CREDIT MANAGEMENT AND FINANCIAL PERFORMANCE OF SOLAR ENERGY COMPANIES IN SOUTH-WESTERN UGANDA

BY

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DECLARATION

I, Baguma Keneth, hereby declare that, this research report entitled ***"Credit management and financial performance of solar energy companies in South Western Uganda"*** is my original work through my and has never been submitted by any student of any University for any academic award.

Signed ..... Date: 05/12/2026

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May the God bless you all!

Signed: .....

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ABSTRACT

Credit management is one of the most important activities in any company and cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature. Sound credit management is a prerequisite for a financial institution's stability and continuing profitability, while deteriorating credit quality is the most frequent cause of poor financial performance and condition. As with any financial institution, the biggest risk in bank is extending credit and clients fail to pay back. The study sought to examine the influence of credit management on the financial performance of solar companies in South Western Uganda.

The study adopted a cross-sectional survey research design. The target population of study consisted of 56 respondents who have been administering credit sales and management staff. Entire population was used as the sample giving a sample size of size of 56 employees. Random sampling technique was used in sampling where the entire population was included in the study. Primary data was collected using questionnaires which were administered to the respondents by the researcher.

The Statistical Package for Social Scientists (SPSS) was used for analysis of data in this study which was the SPSS version 20.0. In attempting to analyze the data the researcher used both descriptive statistics. Qualitative data was prepared by use of code sheets which capture relative data on the study variables. The study found that client appraisal, credit risk control and credit policy had impact on financial performance of solar company.

The study established that there was strong relationship between financial performance of solar companies and client appraisal, credit risk control and credit policy. The study established that client appraisal, credit risk control and credit policy significantly influence financial performance of solar companies. Credit policy was found to have a higher effect on financial performance and that a stringent policy is more effective in debt recovery than a lenient policy. The study recommends that solar companies should enhance their credit policy by adapting a more stringent policy to a lenient policy for effective credit management.

CHAPTER 1

INTRODUCTION

1.0 Introduction

This study examines the influence of credit management on the financial performance of solar energy companies by selecting 8 solar companies in south western Uganda. This study was motivated by the fact that there is increasing deterioration in the credit portfolio with high default rates since most of the sales are credit sales to make solar systems affordable. Most of the financial reports of solar companies are showing high levels of delinquency.

This chapter presents the background to the study, the statement of the problem, the purpose of the study, the study objectives, research questions and hypotheses, scope of the study, operational definitions of terms and concepts and significance of the study.

1.1 Background to the Study

The background to this study is divided into four perspectives; the historical, theoretical, conceptual and conceptual perspectives of the study.

1.1.1 Historical Perspective

The concept of credit can be traced back in history and it was not appreciated until and after the Second World War when it was largely appreciated in Europe and later to Africa (Kairu, 2009). Credit has been described as the oil of commerce, and it has been an accepted feature, since the early part of the twentieth century, that businesses allow customers time to pay. In normal trading, not to give credit would restrict sales, reduce volumes and increase unit costs. It is not true of every

business, at least on the face of it. Many businesses selling direct to consumers do so on a cash basis (usually) – supermarkets, fast food shops, cafés, for example, B2B sales, however, would consider cash trading impracticable, and it would be a barrier to sales growth in most cases Glen (2010).

Solar Companies are private institutions that are established for providing solar energy systems and services under the laws and guidelines Uganda. Solar energy resource in Uganda is high throughout the year. The mean solar radiation is 5.1 kWh/m 2 per day, on a horizontal surface. There are a number of solar technologies which include solar water heating and solar photovoltaic systems for supply of basic electricity in rural institutions and households as well as areas not connected to the grid. Solar technology can also be used for power generation, however, the prohibitive costs make it less favorable than other sources of power generation.

1.1.2 Theoretical perspective

The researcher used Portfolio Theory. Since the 1980's, companies have successfully applied modern portfolio theory to market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit management remains the biggest challenge facing most companies, the practice of applying modern portfolio theory to credit management has lagged (Margrabe, 2007).

Companies recognize how credit concentrations can adversely impact financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. This industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk

efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted. (Kairu 2009). The combination of these developments has vastly accelerated progress in managing credit in a portfolio context.

1.1.3 Conceptual perspective

Credit management is one of the most important activities in any company and cannot be overlooked by any economic enterprise engaged in credit irrespective of its business nature. It is the process to ensure that customers will pay for the products delivered or the services rendered. Myers and Brealey (2003) describe credit management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Nelson (2002) views credit management as simply the means by which an entity manages its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk.

Financial performance is company's ability to generate new resources, from day- to- day operations, over a given period of time; performance is gauged by net income and cash from operations. A portfolio is a collection of investments held by an institution or a private individual (Apps, 1996 cited in Danson, 2012). Turyahebya (2013), also defines financial performance as the ability to operate efficiently, profitably, survive, grow and react to the environmental opportunities and threats.

1.1.4 Contextual perspective

Timely identification of potential credit default is important as high default rates lead to decreased cash flows, lower liquidity levels and financial distress. In contrast, lower credit exposure means an optimal debtors' level with reduced chances of bad debts and therefore financial health. According to Scheufler (2002), in today's business environment risk management and improvement of cash flows are very challenging. With the rise in bankruptcy rates, the probability of incurring losses has risen. Economic pressures and business practices are forcing organizations to slow payments while on the other hand resources for credit management are reduced despite the higher expectations. Therefore, it is a necessity for credit professionals to search for opportunities to implement proven best practices.

In the solar energy sector credit management has been identified to be poor. There has been ineffectiveness in all credit processes right from client appraisal to recovery in case of default. In addition, it was noted that although some solar companies had embarked on several initiatives like integrating all credit information of clients into ERP systems, setting up of credit department and training of their credit staff, these have not yielded much. Although several factors may be responsible for poor financial performance, this study will basically ascertain how credit management related with financial performance.

1.2 Statement of the problem

Weak credit management is a primary cause of many business failures (McMenamin, 1999). According to Gren, (2010) bad quality assets (loans) not only erode the institution's ability to recycle its financial resources but also threaten their survival and deprive the economy of a continuous flow of capital.

Good credit management of Solar companies is key as it the basis for their sustainability (Myers and Brealey, 2003). Attaining a good financial performance determines a company's health and stability. This gives an intuitive understanding that the company conducts its activities very well.

However, Solar companies have put in place good credit management strategies for example developing credit policies, establishing credit departments but financial performance has not improved (Gren,2010). This is evidenced by high spread of delinquency and default from a handful of loans to a significant portion of the portfolio. Some of the solar companies have over 10% of their portfolio at risk (PAR) over 30 days. low liquidity, low solvency, low profitability and poor financial efficiency (SolarNow financial report June 2016). If this situation persists, it will lead to the eventual collapse of solar companies. It is upon this background that the researcher intends to find out the effect of credit management towards financial performance of solar energy companies in Uganda.

1.3 General objective of the study

To examine the influence of credit management on the financial performance of solar energy companies in Uganda.

1.4 Specific Objectives

1. To analyse the effect of credit appraisals on financial performance of solar companies.
2. To assess the effect of credit policy on financial performance of solar companies.
3. To examine the effect of credit risk controls on financial performance of solar companies.

1.5 Research Questions

In pursuit of the specific objectives, this study seeks to answer the following questions:

1. What is the effect of credit appraisals on financial performance in solar companies?
2. What is the effect of credit risk control on financial performance in solar companies?
3. What is the effect of credit policy on financial performance in solar companies?

1.6 Scope of the study

Geographically the study will be concentrated on solar companies found in South Western Uganda. This is because; it is the area with high demand of solar systems with many solar companies operating there. The result obtained taking case study of this specific region will be assumed to reflect the situation of all solar companies in the country under normal circumstance.

The study will base on credit policies, procedures, and credit operations of the solar companies. It will assess whether the credit portfolio growth and performance is to the required level of the companies or not. In addition, the study will be concerned with identifying the major reasons for best practices of credit management, loan growth, and causes of the default if any in the region. Since the credit rules and procedures of the solar companies are quite different in all companies

The study will base on the time frame of 2011 to 2016 as most of these companies started operations during this period.

1.7 Significance of the Study

The investigation was to establish the underlying factor responsible for solar companies' performance in Uganda is paramount, given the recent growth in the solar energy sector. The study provides insight for solar companies' owners and policy makers, on factors that determine financial performance and efficient utilization of resources, for sustainable competitiveness. Thus this study contributes to more understanding of the factors that have an impact on solar companies' performance in Uganda. Solar companies in Uganda have to review the way they have been conducting business through credit facility. Understanding factors that have great impact on solar companies' performance is essential for survival and also useful in sustaining profitability in the dynamic and competitive business.

In general, the study contributes to existing knowledge since solar energy sector is a new industry in Uganda on factors responsible for solar companies' performance and serves as a basis to provide measures and policy formulation for stakeholders and to embark upon solar companies' specific factors in order to enhance the quality of solar companies' services in Uganda.

