a direct influence on credit management skills of the beneficiaries. From table 6, 41% of the respondents indicated that credit management skills influence the interest rate choice to a very great extent, 34% indicated that credit management skills influences interest rate choice to a great extent, 15 % indicated that credit management skills influence the interest rate choice to a moderate extent, 7 % indicated that credit management skills influence the interest rate choice to a low extent while 3 % indicated that credit management skills influence the interest rate choice to a very low extent.

The pioneering work of Stiglitz and Weiss (1981 cited by Godquin, 2004) marked the beginning of attempts at explanations of credit rationing in credit markets. They asserted that "... interest rates charged by a credit institution are seen as having a dual role of sorting potential borrowers (leading to adverse selection), and affecting the actions of borrowers (leading to the incentive effect)". Weinberg (2006) advocated that interest charged and the amount of debt are the two main factors affecting repayment obligations.

Some banks use the interest rates that an individual is willing to pay as a screening device to identify borrowers with a high probability of repayment. This may be dangerous since high risk-takers are the worst rate payers, in the process affecting default by borrowers on loans.

**Table 6: Respondents view on the role of credit management skills on the interest rate choice**

<b>Respondents view on the role of credit management on interest rate choice</b>	<b>Frequency</b>	<b>percentage</b>
Very great extent	17	41
Great extent	14	34
Moderate extent	6	15
Low extent	3	7
Very low extent	1	3
<b>TOTAL</b>	<b>41</b>	<b>100</b>

### **The role of credit management on loan period**

From Table 7., 37% of the respondents indicated that credit management skills influence the loan period they took to a very great extent, 24% indicated that credit management skills influences loan period they took to a great extent, 22% indicated that credit management skills influence the loan period they took to a moderate extent, 12% indicated that credit management skills influence the loan period they took to a low extent while 5% indicated that credit management skills influence the loan period they took to a very low extent.

The loan period or term of a loan is usually classified as either short-term or long-term. A short-term loan in bank parlance is one that is repayable within a period of one year. A long-term loan on the other hand, is any loan with payment terms extending beyond one year. Although the relationship between loan maturity and borrower risk has been addressed in some theoretical models (Ortiz-Molina & Penas, 2004), there is very little observed research that tests these theoretical models in the context of bank lending to small firms (Berger & Frame, 2005). Bragg (2010:597) asserted that “the short time frame reduces the risk of non-repayment to the bank, which can be reasonably certain that the business’s fortunes will not decline so far within such a short time period that it cannot repay the loan, while the bank will also be protected from long-term variations in the interest rate”.

**TABLE 7: Respondents view on the role credit management on loan period taken**

<b>Respondents view on the role of credit management on loan period taken</b>	<b>Frequency</b>	<b>percentage</b>
Very great extent	15	37
Great extent	10	24
Moderate extent	9	22
Low extent	5	12
Very low extent	2	5
<b>TOTAL</b>	<b>41</b>	<b>100</b>