1.9 Limitation of the Study

Though studying a new sector would have better results, due to the time and finance constraints the researcher was limited to undertake the study in 8 solar companies located in South Western Uganda. I saved enough money to support me in traveling to different places.

Some of the respondents were reluctant in giving information fearing that the information sought would be used to intimidate them or print a negative image about them or their solar companies. Some respondents even turned down the request to fill questionnaires. The study handled the problem by carrying an introduction letter from the University and assuring them that the information they gave was to be treated confidentially and was to be used purely for academic purposes.

Employees operated on tight schedules; respondents were not able to complete the questionnaire in good time and this overstretched the data collection period. To mitigate this limitation, the study made use of network to persuade targeted respondents to fill up and return the questionnaires.

The researcher also encountered problems in eliciting information from the respondents as some of the information required was subject to areas of attitudes and perceptions, which could not be accurately quantified and/or verified objectively. The researcher encouraged the respondents to participate without holding back the information they were having as the research instruments did not bear their names.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter summarizes the information from the available literature in the same field of study. It reviewed theories of credit management as well as empirical studies on credit management and financial performance in Uganda and other countries.

2.1 Theoretical review

2.1.1 Portfolio Theory

Since the 1980's, companies have successfully applied modern portfolio theory to market risk. Many companies are now using value at risk models to manage their interest rate and market risk exposures. Unfortunately, however, even though credit risk remains the largest risk facing most companies, the practice of applying modern portfolio theory to credit risk has lagged (Margrabe, 2007).

Companies recognize how credit concentrations can adversely impact financial performance. As a result, a number of institutions are actively pursuing quantitative approaches to credit risk measurement. This industry is also making significant progress toward developing tools that measure credit risk in a portfolio context. They are also using credit derivatives to transfer risk efficiently while preserving customer relationships. Portfolio quality ratios and productivity indicators have been adapted. (Kairu 2009). The combination of these developments has vastly accelerated progress in managing credit risk in a portfolio context.

Traditionally, organizations have taken an asset-by-asset approach to credit risk management. While each company's method varies, in general this approach involves periodically evaluating the quality of credit exposures, applying a credit risk rating, and aggregating the results of this analysis to identify a portfolio's expected losses. The foundation of the asset-by-asset approach is a sound credit review and internal credit risk rating system. This system enables management to identify changes in individual credits, or portfolio trends in a timely manner. Based on the changes identified, credit identification, credit review, and credit risk rating system management can make necessary modifications to portfolio strategies or increase the supervision of credits in a timely manner.

While the asset-by-asset approach is a critical component to managing credit risk, it does not provide a complete view of portfolio credit risk, where the term risk refers to the possibility that actual losses exceed expected losses. Therefore, to gain greater insight into credit risk, companies increasingly look to complement the asset-by-asset approach with a quantitative portfolio review using a credit model (Mason and Roger, 1998).

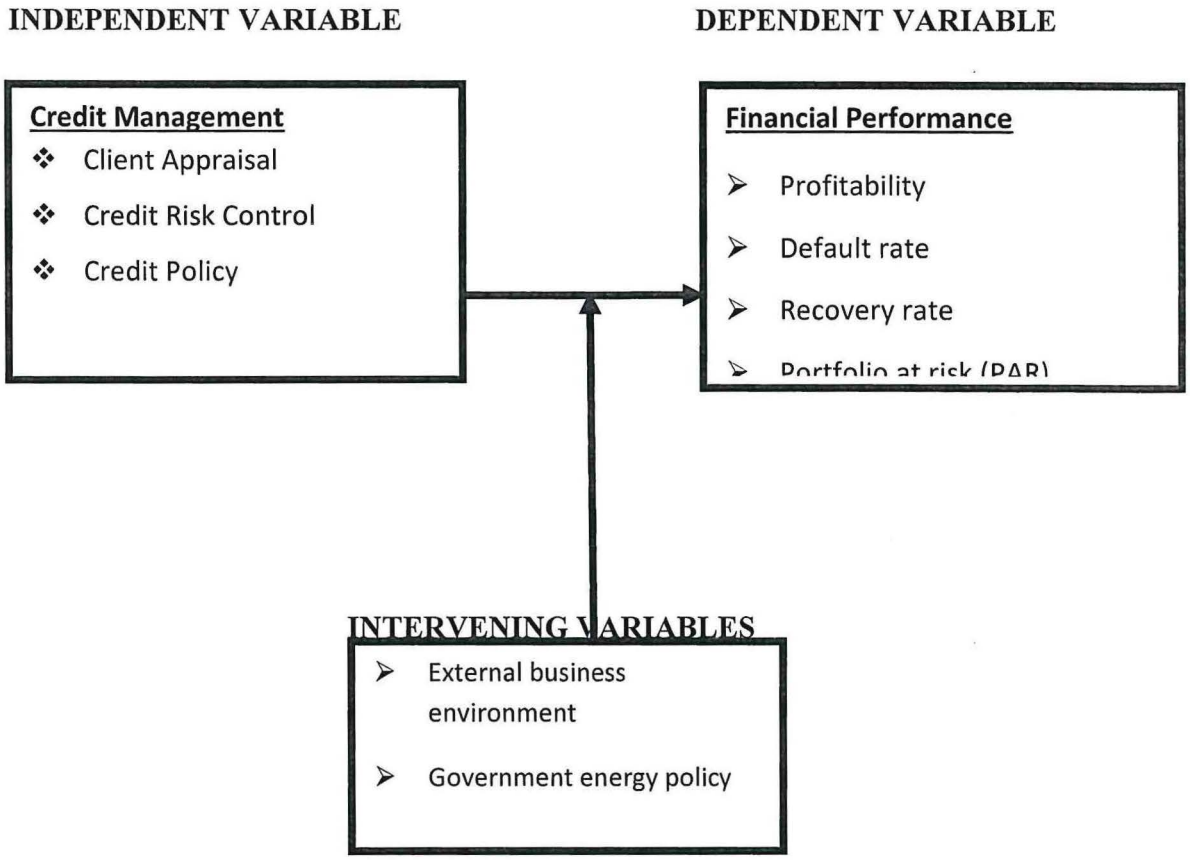
Companies increasingly attempt to address the inability of the asset-by-asset approach to measure unexpected losses sufficiently by pursuing a portfolio approach. One weakness with the asset-by-asset approach is that it has difficulty identifying and measuring concentration. Concentration risk refers to additional portfolio risk resulting from increased exposure to credit extension, or to a group of correlated creditors (Richardson, 2002).

2.1.2 Credit Risk Theory

Although people have been facing credit risk ever since early ages, credit risk has not been widely studied until recent 30 years. Early literature (before 1974) on credit uses traditional actuarial methods of credit risk, whose major difficulty lies in their complete dependence on historical data. Up-to now, there are three quantitative approaches of analyzing credit risk: structural approach, reduced form appraisal and incomplete information approach (crosbie et al 2003). Melton 1974 introduced the credit risk theory otherwise called the structural theory which is said the default event derives from a firm's asset evolution modeled by a diffusion process with constant parameters. Such models are commonly defined "structural model "and based on variables related a specific issuer. An evolution of this category is represented by asset of models where the loss conditional on default is exogenously specific. In these models, the default can happen throughout all the life of a credit facility (Longstaff and Schwartz 1995).

2.2 Conceptual Analysis

Figure 1.1: Relationship between Credit Management and Financial Performance



Source: Glen, B. (2010). as modified by the researcher

2.2.1 Credit Management

Myers and Brealey (2003) describe credit management as methods and strategies adopted by a firm to ensure that they maintain an optimal level of credit and its effective management. It is an aspect of financial management involving credit analysis, credit rating, credit classification and credit reporting. Nelson (2002) views credit management as simply the means by which an entity manages

its credit sales. It is a prerequisite for any entity dealing with credit transactions since it is impossible to have a zero credit or default risk.

Good credit management provide the institution with a reasonable and adequate return on loans and capital employed primarily through improvement in operations efficiency this generates adequate internal resources to finance the institution's growth (Pandey, 2008).

2.2.1.1 The 5 C's Model of Client Appraisal

Solar companies that offer credit facility use the 5Cs model of credit to evaluate a credit customer as a potential client (Abedi, 2000). The 5Cs help Solar companies to increase credit performance, as they get to know their customers better. These 5Cs are: character, capacity, collateral, capital and condition.

Character basically is a tool that provides weighting values for various characteristics of a credit applicant and the total weighted score of the applicant is used to estimate his credit worthiness (Myers and Forgy, 2005). This is the personal impression the client makes on the potential lender.

The factors that influence a client can be categorized into personal, cultural, social and economic factors (Ouma, 1996). The psychological factor is based on a man's inner worth rather than on his tangible evidences of accomplishment. Solar companies consider this factor by observing and learning about the individual. In most cases it is not considered on first application of credit by an applicant but from the second time. Under social factors, lifestyle is the way a person lives. This includes patterns of social relations (membership groups), consumption and entertainment. A

lifestyle typically also reflects an individual's attitudes, values or worldview. Reference groups in most cases have indirect influence on a person's credibility. Solar companies try to identify the reference groups of their target as they influence a client's credibility. Personal factors include age, life cycle stage, occupation, income or economic situation, personality and self-concept. Under life cycle stage for example older families with mature children are not likely to default since it's easier to attach collateral on their assets since they are settled unlike the unsettled young couples.

Capacity, this is subjective judgment of a customer's ability to pay. It may be assessed using a customer's ability to pay. It may be assessed using the customer's past records, which may be supplemented by physical or observation. The Solar companies will consider the cash flow from the business and other sources of income, the timing of the repayment, and the successful repayment of the credit facility. Anthony (2006) defines cash flow as the cash a borrower has to pay his debt. Cash flow helps the Solar companies to determine if the borrower has the ability to repay the debt. The analysis of cash flow can be very technical. It may include more than simply comparing income and expenses. Solar companies determine cash flow by examining existing cash flow statements (if available) and reasonable projections for the future ratios.

Condition, this is the impact of the present economic trends on the business conditions which affects the firm's ability to recover its money. It includes the assessment of prevailing economic and other factors which may affect the client ability to pay (Kakuru, 2001)

Collateral is any asset that customers have to pledge against debt (Lawrence & Charles, 1995). Collateral represents assets that the company pledges as alternative repayment source of loan. Most

collateral is in form of hard assets such as real estate and office or manufacturing equipment. Alternatively accounts receivable and inventory can be pledged as collateral. Lenders of short term funds prefer collateral that has duration closely matched to the short term loan. It is also a form of security which the client offers as form of guarantee to acquire loans and surrender in case of failure to pay; if borrowers do not fulfill their obligations the creditor may seize their asset (Girma, 2006).

According to Weston and Eugene (1966), Capital is measured by the general financial position of the borrower as indicated by a financial ratio analysis, with special emphasis on tangible net worth of the borrower's business. Thus, capital is the money a borrower has personally invested in the business and is an indication of how much the borrower has at risk should the business fail. Condition refers to the borrower's sensitivity to external forces such as interest rates, inflation rates, business cycles as well as competitive pressures. The conditions focus on the borrower's vulnerability.

2.2.1.2 Credit Terms

This refers to the conditions under which an institution advances credit to its customers. The credit terms will specify the credit period and interest rates. Credit period refers to the period of time in which the credit is granted. The length of the credit period is influenced by Collateral value, Credit risk, the size of the account and market competition (Ross, Westerfield & Jordan, 2008). Debt in a particular class will have its own interest rate in accordance with the theory of term structure. The interest rates charged is a cost on borrowed funds and may affect the loan performance.

2.2.2 Credit Risk Control

Credit risk is an investor's risk of loss arising from a borrower who does not make payments as promised. Such an event is called a default. Another term for credit risk is default risk. Investor losses include lost principal and interest, decreased cash flow, and increased collection costs. Credit risk can be mitigated using risk based pricing, covenants, credit insurance, tightening and diversification (Ross et al, 2008).

Credit risk is the probability that the return supposed to be earned on an investment or risky asset extended will depart from that, which was expected. Coyle (2000) characterizes credit risk as debts emerging from the unwillingness or failure of loan clients to meet their commitment of what is outstanding in full and on time.Breth (1999) stated that before a deal in signed a loan application is to be completed. This provides risk protections by enabling the lending institutions to follow up when the borrowers fail to honor the agreement.

Key Credit controls include loan product design, credit committees, and delinquency management. (Churchill and Coster, 2001).

2.2.2.1 Loan product design

According to Churchill and Coster, 2001, MFIs can mitigate a significant portion of default risk by designing loan products that meet client needs. Loan product features include the loan size, interest rate and fees, repayment schedule, collateral requirements and any other special terms. Loan products should be designed to address the specific purpose for which the loan is intended.

2.2.2.2 Credit Committees

Establishing a committee of persons to make decisions regarding loans is an essential control in reducing credit (and fraud) risk. If an individual has the power to decide who will receive loans, which loans will be written off or rescheduled, and the conditions of the loans, this power can easily be abused and covered up. While loan officers can serve on the credit committee, at least one other individual with greater authority should also be involved. The credit committee has the responsibility not only for approving loans, but also for monitoring their progress and, should borrowers have repayment problems, getting involved in delinquency management (Churchill and Coster, 2001)

2.2.2.3 Delinquency Management

To minimize such delinquency Solar companies can use the following delinquency management methods Institutional Culture: A critical delinquency management method involves cultivating an institutional culture that embraces zero tolerance of arrears and immediate follow up on all late payments. Solar companies can also remind clients who have had recent delinquency problems that their repayment day is approaching. (Churchill and Coster, 2001)

2.2.3 Credit Policy

A credit policy is an institutional method for analyzing credit requests and its decision criteria for accepting or rejecting applications Girma and Hanley (2006).A credit policy is important in the management of accounts receivables. A firm has time flexibility of shaping credit policy within the confines of its practices. It is therefore a means of reducing high default risk implying that the firm should be discretionary in granting loans (Pandey, 2008).

There are various policies that an organization should put in place to ensure that credit management is done effectively, one of these policies is a collection policy which is needed because all customers do not pay the firms bills in time. Some customers are slow payers while some are non-payers. The collection effort should, therefore aim at accelerating collections from slow payers and reducing bad debt losses (Kariuki, 2010).

Policies save time by ensuring that the same issue is not discussed over and over again each time a decision is to be made. This ensures that decisions are consistent and fair and that people in the same circumstance get treated in the same manner (Khandkar and Khan, 1998). According to McNaughton (1996), credit policy provides a frame work for the entire management practices. Most financial institutions have written credit policies which are the cornerstone of sound credit management, they set objectives, standards and parameters to guide micro finance officers who grant loans and manage loan portfolio. The main importance of policies is to ensure operation's consistency and adherence to uniform sound practices. Policies should always be the same for all and is the general rule designed to guide each decision, simplifying and listening to each decision making process. A good credit policy involves effective initiation analysis, credit monitoring and evaluation.

According to Pike and Neale (1999), a sound credit policy is the blueprint for how the company communicates with and treats its most valuable asset, the customers. Scheufler (2002) proposes that a credit policy creates a common set of goals for the organization and recognizes the credit and collection department as an important contributor to the organization's strategies.

Pandey, (2008) observers that credit policy refers to a combination of three decision variables. These decision variables determine who qualifies for the loan. They include, credit standards, credit terms and collection efforts on which the financial manager has influence.

2.2.3.1 Credit Standards

Credit standards according to Mehta (1972), in advancing loans, credit standard must be emphasized such that the credit supplier gains an acceptable level of confidence to attain the maximum amount of credit at the lowest as possible cost. Credit standards can be tight or loose (Van Horne, et al 2009). Tight credit standards make a firm lose a big number of customers and when credit are loose the firm gets an increased number of clients but at a risk of loss through bad debts. A loose credit policy may not necessarily mean an increase in profitability because the increased number of customers may lead to increased costs in terms of loan administration and

bad debts recovery. In agreement with other scholars Van Horne, (1994), advocated for an optimum credit policy, which would help to cut through weaknesses of both tight and loose 17credit standards so, the firm can make profits. This is a criteria used to decide the type of client to whom loans should be extended. Kakuru (2001) noted that it's important that credit standards be basing on the individual credit application by considering character assessment, capacity condition collateral and security capital.

2.2.3.2 Credit Terms

A Credit term is a contractual stipulation under which a firm grants credit to customers (Wamasembe, 2001); furthermore, these terms give the credit period and the credit limit. The firm should make terms more attractive to act as an incentive to clients without incurring unnecessary

high levels of bad debts and increasing organizations risk. Credit terms normally stipulate the credit period, interest rate, method of calculating interest and frequency of loan installments. Kakuru (1998) explains the significance of discounts in credit terms. Discounts are offered to induce clients to pay up within the stipulated period or before the end of the credit period. This discount is normally expressed as a percentage of the loan. Discounts are meant to accelerate timely collection to cut back on the amount of doubtful debts and associated costs.

Ringtho (1998) observes that credit terms are normally looked at as the credit period terms of discount and the amount of credit and choice of instrument used to evidence credit. Credit terms may include; Length of time to approve loans, this is the time taken from applicants to the loan disbursement or receipt. It is evaluated by the position of the client as indicated by the ratio analysis, trends in cash flow and looking at capital position. Maturity of a loan, this is the time period it takes loan to mature with the interest there on. Cost of loan. This is interest charged on loans, different micro finance institutions charge differently basing on what their competitors are charging. Robinson M.S (2001) pointed out that the maximum loan amount per cycle are determined basing on the purpose of the loan and the ability of the client to repay (including guarantee).

2.2.3.3 Collection Efforts

McNaughton (1996) defines a collection effort as the procedure an institution follows to collect past due account. Collection policy refers to the procedures micro finance institutions use to collect due accounts. The collection process can be rather expensive in terms of both product expenditure and lost good will (Brighan, 1997). Collection efforts may include attaching mandatory savings forcing guarantors to pay, attaching collateral assets, courts litigation (Myers, 1998). Methods used by Micro

finance institutions could include letters, demand letters, telephone calls, visits by the firm's officials for face to face reminders to pay and legal enforcement.