### Credit management and the amount of loan taken

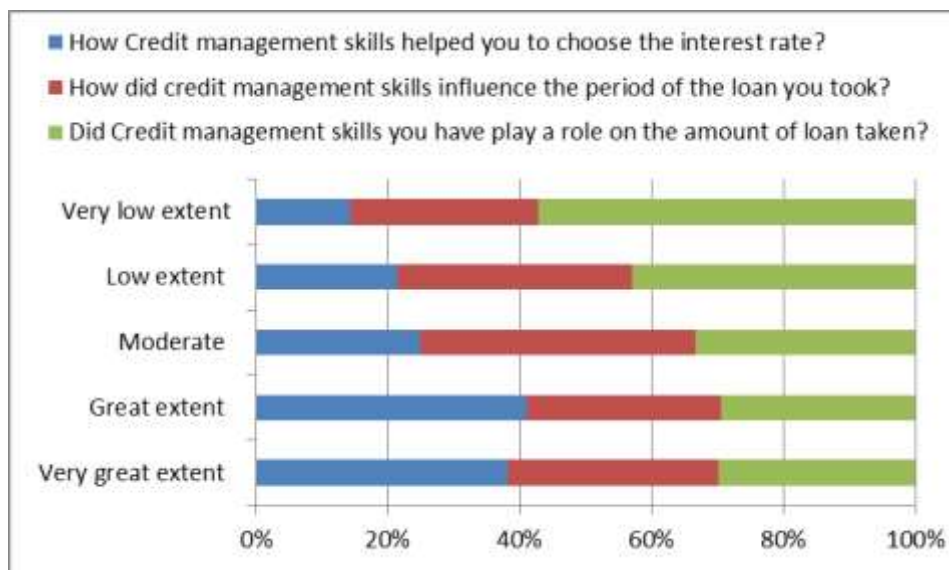
The study sought to find out whether credit management skills influence the amount of the loan taken by the clients of UOB. Table 8, 32% of the respondents indicated that credit management skills influence the loan size taken to a very great extent, 24% indicated that credit management skills influences loan size taken to a great extent, 19% indicated that credit management skills influence the loan size taken to a moderate extent, 15% indicated that credit management skills influence the loan size taken to a low extent while 10% indicated that credit management skills influence the loan size taken to a very low extent.

Godquin (2004) reported that both age and size of loans have an inverse relationship to repayment performance. This concept is related to a study done by Pang (1991 cited by Chong, 2010) who pointed out that the main determinants of repayment obligations are the interest charged and the amount of debt. Furthermore, loans that are too big also lead to repayment problems, dissatisfaction and high dropouts (Hietalahti & Linden, 2006).

**Table 8. Respondents view on the role of credit management and the size of the loan taken**

Respondents view on the role of credit management on size of the loan taken	Frequency	percentage
Very great extent	13	32
Great extent	10	24
Moderate extent	8	19
Low extent	6	15
Very low extent	4	10
<b>TOTAL</b>	<b>41</b>	<b>100</b>

### Summary of the findings on how credit management skills influence loan repayment



*Figure 6: Summary on how credit management skills influence loan repayment*

From figure 6 generated, 90.5% said that credit management skills helped them to choose the interest rate well (Great extent, Very great extent and moderate) and only 9.5% consider the low extent (very low extent and low extent). About the influence of credit management skills to the period of the loan they take, 83.3% believe that credit management skills influenced the period of the loan they take well (Great extent, Very great extent and moderate) against 16.3%. Lastly the figure showed that 76.2% of the respondents answered that Credit management skills played a valuable role on the amount of loan taken.

### **Role of budgeting skills on loan repayment**

### **Role of planning skills on loan repayment**

The study sought to find out the extent to which planning skills influences loan repayment among SMES in Rwanda.

According to Table 9. Below shows that 32% of the respondents Indicated that planning skills influences the loan repayment to a very great extent, 29% of the respondents indicated that planning skills influences loan repayment to a great extent, 20% of the respondents indicated that planning skills influences loan repayment to a moderate extent 12% of the respondents indicated that planning skills influences loan repayment to a low extent. While 7% of the respondents indicated that planning skills influences loan repayment to a very low extent.

According to Lumpkin & Dess (1996), planning skills involves firm's strategic direction which determines competitiveness. According to Wiklund and Shepherd (2003), planning skills clarifies how a firm organizes knowledge resources in order to discover and exploit market opportunities and product innovations which increases performance and competitiveness. Therefore, the inference shows that planning skills is a critical element to facilitate the loan repayment. This is evident that planning helps the firm in aligning its mission to the vision of the enterprise.

**Table 9. Respondents view on the role of planning skills on loan repayment**

<b>Respondents view on the role of planning skills on loan repayment</b>	<b>Frequency</b>	<b>percentage</b>
Very great extent	13	32
Great extent	12	29
Moderate extent	8	20
Low extent	5	12
Very low extent	3	7
<b>TOTAL</b>	<b>41</b>	<b>100</b>

### **The role of running cost on loan repayment**

The study sought to find out the extent to which running cost influences loan repayment among SMES in Rwanda. According to Figure 7. Below shows that 34% of the respondents

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10% of the respondents indicated that running cost influences loan repayment to a very low extent.