Collection procedure is required because some clients do not pay the loan in time some are slower while others never pay. Thus collection efforts aim at accelerating collections from slower payers to avoid bad debts. Prompt payments are aimed at increasing turn over while keeping low and bad debts within limits (Pandey, 1995). However, caution should be taken against stringent steps especially on permanent clients because harsh measures may cause them to shift to competitors (Van Horn 1995). Ssewagudde, (2000)

states that collection efforts are directed at accelerating recovery from slow payers and decreases bad debts losses. This therefore calls for vigorous collection efforts. The yardstick to measurement of the effectiveness of the collection policy is its slackness in arousing slow paying customers.

2.2.4 Effects of Credit Policy on Financial Performance

The forwarding of credit to prospective customers suggests that the funds of a firm are locked up somewhere else whose installment will be some place within a reasonable time frame. Considering the way, the future is characterized by an extraordinary level of uncertainty, the accessibility of credit is disproportionately related to profits on the grounds that it is hard to figure out if these obligations would be recuperated from customers, and so most often the organizations utilize the funds for sustainability rather than embarking on risky investments and expansion of scale of operations Sharpele, (2000).

On the other hand, if the firm all the more so a bank chooses to restrict its credit lines, it causes a decrease on its level of profits (Don, 2009). This is on account of the fact that such monetary

organizations generate returns singularly on the premiums that accrue based on the repayment of loans. These reduced gains may likewise be because of different components including lower levels of investments and misapplication of variable inputs (Brigham, 1997). In this manner, it is necessary to have a proficient credit administration strategy that decreases the expenses included in credit arrangements while at the same time expanding the profits from such endeavors.

In order to do achieve that, there has to be a way of determining how credit management and the various processes involved affect the performance in terms of not only profitability but loan portfolio quality, recovery rates and how these have a larger impact on the overall value of the company in terms of the maximization of shareholders" wealth or value which is the real determinant of the value and performance of a company.

2.2.5 Economic Cycles

The term economic cycle (or business cycle) refers to economy-wide fluctuations in production or economic activity over several months or years. These fluctuations, according to Pandey (2008) occur around a long-term growth trend, and typically involve shifts over time between periods of relatively rapid economic growth (an expansion or boom) and periods of relative stagnation or decline (a contraction or recession). The economic cycles also play an important role on Solar companies' loan portfolio.

2.2.6 The Essence of Sound Credit Management

If revenue is the energy that fuels a company, credit management is the engine that keeps it running. The credit management apparatus acts in the capacity as a dominant force that drives income and motivation to all aspects of the organization. As the credit management system metamorphoses into a more potent and effective mechanism, it has a direct impact on the business in terms of profits and productivity Atradius (2013).

According to Paul Brice, partner at KPMG, he stated that, "where you have important trading interconnections, it's a good practice to regularly monitor financial performance by taking a comprehensive look at a broad range of financials and other information to establish the direction in which the company is moving towards and to identify its financial needs".

2.2.7 Financial Performance

Financial performance is company's ability to generate new resources, from day- to- day operations, over a given period of time; performance is gauged by net income and cash from operations. A portfolio is a collection of investments held by an institution or a private individual (Appa, 1996). Financial performance can be measured using the following repayment rate, portfolio quality ratios, arrears ratio rate, portfolio rate and delinquent borrowers. Repayment rate measures the amount of payment received with respect to the amount due. Portfolio quality ratios; involves the arrears rate portfolio risk and the ratio delinquent borrowers. The arrears ratio rate shows how much of the loans have become due and has not been received. Portfolio rate refers to the outstanding balance of all loans that have an amount due. Delinquent borrowers determine the number of borrowers who are delinquent relative to the volume of delinquent loans.

2.2.7.1 Measures of Financial Performance

There are certain performance measures that are used to evaluate the performance of credit offering institutions as a way of determining whether the institution is experiencing more growth through the making of gains or is retrogressing through the generation of losses and these include:

2.2.7.1.1 Profitability

Fundamentally, profitability is determined by the weighing of incomes against expenditure. Income is the returns generated from the various operations of the enterprise for instance, the interest revenue generated on advance commitments. Expense are the costs incurred in providing those operations carried out by the firm. Examples of some of the costs include the cost of deferred consumption on the loaned amount otherwise known as the opportunity costs since they are locked up in the hands of debtors, the costs of recurring expenditure of credit activities, the expenses incurred in collecting non-performing debts and the costs involved in recovering bad loans (Kader & Leong, 2009).

Profitability can be defined in terms of accounting or economic profits. Accounting benefits is the surplus income left after derivation of all costs. For a financial organization to run, it must be making gains. Then again, a single non-benefit monetary year may not cause any significant loss to the institution, however when the firm continues posting misfortunes in resulting years, this may jeopardize the suitability of that business (Don, 2009).

Economic profit is computed by subtracting the opportunity cost from the net revenue (Graham, 1996). The opportunity cost includes the funds, the effort and the managerial resources directed towards the control and administration of credit processes. The essence of economic profits is to

provide the business with a prospect in the long-term to superintend its continuous operation of activities. Some of the measures of profitability include return on capital employed (ROCE), Gross margins and net profit margins.

2.2.7.1.2 Default rates

Credit default refers to the lack of capacity of a borrower to meet his or her advance commitment at the agreed time as per the loan agreement. As noted by Baku and Smith (1998) the expenses incurred as a result of the failure to meet commitment imposed on the loan customer would be felt by both counter-parties. The loan firm ends up acquiring costs produced as a result of non-payment situations, including wiped-off returns on risky assets, opportunity expense of primary, legal charges and related expenses. For the borrower, the choice to default is symmetry between the relinquishment in lost reputation from default as against the opportunity cost of foregoing investments because of the repayment of the current credit facility. The borrower consequently needs to weigh the alternatives precisely and settle on the right choice that will support the circumstances in which he discovers himself. Defaults therefore ought to be managed in a manner that makes it difficult for such situations to arise through the establishment of prudent credit management processes that seek to safeguard loan assets against inherent default risks (Wang and Dunn, 2012).

2.2.7.1.3 Interest-Income

It is generally a term used by companies on their income statements for reporting the interest accrued on cash temporarily held in savings accounts, certificates of deposits or other investments. Because the interest wasn't part of the original investment, they record it separately, as interest income. It is also the difference between the revenue that is generated from a bank's assets and the expenses

associated with paying out its liabilities. A typical bank's assets are made up of all forms of personal and commercial loans, mortgages and securities. The liabilities are, of course, the customer deposits. The residual revenue that is generated from the spread between interest paid out on deposits and interest earned on assets is the net interest income (Burt Edwards, 2004).

2.2.7.1.4 Recovery-Rate

One critical element of a strong risk management system is a company's ability to evaluate the potential losses on its investments. One factor that determines the extent of losses is the recovery rate on advances and securities that are in default. The recovery rate measures the extent to which the creditor recovers the principal and accumulated interest due on a defaulted obligation. While financial companies, their regulators, and researchers commonly assume that the recovery rate is constant, in practice, actual recovery rates vary significantly. The recovery rates are inversely related to the default rates and this is due to the fact that both indicators are usually strongly influenced by the economic environment of a country (Dullman and Monika, (2004).

2.3 Empirical Studies

There are numerous researches on the effect of credit management on financial performance, and how could the effective credit risk management assist in reducing the possibility of failure and restricting the uncertainty of achieving the required financial performance. Most of these researches support the notion that there is a positive relationship between effective credit management financial performance, and some of these studies support the notion that there is a negative relationship between them, as follows.

Kimotho D.N., & Gekara M (2016) revealed that a unit increase in credit appraisal analysis would lead to increase in financial performance of commercial banks in Kenya; this is an indication that there was positive association between credit appraisal and financial performance of commercial banks. The study concluded that commercial banks use credit risk appraisal analysis in Credit Management to a great extent. Further it established that client appraisal is a viable strategy for credit, Aspects of collateral are considered while appraising clients, failure to assess customer's capacity to repay results in loan defaults, client appraisal considers the character of the customers seeking credit facilities and that commercial banks have competent personnel for carrying out client appraisal.

Njanike (2009) found that the absence of effective credit risk management led to occurrence of the banking crisis, and inadequate risk management systems caused the financial crisis. Aruwa and Musa (2014) investigated the effects of the credit risk, and other risk components on the banks' financial performance. They found a strong relationship between risk components and the banks' financial performance.

Nawaz and Munir (2012) found that credit risk management effected on the banks' profitability, and they recommended that management should be cautious in setting up a credit policy that might not negatively affect profitability. Singh (2013) revealed that Effective risk management was critical to any bank for achieving financial soundness.

Owusu (2008) on credit practices in rural banks in Ghana found out that the appraisal of credit applications did not adequately assess the inherent credit risk to guide the taking of appropriate credit

decision he also found out that the drafted credit policy documents of the two banks lacked basic credit management essentials like credit delivery process, credit portfolio mix, basis of pricing, management of problem loans among others to adequately make them robust. In his recommendations he stated that credit amount should be carefully assessed for identified projects in order to ensure adequate funding. This situation provides the required financial resources to nurture projects to fruition, thus forestalling diversion of funds to other purposes, which may not be economically viable.

According to Haron O. et al (2012) Credit terms formulated by the credit granting institutions do affect loan performance; the involvement of credit officers and customers in formulating credit terms affects loan performance. Credit risk controls adopted by credit institutions have an effect on loan performance, credit insurance, signing of covenants with customers, credit rating of customers, reports on financial conditions, refrain from further borrowing had an effect on loan performance. Collection policies adopted by the institution had an effect on loan performance, stringent policy had a great impact on loan performance, and the lenient policy had an effect but was not as great as that of stringent policy

According to Ssewagudde (2000) credit policy provides parameters, defines procedures and directives that have been carefully formulated, administered from top and well understood at all institution's levels. Many micro finances undergo a set of three procedures of evaluating credit applicants to establish whether or not loans should be granted, these are credit information, credit investigation and analysis in a bid to maintain proper credit standards, avoid excess risk and evaluate business opportunity (ies).

The study also shows that the other variable which is credit standards has a positive relationship would increase the financial performance of the deposit taking micro finance organization. Implementation of a good credit policy in an organization would increase its financial performance.

2.4 Summary of Literature Review

Credit granting procedure and control systems are necessary for the assessment of credit, which then guarantees an institution total credit portfolio as per the institutions overall integrity (Boyd, 1993). It is necessary to establish a proper credit risk environment, sound credit granting processes, appropriate credit administration, measurement, monitoring and control over credit risk by use of an optimum credit policy (Basel, 1999). Most studies have been inclined to focus on the problems of developing an effective method for the disposal of bad debts, rather than for the provision of a good credit policy framework for their prevention and control of quality portfolio (Campbell, 2007). It's therefore evident that the credit management influences the financial performance of the organizations.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter discusses the methodological approach which was used in the study. This includes; study design, study population, sample size and sampling technique, data collection and analysis.

3.1 The Research Design

This study adopted a cross-sectional survey. According to Johnson (2006), this design allows the exploration and understanding of complex issues. It is considered a robust research method particularly when a holistic, in depth investigation is required. Through the case study method, the researcher was able to go beyond the quantitative statistical results and understand the behavior conditions through the actor's perspective.

The design used both qualitative and quantitative techniques of data collection. This was supported by Amin (2005), who established that the use of mixed methods helps to research a problem from all sides, aids to focus on a single process and confirms the data accuracy.

Qualitative design was considered to be particularly suitable for gaining an in-depth understanding of underlying reasons and motivations. It provided insights into the setting of a problem and the same time, frequently generates ideas and hypotheses for later quantitative research.

Quantitative design was considered to have as its main purpose the quantification of data. This allowed generalization of results from a sample to an entire population of interest and the

measurement of the incidence of various views and opinions in a given sample (Creswell, J.W. 2012). Quantitative research was appropriate in situations in which there is preexisting knowledge which would permit the use of standardized data collection methods (e.g. the survey questionnaire) and in which it was aimed to document pervasiveness or test hypotheses Bowling, (2002)

3.2 Area of the Study

The study location for this research was in South Western Uganda in towns of Mbarara, Kasese, Ntungamo, Bushenyi Masaka, Kabale and Fortpotal.

3.3 Target population

Target population as described by Borg and Crall (2009) is a universal set of study of all members of real or hypothetical set of people, events or objects to which an investigator generalized the result. And population of 56 credit officers, branch managers or team leaders and top management of the 8 selected solar companies registered and offering credit services was selected according to Krejcie and Morgan (1970)

3.4 Sampling Technique and sampling selection

3.4.1 Sampling techniques

All managers and supervisors were considered as part of the sample size, the rest of the respondents were comprised of the sales staff as seen above.

The researcher randomly selected the sample proportionately from employees categories shown in table 3.1 below. The selection of the sample from the section was based on a lottery where a list of employees in each section was assigned a random number, put in a container.This is because it is believed that all the target respondents engaged in credit management in solar companies are in a

better position to respond to the research questions effectively Shahrokh, Dougherty& Edward R. (2014).

3.4.2 Sample selection

Out of the population study of 65 staff, that was comprised of the managers, supervisors and regular staff, a number of 56 from the companies was determined as guided by the Krejcie and Morgan (1970) methodology of choosing a sample from a given population. De Vos et al, (2005) also highlights that a sample is composed of elements that contain the most characteristic, representative or typical attributes of the population. The composition of the sample population in solar companies is tabulated in Table 1.

Table 1: Target Population

SOLAR COMPANY	Population	Sample size	Sampling technique
Barefoot Power	4	4	Purposive sampling
Solar Today	7	6	Random sampling
FRES Uganda	8	7	Random sampling
M-Kopa solar	12	9	Random sampling
Fenix International	6	5	Random sampling
Go solar	4	4	Purposive sampling
SolarNow Services (U) Ltd	22	19	Random sampling
BBox	2	2	Purposive sampling
TOTAL	65	56	Random sampling

Source: Rural Electrification Agency Report (2015).

3.5 Research Instruments

3.5.1 Questionnaires

The questionnaires were used to obtain and gather information to analyze and compare different practices of credit management in the solar companies. According to Mayer (2003) questionnaire is a set of questions which are prepared for respondents to answer. The method was mainly employed in primary data collection although observation method was used for confirmation of secondary data like monthly, quarterly annual accounts reports. The questionnaire was formulated with close ended questions based on the objectives of the study.

The use of a questionnaire in this study was important mainly because the purpose of the study. Such information was tapped best on a closed ended questionnaire because they were flexible since the busy respondents would answer in their convenient time. This also allowed respondents express their views and opinions without fear of being victimized. Closed ended questions helped the researcher to code the information easily for subsequent analysis and this narrowed down the error gap while analyzing data as observed by Sekaran, (2003). Some of the items in the questionnaire were anchored such that; 1 - Represents Strongly Agree, 2 – Agree, 3 – Neutral, 4 – Disagree and 5 Strongly Disagree.

3.5.2 Interview guide

Interviews were also used especially to the key informants like the managers, supervisors and heads of departments which allowed even the busy respondents give their thoughts.

3.6 Data collection procedure:

The questionnaires were administered to the credit staff and branch managers of solar companies through drop and pick method. This method was selected because it did not inconvenience the respondents since they could answer the questions during their free time.

3.7 Reliability and Validity

3.7.1 Validity of the instrument

Before the instruments were used, the researcher measured their validity to ensure that the instruments measured the study variables. Both face and content validity of the instruments were measured. Cooper & Schindler (2006) say that respondents are more likely to honestly complete and return instruments they perceive as having relevant content. The researcher ensured that all items in the questionnaire had face validity. With regard to content validity, the two supervisors evaluated the questionnaire for its content validity. The researcher first constructed the instruments and gave them to the supervisor for approval. The supervisor ascertained the face validity and clarity of the instrument. Changes made as recommended by the supervisor. The changes recommended by the supervisor were mainly on the wording of items. The wording of 8 items were changed to make it simpler and relevant to the research questions. After the approval, the researcher went to the field.

As recommended by Amin (2005), items that were found ambiguous and those judged inappropriate were either eliminated or adjusted. The validity of the instruments was tested using the Content Validity Index (CVI). The CVI was measured using the formula:

Content Validity Index (CVI) = Number of items declared valid/ Total number of items

The findings are shown in the table below;

Table 2: Content Validity Index

Expert	Content Validity Index	
	Questionnaire	**Interview guide**
Credit Management	0.83	0.81
Financial Performance	0.80	0.79
Average	**0.815**	**0.80**

Source: *Pilot data*

As indicated in Table 2, all CVIs for the two instruments are 0.80 and above indicating that the items in the instruments actually measured the study variables. On average, the content validity indexes for the questionnaire were 0.82, while that of the interview guide were 0.80. These values were in agreement with Amin (2005), who recommended that for an instrument to be valid for research purposes, its content validity index had to be 0.8 and above.

3.7.2 Reliability

Reliability is the measure of the degree to which a research instruments yields consistent results or data after repeated trials. A pilot study was conducted on a few personnel based at SolarNow Services (U) Limited to measure the validity and reliability of the research instrument. Those selected for piloting were selected again for the main study.

The reliability (internal consistency) of the collected data in this study was assessed by calculating the Cronbach's Alpha coefficient. Although several measures of reliability were ascertained in order to establish the internal consistency of an instrument, this method was considered to be the most general form of reliability estimation. In this method reliability is operationalized as internal consistency, which is the degree of inter correlations among the items that constitute a scale. An alpha value of 0.60 and 0.70 or above is considered to be the criteria for demonstrating internal consistency of new scales

Table 3: Reliability Statistics

Cronbach's Alpha-State for all the variables	N of Items
.617	44

A Cronbach alpha coefficient was above 0.50 which indicated that the questionnaire was reliable enough as a research instrument Sekaran, (2008). In order to improve the accuracy of the instrument, statements were kept simple in order to avoid any response biases by leading the respondents to agree or disagree with the statement. Respondents were also encouraged to express their true feelings against the statements and no names were asked to be noted down.