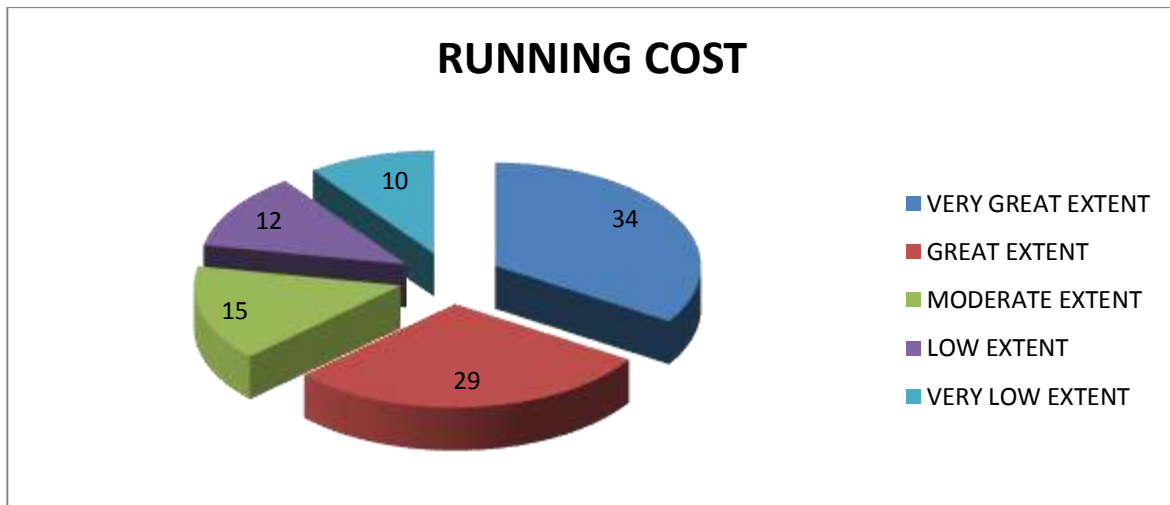


Figure 7: Respondents view on the role of running cost on loan repayment

### The role of internal audit on loan repayment

The study sought to find out the extent to which internal audit influences loan repayment among SMES in Rwanda. According to Figure 8. Below shows that 32% of the respondents indicated that internal audit influences the loan repayment to a very great extent, 24% of the respondents indicated that internal audit influences loan repayment to a great extent, 22% of the respondents indicated that internal audit influences loan repayment to a moderate extent 17% of the respondents indicated that internal audit influences loan repayment to a low extent. While 5% of the respondents indicated that internal audit influences loan repayment to a very low extent.