3.8 Data Analysis and presentation:

The Statistical Package for Social Scientists (SPSS) was used for analysis of data in this study which was the SPSS version 20.0. In attempting to analyze the data the researcher used both descriptive statistics. Qualitative data was prepared by use of code sheets which capture relative data on the study variables.

Regression was used as they analyzed linear relationships between quantitative variables that demonstrate the strength, direction, and significance of the linear relationship between the variables (Keith, 2006). Pearson's correlation coefficient was used to determine the significance of the relationship between the variables.

3.9 Ethical Considerations

The entire research process was conducted with due respect to ethical considerations in research. The researcher also obtained consent of the respondents to participate in the study. The researcher also made sure he treated respondents' views with utmost confidentiality. In general, a high degree of openness regarding the purpose and the nature of the research was observed by the researcher.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

4.0 Introduction

This chapter discusses the interpretation and presentation of the findings obtained from the field on the effect of credit management on the financial performance of solar companies in south and western Uganda. Descriptive and inferential statistics were used to discuss the findings of the study. The study targeted a population size of 59 respondents from which 56 filled in and returned the questionnaires making a response rate of 94.9%. This response rate was satisfactory to make conclusions for the study.

4.1 Background information of Respondents

In order to find out about the demographic data of the respondents questions A-E were asked from the questionnaire and the following responses were revealed.

Table 4: The Demographic data about the Respondents

Bio-data	Options	Frequency	Percentage
a) Gender	Male	42	75
	Female	14	25
b) Age Bracket (years)	20-29 years	29	51.8
	30 -39 yrs	24	42.9
	40-49yrs	3	5.3
	50yrs and above	0	0
c) Education Level	Certificate and below	6	10.7
	Diploma	15	26.8
	Degree	27	48.2
	Postgraduate and masters	8	14.3
d) Designation	Top management	7	12.5
	Middle level employee	14	25
	Lower level employee	35	62.5
e) Length of Service	Less than 2 years	15	26.8
	2-4years	29	51.8
	4years and above	12	21.4

According to the findings in table 4 above, the majority of the respondents 42 (75%) were male employees while 14 (25%) were female counterparts. This reveals that there is uneven distribution of workers in solar companies. The male respondents are more because of the nature of the industry 3:4 ratio composition in the sector. Obtaining information from both sex helped to gather more objective data.

The findings on respondents' age, 51.8% of respondents were aged between 20-29 years, 42.9% were in the age bracket of 30-39 years, 5.3% were of the bracket 40-49 years and there was no respondent above 50 years. This implies that majority of respondents were young and productive employees who gave elaborate and well thought who are actively involved in credit management and had more reliable information. Regarding respondent's levels of education, the findings revealed that 10.7% of the respondents had attained Certificate qualifications, 26.8% had completed diploma education, 48.2% were university graduates with degrees while 14.3% were postgraduate and master's holders. This implied that the majority of respondents were degree holders and enlightened to understand and interpret accurately the variables under investigation.

As reflected in table 4 above, 62.5% of the respondents were employees of the lower level management, 25% belonged to Middle level employees whereas 12.5% were members of the top management. This means that information was obtained from all the strategic levels of management with a pool of skilled personnel to ensure operations success.

Furthermore, Table 4 results indicated that 15.6% of the respondents had spent less than 2 years working in solar companies, those who had been in solar companies for 2-4 years constituted 51.8% of the total respondents, and those that had worked in solar companies for a period of 4 years and more comprised 21.4%. From these findings, it was observed the majority of the respondents had been serving for a period of 2 years and more. This implies that majority of the respondents had spent a considerable period of time working in solar companies hence understood the industry trends towards credit management and its corresponding influence on financial performance.

Table 5: Period within which Solar Company had been in existence

Period of time	Frequency	Percentage
Less than 2 years	10	17.9
Between 2 to 4 years	19	33.9
Between 4 to 6 years	27	48.2
Above 6 years	0	0
	56	100.0

Source: Research findings

The study sought to establish the length of time which the solar companies had been in existence in the organization, from the findings 17.9% of the respondents indicated less than 2 years, 33.9% of the respondents indicated 2 to 4 years 48.2% of the respondents indicated between 4 to 6 years this implies that most of the solar companies had been in existence for 4 to 6 years.

Table 6: Adoption of Credit Management Practices

	Frequency	Percentage
Yes	56	100.0
No	0	0.0
Total	56	100.0

Source: Research findings

The study sought to determine the organizations that had adopted Credit Management practices. From the findings all the respondents indicated that their organizations had adopted Credit

Management practices, this implies that all organizations had adopted the use Credit Management practices.

Table 7: Clients the organization has

Number of clients	Frequency	Percentage
Less than 500		
Between 500 to 1000	8	14.3
Between 1000 to 5000	16	28.6
Above 5000	32	57.1
	56	100.0

Source: Primary Data

The study sought to determine the number of clients the organization had, from the findings 14.3 % of the respondents indicated that their organization had between 500 to 1000 clients, 28.6% of the respondents indicated that their organization had Between 1000 to 5000 Clients, where as 57.1% of the respondents indicated that their organization had more than 5000 clients this implies that majority of the organizations featured in this study had more than 5000 clients

Table 8: Availability of the credit department in the solar company

	Frequency	Percentage
Yes	28	50.0
No	24	42.9
Neutral	4	7.1
Total	56	100.0

Source: Primary Data

The study sought to find out whether solar companies had credit departments. According to the findings, 50.0% had a credit department while 42.9% did not have and 7.1% were not sure. This finding indicates that majority of the solar companies under study had a credit department hence it can be inferred that they were practicing credit management.

4.2 The effect of Credit appraisal on financial performance

Table 9: Extent to which solar companies use client appraisal in Credit Management

	Frequency	Percentage
Very great extent	6	10.7
Great extent	15	26.8
Moderate extent	5	8.9
Low extent	21	37.5
Not at all	9	16.1
Total	56	100.0

Source: Primary Data

The study sought to determine the extent to which Solar companies used client appraisal in Credit Management, from the findings 10.7% of the respondents indicated to a very great extent, 26.8% of the respondents indicated to a great extent, 8.9% moderate extent, 37.5% to low extent whereas 16.1% of the respondents indicated not at all, this implies that most solar companies used client appraisal in Credit Management to a great extent.

Table 10: Level of agreement on client appraisal in solar companies

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Client appraisal is a viable strategy for credit management.	28	24	4			1.57	.628
The solar company has competent personnel for carrying out client appraisal.	7	23	7	18	1	2.70	1.111
Client appraisal considers the character of the customers seeking credit facilities.	15	33	8			1.88	.634
Aspects of collateral are considered while appraising clients.	7	23	7	18	1	2.70	1.111
Failure to assess customers capacity to repay results in loan defaults	17	35	5	2		1.86	.724

Source: Primary Data

The study sought to establish the level at which respondents agreed or disagreed with the above statements relating to client appraisal in Solar Companies, from the findings majority of them respondents agreed that Client appraisal is a viable strategy for credit management as shown by a mean of 1.57, Aspects of collateral are considered while appraising clients as shown by a mean of 2.70. Failure to assess customers' capacity to repay results in loan defaults as shown by a mean of 1.86, Client appraisal considers the character of the customers seeking credit facilities as shown by a mean of 1.57 and that the solar companies have competent personnel for carrying out client appraisal as shown by a mean of 2.70.

Interview results

The majority of the credit managers said that,
"most of the sales people make credit appraisals in order to make customers qualify for credit sales since the sales officers want to close sales ignoring the quality of the sale in terms of risk of default. This has led to rise of Portfolio at Risk to undesirable lady"

4.3 The effect of Credit Risk Controls on financial performance

Table 11: Extent to which solar companies use credit risk control in Credit Management

	Frequency	Percentage
Very great extent	2	3.6
Great extent	8	14.3
Moderate extent	24	42.9
Low extent	16	28.6
Not at all	6	10.7
Total	56	100.0

Source: Primary Data

The study sought to determine the extent to which solar companies used credit risk control in Credit Management, from the findings 42.9% of the respondents indicated to a moderate extent, 28.6% of the respondents indicated to a low extent whereas 14.3% of the respondents indicated to a great extent, this implies that solar companies used credit risk control in Credit Management to a moderate extent.

Table 12: Level of agreement on credit risk control in solar companies

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Imposing credit limits is a viable strategy in credit management	27	22	4	3	0	1.70	.829
The use of credit checks on regular basis enhances credit management.	21	29	6		0	1.73	.648
Flexible repayment periods improve loan repayment.	28	25	3		0	1.55	.601
Penalty for late payment enhances customers commitment to loan repayment	11	27	8	10	0	2.30	.989
The use of customer credit application forms improves monitoring and credit management as well	27	28	1		0	1.54	.538
Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk	19	35	2		0	1.70	5.37
Interest rates charged affect performance of loans in the solar companies	15	24	9	8	0	2.18	.993

Source: Primary Data

The study sought to establish the level at which respondents agreed or disagreed with the above statement relating to credit risk control in Solar Companies, from the findings, the study established that majority of the respondents strongly agreed that interest rates charged affect performance of

loans in the solar companies as shown by a mean of 2.18, Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk as shown by a mean 1.70 other agreed that, The use of credit checks on regular basis enhances credit management, Penalty for late payment enhances customers commitment to loan repayment as shown by a mean 2.30 in each case, The use of customer credit application forms improves monitoring and credit management as well, as shown by a mean 1.54, Flexible repayment periods improve loan repayment as shown by a mean 1.55, and that the use of credit checks on regular basis enhances credit management as shown by a mean 1.73.

Interviews with The head of operations for M-Kopa and Fenix International, said that they had established use of remote control system to switch off clients in case of default but this has also failed to solve the problem of delinquency since some of the clients decide to remain in darkness for some good days. Also the credit manager of SolarNow Services (U) Limited informed that they have tightened the credit processes where by a client has to be fully assessed and a lot of reference checks are done whereby six (6) references have to be contacted before the approval. Also credit limit has been set up to 15 million Uganda Shillings in order to minimize the risk

4.4 The effect of Credit Policy on financial performance

Table 13: Extent to which Solar Companies use credit policy in Credit Management

	Frequency	Percentage
Very great extent		
Great extent	16	28.6
Moderate extent	16	28.6
Low extent	17	30.4
Not at all	7	12.5
Total	56	100.0

Source: Primary Data

The study sought to determine the extent to which solar companies use credit policy in Credit Management, from the findings 30.4 % of the respondents indicated to a low extent, 28.6% of the respondents indicated to a very great extent and moderate extent respectively whereas 12.5% of the respondents indicated to a not at all, this implies that solar companies use credit policy in Credit Management to a low extent.

Table 14: **Level of agreement on credit policy of solar companies**

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree	Mean	Standard Deviation
Available credit policies have assisted towards effective credit management.	11	38	7	0	0	1.93	.568
Formulation of credit policies have been a challenge in credit management.	35	21		0	0	1.95	.699
Enforcement of guarantee policies provides chances for loan recovery in case of loan defaults	15	29	12	0	0	1.95	.699
Staff incentives are effective in improving recovery of delinquent loans.	26	29	1	0	0	1.55	.537
Regular reviews have been done on credit policies to improve state of credit management.	13	18	14	11	0	2.41	1.058
A stringent policy is more effective in debt recovery than a lenient policy	24	32	0	0	0	1.57	.499

Source: Primary Data

The study sought to establish the level at which respondents agreed or disagreed with the above statements relating to credit policy of solar companies. From the findings majority of the respondents strongly agreed that formulation of credit policies have been a challenge in credit management as shown by a mean of 1.93 others agreed that enforcement of guarantee policies provided chances for loan recovery in case of loan defaults as shown by a mean of 1.95 , staff incentives are effective in

improving recovery of delinquent loans as shown by a mean of 1.55, a stringent policy is more effective in debt recovery than a lenient policy as shown by a mean of 1.57.

The credit managers and operations managers said that,

"credit policies have been formulated and put in place others are still being formulated to make operations of credit run smoothly. Contracts for clients have been developed with terms and conditions. The policies highlight the process for one to get solar system on credit, requirements, managing the credit facility through monitoring and recovery process in case of default"

4.1.5 Effects of credit management on financial performance of solar company

Table 15: The extent to which credit management impacts on financial performance of Solar companies

Statement	Frequency	Percentage
Very great extent	2	3.6
Great extent	17	30.4
Moderate extent	23	41.1
Low extent	8	14.3
Not at all	6	10.7
Total	56	100.0

Source: Primary Data

The study sought to determine the extent to which credit management impacts on financial performance of Solar companies, from the findings 41.1% of the respondents indicated to a moderate extent, 30.4% of the respondents indicated to a great extent, 14.3 of the respondents indicated to a low extent, 10.7 of the respondents indicated not at all whereas 3.2% of the respondents indicated to a very great extent, this implies that solar companies used credit risk control in Credit Management to a moderate extent.

Table 16: Measures with regards to financial performance of solar company

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly	Mean	Standard Deviation
Default rate	15	32	9	0	0	1.89	.652
Recovery rate	8	22	19	7	0	2.45	.893
Profitability	23	25	8	0	0	1.73	.700
Portfolio at Risk (PAR)	27	29	0	0	0	1.52	.504
Interest Income	18	23	11	4	0	2.02	.904

Source: Primary Data

According to the table, the respondents agreed that portfolio at risk, default rate and profitability are good measures for financial performance as their standard deviations are not close to 1.0 whereas the respondents disagreed that recovery rate and interest income are good measures of the financial performance of the solar companies as their standard deviations drew closer to one (1.0)

4.2 Regression Analysis

Table 17: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.857(a)	.740	.736	.246

a. Predictors: client appraisal, credit risk control and collection policy

Adjusted R squared is coefficient of determination which tells the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.736 an indication that there was variation of 73.6% on performance of solar companies in South West Uganda due to changes in client appraisal, credit risk control and collection

policy at 95% confidence interval. This shows that 73.6% changes in performance of solar companies could be accounted for by client appraisal, credit risk control and collection policy. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.857. The remaining 26.4% is contributed by other factors.

Table 18: ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.892	1	9.892	205.776	.000(a)
	Residual	3.465	54	.064		
	Total	13.357	55			

a. Predictors: client appraisal, credit risk control and credit policy

b. Dependent Variable: financial performance

From the ANOVA statistics in table above, the processed data, which is the population parameters, had a significance level of 0.000 which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%. There is an indication that client appraisal, credit risk control and collection policy significantly influences financial performance of solar companies in Uganda. The significance value was less than 0.05 indications that the model was statistically significant.

Table 19: Table of coefficients

Model		Unstandardized Coefficients		Significancy.
		B	Std. Error	Std. Error
1	(Constant)	.341	.133	.013
	Credit appraisal	.919	.064	.000
	credit policy	.829	.099	.000
	credit risk control	.917	.050	.000

a Dependent Variable: financial performance

From the data in the above table the established regression equation was

$Y = 0.341 + 0.919C_1 + 0.829C_2 + 0.917C_3$

Where:

Y= Financial Performance

C_1= Credit appraisal

C_2=Credit Policy

C_3= Credit Risk Control

From the above regression equation it was revealed that holding client appraisal , credit risk control and credit policy to a constant zero , financial performance of solar companies would be 0.341 , a unit increase in client appraisal would lead to increase in performance of solar companies by a factor of 0.919, a unit increase in credit risk control would lead to increase in performance of Solar Company by a factor of 0.892 and also unit increase in credit policy would lead to increase in performance of solar Company by a factor of 0.917.

CHAPTER FIVE

DISCUSSION, SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS

5.1 Introduction

This chapter presents the discussion of key data findings, conclusion drawn from the findings highlighted and recommendations made there-to. The conclusions and recommendations drawn were focused on addressing the objective of the study. The researcher had intended to examine the influence of credit management on the financial performance of Solar Companies in South Western Uganda

5.1 Discussion of the major findings

5.1.1 To determine the effect of client appraisal on financial performance of solar companies:

The study revealed that solar companies in Uganda use client appraisal in Credit Management to a moderate extent. Further it established that client appraisal is a viable strategy for credit, Aspects of collateral are considered while appraising clients, failure to assess customer's capacity to repay results in defaulting, client appraisal considers the character of the customers seeking credit facilities and that solar companies have limited competent personnel for carrying out client appraisal.

Table 10. Indicate that most solar companies used client appraisal in Credit Management to a moderate extent. Through interviews some of the respondents informed me that the sales officers aim at increasing the sales numbers and volumes and they end up giving people who have the ability and/or willingness to pay. This has contributed poorly on their financial performance.

5.1.2 To determine the effect of credit risk control on financial performance of solar companies

The study established that solar companies use credit risk control in Credit Management to a moderate extent. The study further established that interest rates charged affects performance of loans in the solar companies in South Western Uganda, Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk, the use of credit checks on regular basis enhances credit management, Penalty for late payment enhances customers commitment to loan repayment, the use of customer credit application forms improves monitoring and credit management, flexible repayment periods improve loan repayment and finally that the use of credit checks on regular basis enhances credit management as reported in Table 13.

Through the interview guide with some of the respondents from M-Kopa and Fenix International, it was established that they use remote control system to switch off clients in case of default but this has also failed to solve the problem of delinquency since some of the clients decide to remain in darkness for some good days.

5.1.2 To determine the effect of collection policy on financial performance of solar companies

The study revealed that solar companies use credit policy in Credit Management to a moderate extent as presented in Table 14. Formulation of credit policies have been a challenge in credit management, enforcement of guarantee policies provides chances for loan recovery in case of loan defaults, staff incentives are effective in improving recovery of delinquent loans, a stringent policy is more effective in debt recovery than a lenient policy, regular reviews have been done on credit policies to improve state of credit management, and finally that available credit policies could assist towards effective credit management.