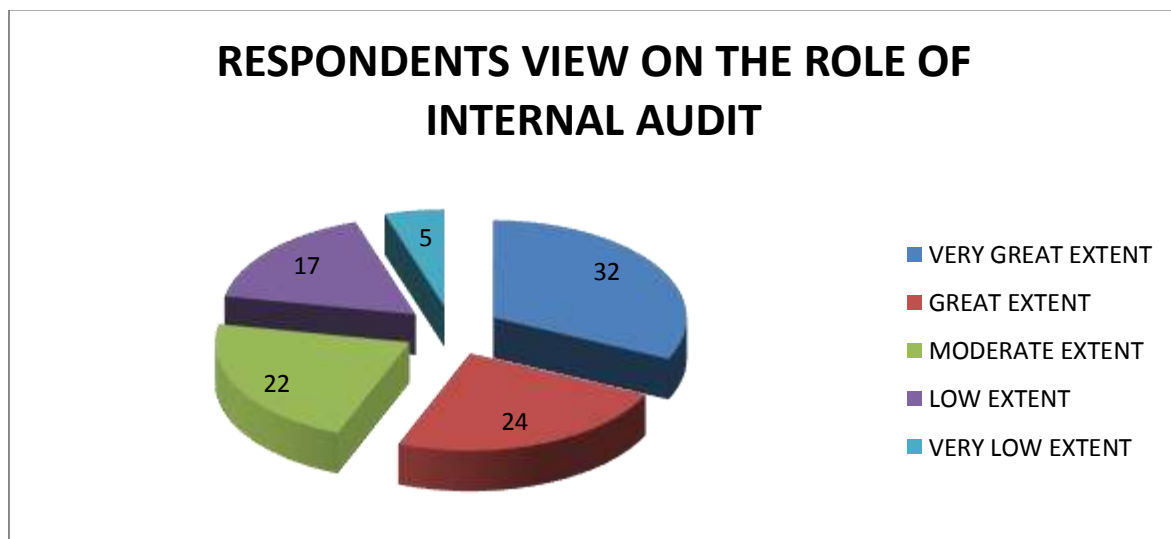


Figure 8: Respondents view on the role of internal audit on loan repayment

**Summary on the relationship between budgeting skills and loan repayment**

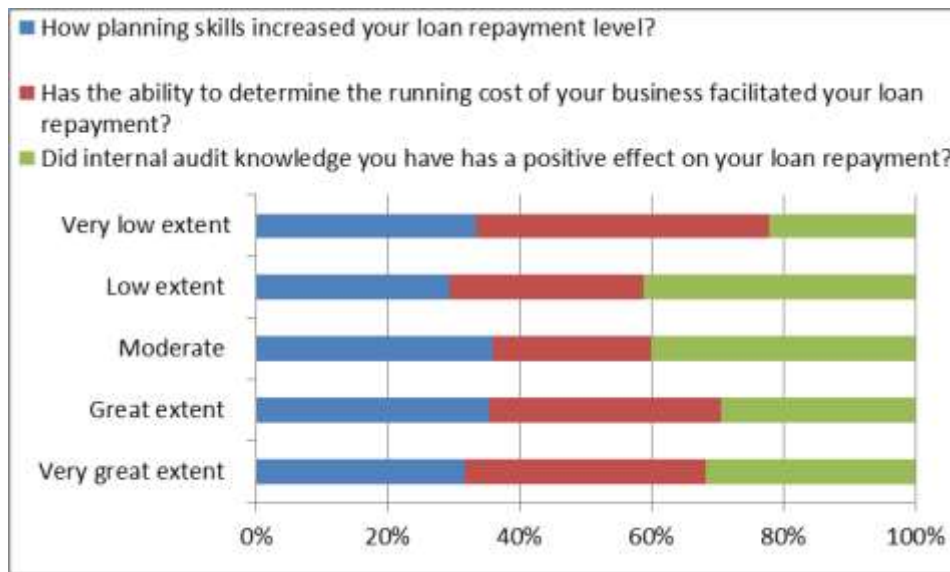


Figure 9: Summary of the role of budgeting skills on loan repayment

According to the above figure 9, 81% of respondents shows how planning skills increased their loan repayment level (Great extent, Very great extent and moderate). From 78.6% of all targeted candidates said that the ability to determine the running cost of their business has facilitated their loan repayment and 78.6% agree that internal audit knowledge they have has a positive effect on their loan repayment.

**Correlation test showing the relationship between financial literacy and loan repayment**

**Table 10: Relationship between bookkeeping skills and loan repayment**

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Pearson's R	.819	.055	9.025	.000 <sup>c</sup>
Ordinal by Spearman Correlation	.832	.060	9.486	.000 <sup>c</sup>
N of Valid Cases	41			

(Source, field data, 2015)

From the correlation test, Pearson's R is 0.82 while spearman's correlation is 0.83. this result is closed to one which implies that bookkeeping skills has a perfect positive correlation with loan repayment.