5.2 Summary

The findings are in line with Glen, (2010) who argues that credit is so costly to financial institutions as they influence the profits of deposit taking micro finance institutions. She further stresses that losses have been the largest cost borne by financial intermediaries and the principal cause of insolvency, and increased reliance on state bailouts thus affecting the organizational profitability. The findings are in agreement with Van Horne et al, (1997) who contends that credit policies are the chief influences on the level of a firm's financial performance. Policies save time by ensuring that the same issue is not discussed over and over again each time a decision is to be made. This ensures that decisions are consistent and fair and that people in the same circumstance get treated in the same manner (Khandkar and Khan, 1998).

According to McNaughton (1996), credit policy provides a frame work for the entire management practices. Most financial institutions have written credit policies which are the cornerstone of sound credit management, they set objectives, standards and parameters to guide micro finance officers who grant loans and manage loan portfolio.

The objective of the study was to establish the effects of credit policy on the financial performance of solar companies in South Western Uganda. This was a cross-sectional survey. The population of interest in this study consists of the eight licensed solar companies in Uganda. The study used data obtained from the field by using questionnaires and interview guide. The variables of interest i.e. credit appraisals, credit policy and credit risk controls were entered into statistical package for social sciences model and analyzed to examine their relationship and hence achieve the research objective.

The coefficients were put into a regression model to determine the relationship between independent and dependent variables in attaining the desired results on the study of interest. It is evident from our statistics that the coefficients of credit appraisal credit policy and credit risk controls are positive and influences financial performances of solar companies.

5.3 Conclusion

From the findings, the study found that client appraisal, credit risk control and credit policy had effect on financial performance of solar companies. The study established that there was strong relationship between financial performance of solar companies and client appraisal, credit risk control and credit policy.

The study revealed that any improvement in client appraisal would lead to increase in performance of solar companies in Uganda; This can be done through proper assessment of the client's ability (capacity) and willingness (character) to pay back. This is an indication that there was positive association between client appraisal and financial performance of solar companies. An increase in credit risk control would lead to increase in performance of solar companies in Uganda, which shows that there was positive relationship between financial performance of solar companies in Uganda and credit risk control and a unit increase in credit policy would lead to increase in performance; this is an indication that there was a positive relationship between financial performance of solar companies and credit policy. Client appraisal, credit risk control and credit policy significantly influence performance of solar companies in Uganda.

5.4 Recommendations

The study recommends that solar companies should enhance their credit policy by adapting a more stringent policy to a lenient policy for effective debt recovery. The findings are in agreement with Van Horne et al, (1997) who contends that credit policies are the chief influences on the level of a firm's financial performance. Policies save time by ensuring that the same issue is not discussed over and over again each time a decision is to be made. This ensures that decisions are consistent and fair and that people in the same circumstance get treated in the same manner (Khandkar and Khan, 1998). According to McNaughton (1996), credit policy provides a frame work for the entire management practices. Most financial institutions have written credit policies which are the cornerstone of sound credit management, they set objectives, standards and parameters to guide micro finance officers who grant loans and manage loan portfolio.

The study also recommends that there is need for solar companies to enhance their client appraisal techniques so as to improve their financial performance. Through client appraisal techniques, the solar companies will be able to know credit worth clients and thus reduce their non-performing loans.

There is also need for solar companies to enhance their credit risk control this will help in decreasing default levels as well as their non-performing loans. This will help in improving their financial performance.

5.6 Areas for Further Research

The study sought to determine the effect of credit management on the financial performance of solar companies in South West Uganda. The researcher suggests that further study should be undertaken in order to investigate the determinants of credit risk in solar companies in Uganda. Findings from such study will provide more insight on the relationship between the said determinants, which could be useful in informing risk management strategies and policy in Uganda solar companies.

The study also suggests that a further study should be carried out to determine how credit risk management can increase financial stability in solar companies in Uganda. This will offer a broad analysis on impact of credit risk management on profitability in Uganda

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APPENDICES

Appendix 1: Letter of Introduction

Letter of Introduction

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: APPLIED QUESTIONNAIRE

I am a student at Kyambogo University undertaking a Masters Degree in Business Administration of Kyambogo University; I am currently undertaking a postgraduate research project on ***"Credit management and financial performance of solar energy companies in South Western Uganda"*** as a partial fulfillment of my degree requirements.

Attached herewith is a questionnaire that I am requesting to be completed. All the information you will provide will remain strictly confidential.

If you are interested in the findings of this research, it shall be mailed to you upon request.

Your cooperation and existence will be highly appreciated.

Sincerely,

.....

Baguma Keneth

Student Kyambogo University

Appendix 2: Questionnaire

Name of Solar company .....

Part A: General Information

Section A: Background Information

Instruction: Please tick the most appropriate option that applies to the topic of study in relation to your organization.

1). Gender: Male ☐ Female ☐

2). Age Bracket:

20-29 years ☐ 30-39 years ☐

40-49 years ☐ 50 years and above ☐

3). Qualification

Certificate and below Diploma ☐ ☐

Degree ☐ Postgraduate & master's degree ☐

4). Length of service at the solar company

Less than 2 years ☐ 2-4 years ☐ 4 years and over ☐

5). For how long has your solar company been in existence?

Less than 2 years ☐ Between 2 to 4 years ☐

Between 4 to 6 years ☐ Above 6 years ☐

6). Has your organization adopted Credit Management practices?

Yes ☐ No ☐

7). How many clients does your organization have?

Less than 500 clients ☐ Between 500 to 1000 Client ☐

Between 1000 to 5000 clients ☐ Above 5000 client ☐

8). Do you have a credit department in the solar company?

Yes ☐ No ☐

Section B: Credit Management Practices

CLIENT APPRAISAL

9). To what extent does the solar company use client appraisal in Credit Management?

Very great extent ☐

Great extent ☐

Moderate extent ☐

Low extent ☐

Not at all ☐

10). What is your level of agreement on the following statements relating to client appraisal in solar companies?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Client appraisal is a viable strategy for credit management.					
The solar company has competent personnel for carrying out client appraisal.					
Client appraisal considers the character of the customers seeking credit facilities.					
Aspects of collateral are considered while appraising clients.					
Failure to assess customers capacity to repay results in loan defaults					

CREDIT RISK CONTROL

11). To what extent does the Solar company use credit risk control in Credit Management?

Very great extent ☐

Great extent ☐

Moderate extent ☐

Low extent ☐

Not at all ☐

12). What is your level of agreement on the following statements relating to credit risk control in solar companies?

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Imposing loan size limits is a viable strategy in credit management					
The use of credit checks on regular basis enhances credit management.					
Flexible repayment periods improve loan repayment.					
Penalty for late payment enhances customers commitment to loan repayment					
The use of customer credit application forms improves monitoring and credit management as well					
Credit committees involvement in making decisions regarding loans are essential in reducing default/credit risk					
Interest rates charged affect performance of loans in the solar companies					

CREDIT POLICY

13). To what extent does the solar companies use credit policy in Credit Management?

Very great extent ☐

Great extent ☐

Moderate extent ☐

Low extent ☐

Not at all ☐

14). What is your level of agreement on the following statements relating to credit policy of solar companies?

Statement	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Available credit policies have assisted towards effective credit management.					
Formulation of credit policies have been a challenge in credit management.					
Enforcement of guarantee policies provides chances for loan recovery in case of loan defaults					
Staff incentives are effective in improving recovery of delinquent loans.					
Regular reviews have been done on collection policies to improve state of credit management.					
A stringent policy is more effective in debt recovery than a lenient policy					

PART C: Effects of credit management on financial performance of solar company

15). Please rate the extent to which credit management impacts on financial performance of your Solar company?

Very great extent ☐

Great extent ☐

Moderate extent ☐

Low extent ☐

Not at all ☐

16). Please rate the following measures with regards to the financial performance of your Solar Company:

Measures	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Default rate					
Recovery rate					
Profitability					
Portfolio at Risk (PAR)					
Interest Income					

Thank you

Appendix 3: Interview Questions

1. How does your solar company carry out the client appraisals?
2. What are the current interventions used in your solar company to assist in the loan decision process?
3. Do you think that all credit officers should acquire a required skill set i.e. specific education qualifications and experience?
4. What measures have you put in place to minimize the risks involved in granting credit sales?
5. What is your opinion on this statement: The longer the duration of a credit distributed in your solar company the more likely the loan will default?
6. What are the current interventions used in the recovery of arrears?
7. Do you think your current credit management process needs revision?
8. What extra elements do you think could be incorporated into your credit management process to make it more robust?
9. What are the main challenges do you think your solar company faces in implementing the credit policy?

Appendix 4: Table for sample determination

Population size	Sample size	Population size	Sample size	Population size	Sample size	Population size	Sample size	Population size	Sample size
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

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