**Table 11: relationship between credit management skills and loan repayment**

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Pearson's R	.664	.046	5.616	.000 <sup>c</sup>
Ordinal by Spearman Correlation	.750	.038	7.162	.000 <sup>c</sup>
N of Valid Cases	41			

(Source, field data, 2015)

The generated result showed that Pearson's R is 0.66 and spearman correlation is 0.75 which proved that credit management skills have a positive correlation on loan repayment.

**Table 12: Relationship between budgeting skills and loan repayment**

	Value	Asymp. Std. Error <sup>a</sup>	Approx. T <sup>b</sup>	Approx. Sig.
Interval by Pearson's R	.826	.040	9.264	.000 <sup>c</sup>
Ordinal by Spearman Correlation	.840	.041	9.810	.000 <sup>c</sup>
N of Valid Cases	41			

(Source, field data, 2015)

The above result showed that Pearson's R is 0.82 and spearman correlation is 0.84 which stated that budgeting skills and loan repayment has a perfect positive correlation.

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### Introduction

This chapter summarizes the findings and proposes various strategies for further research on the role of financial literacy on loan repayment among small and medium enterprises in Rwanda. The findings indicate that financial literacy are very important. The summary will present closing statements on the role of financial literacy on loan repayment.

### Summary

This project has presented analysis of the role of financial literacy on loan repayment among small and medium enterprises. This study was selected because it provides new research on the role of financial literacy on loan repayment by looking on Urwego Opportunity bank (UOB), which does not exist presently in Rwanda context. A background into the theories of efficiency, reasoned action and positive impact of financial literacy informed the development of a

conceptual framework. This framework identified three independent variables affecting loan repayment as book keeping skills, credit management skills, and budgeting skills.

The theoretical and conceptual frameworks informed the descriptive method on 45 sample clients of UOB, mainly four branches in Nyarugenge district, Kigali city. The data collected was analysed using descriptive statistic. A summary of descriptive analysis showed the role of budgeting skills, credit management and budgeting skills on the internal factors affecting loan repayment namely, cash flow management, maintain debtors and creditors, interest rate choice, loan period, loan size, planning, running cost and internal audit.

The findings indicated that financial literacy is used by urwego opportunity bank (UOB). This financial literacy has been critical to the success of loan repayment as it allows the clients to use book keeping skills, credit management skills, and budgeting skills to pay the loan timely.

It had led to improved performance on cash flow management, the choice of interest rate, loan period, loan size, planning, running cost and internal audit.

Based on this study, it can be concluded that financial literacy contribute to the improved loan repayment of clients of Urwego opportunity bank (UOB). The main recommendation of the study is that Urwego Opportunity Bank should extent its literacy program to their whole clients across the country. This will enhance the performance of the loan repayment.

## **Conclusion**

From the findings of this study, it can be concluded that the performance of SMEs is indeed affected by skills related to book keeping, credit management, and budgeting.

1. On book keeping skills, the findings indicated that skills regarding to the maintenance of debtors and creditors ledgers increased after financial literacy training and this had a positive effect in business in terms of expansion prospects.
2. Regarding the budgeting skills, the findings pointed out that financial literacy regarding the maintenance of a budget committee reduced the SMEs running costs and ultimately enabled advance planning on loan repayment.
3. In addition, it was established that financial literacy training, enhanced the ability to do a self-internal audit that enabled beneficiaries to identify resource leakages and ensure proper channeling of resources towards loan repayment.

This revelation appears to compliment Miller's (2009) argument that financial literacy helps in empowering and educating investors so that they are knowledgeable about finance in a way that is relevant to their business and enables them to use this knowledge to evaluate products and make informed decisions. It is widely expected that greater financial knowledge would help overcome recent difficulties in advanced credit markets.

4. Financial literacy prepares investors for tough financial times, through strategies that mitigate risk such as accumulating savings, diversifying assets, and purchasing insurance.
5. Financial literacy facilitates the decision making processes such as payment of bills on time, proper debt management which improves the credit worthiness of potential



borrowers to support livelihoods, economic growth, sound financial systems, and poverty reduction.

6. It also provides greater control of one's financial future, more effective use of financial products and services, and reduced vulnerability to overzealous retailers or fraudulent schemes.
7. As regards to credit management, it is evident that financial literacy was able to offer differentiated products to their customers. On the differentiated products and services, the financial literacy training program was able to provide SME loans, budgeting skills, book keeping skills, financial statements preparation and self-internal auditing.
8. Further findings indicated that the growth and expansion attracted qualified professionals and eliminated inefficient management through job descriptions and specification reviews, trainings, seminars and workshops.

This is in line with Greenspan (2002) who argues that financial literacy helps to inculcate individuals with the financial knowledge necessary to create household budgets, initiate saving plans, and make strategic investment decisions. Proper application of that knowledge helps investors to meet their financial obligations through wise planning, and resource allocation so as to derive maximum utility.

### **Recommendations**

The study recommends that SMEs should consider enrolling in financial literacy program or any other related programs to enhance their capability.

1. The study recommends the formation of mergers for those SMEs facing constraints in the market in order to remain competitive in the market.
2. SMEs need physical access to markets and help with registration, assistance in finding staff and managing cash flow.
3. Furthermore, access to finance is not necessarily a route to success for micro enterprises. Crucially, they need mentorship and business skills transfer to make the transition to becoming established in the formal sector.
4. Without the capacity to take on the next level of business practice, micro business owners will continue to be much more comfortable in the informal sector. Small businesses need different interventions.

Access to finance and a healthy cash flow are vital if they are to thrive. Yet they are often required to manage their cash flows on a knife's edge in an economy where the tendency to pay late, both by government and big business, has become the norm.

5. The providers of various financial literacy programs should consider implementing a program which fits the culture and traditions of the context targeted and avoid one size fits all because different SMEs have different experiences.
6. Financial literacy programs to achieve better results should be provided by neutral providers who may not have any other interest to derive from the program apart from benefiting the target beneficiaries.

7. The providers of various financial literacy programs should consider implementing a program which fits the culture and traditions of the context targeted and avoid one size fits all because different SMEs have different experiences.
8. Financial literacy programs to achieve better results should be provided by neutral providers who may not have any other interest to derive from the program apart from benefiting the target beneficiaries.
9. The provision of technology based financial services must be preceded with the necessary infrastructures to make its implementation realistic like electricity, network connectivity, general improvement of local population literacy levels and identification of business opportunities and ways of exploitation for the entire population to be economically active and then can discern the relevance of finance literacy training and its influence in usage of technology based financial services and products.
10. More should be done to improve on training and mentoring through designing of an Enterprise Development Training program targeting the beneficiaries.

There should be more focus on the secondary education where technical and vocational training should be done to develop artisans, entrepreneurs and managers for the informal sector in both rural and urban centers.

11. Linkages between the SMEs should be developed especially within the associations to enable better operation, coordination and collective benefits. BDC providers should link up, develop products and mechanisms to ensure that their services area accessed and taken up by entrepreneurs who are members of the association.
12. Support organizations should identify market segments and market opportunities and collaborate with other associations so that entrepreneurs can access these more lucrative markets.
13. Networking events for entrepreneurs should be established by the associations to enable them to share experiences and marketing information.
14. There is a need for structures and safe and secure market areas through which entrepreneurs of associations can be able to market their products and services, e.g. incubators, display venues, market stall and trade fairs. There is need for the government to work towards streamlining coordination of institutions implementing SMEs activities.

### **Suggestions for further Research**

The same study should be carried out in other firms in different industries to find out if the same results would be obtained. A further study should be carried to find out the challenges facing the formation of SMEs in Rwanda. Further studies should also be done to establish other factors of financial literacy on loan repayment since the study only covered 82% of the factors.

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