

**THE RELATIONSHIP BETWEEN CREDIT RISK MANAGEMENT PRACTICES AND  
FINANCIAL PERFORMANCE OF PRIVATE HOSPITALS IN KENYA**

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**DECLARATION**

This research project is my original work and has not been presented in any other university.

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## **DEDICATION**

This project is dedicated to my dear family who have been very supportive and kept on encouraging me when things were beyond my take. For the endless support I received from my supervisor, lecturers and friends.

To all those who made this project a success in one way or the other.

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## **ABSTRACT**

Credit risk is the risk that a financial institution will incur losses because the financial position of a borrower has deteriorated to the point that the value of an asset (including off-balance-sheet assets) is reduced or extinguished. Credit risk is most simply defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The objective of the study was to establish the relationship between the credit risk and financial performance of private hospitals in Kenya.

In this study, causal study design was used. The objective of causal research is to test hypotheses about cause-and-effect relationships. The population of this study comprised of all licensed private hospitals in Nairobi. Currently there are about 50 licensed private hospitals according to Kenya Medical Practitioners and Dentists Board Committees 2010 database. The researcher used both primary and secondary data. Primary data was obtained through self-administered questionnaires with closed and open-ended questions. A 5-point likert scale was used to determine the impact of credit management practices on performance of private hospitals in Kenya. Descriptive statistics such as means, standard deviation and frequency distribution were used to analyze the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. This ensured that the gathered information is clearly understood. SPSS version 17 was used in capturing and building the data and thereafter analyzed through the use of regression analysis.

The findings were that private hospital considers risk identification as a process in credit risk management. Credit risk management procedures can be used to influence profitability of the private hospitals and recommends the management of the private hospitals to oversee facilitation of credit risk management as a substantial degree of standardization of process and documentation.

In addition, the study concludes that director's report on risk monitoring enables the private hospital management to discover mistake at early stage and make sure that risk management practices are in line with proper risk monitoring.

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

Strong credit risk management practices can help institutions to reduce their exposure to credit risks, and enhance their ability to compete in the market with other well established financial institutions like private hospitals (Basel 1999). A reduction in private hospital exposure to credit risks will enable achieving of the private hospitals set objectives and ascertain its success. Therefore, it is necessary that private hospitals have in place a comprehensive risk management practices and reporting process to identify, measure, monitor, manage, report and control credit risks. Efficient credit risk management practices have been vital in allowing the phenomenal growth in credit unions. The effective management of credit risk by private hospitals and other financial institutions is critical to private hospital's viability and sustained growth. Failure to control credit risk, may lead to insolvency (Greuning and Iqbal, 2007).

According to Marshall and Siegel, (1996), there are also some risks that can be eliminated, or at least substantially reduced through the technique of risk transfer. Markets exist for many of the risks borne by the private hospital. Interest rate risk can be transferred by interest rate products such as swaps or other derivatives. Borrowing terms can be altered to effect a change in their duration. Finally, the hospital can buy or sell financial claims to diversify or concentrate the risks that result in from servicing its client base. To the extent that the financial risks of the assets created by the firm are understood by the market, these assets can be sold at their fair value. Unless the institution has a comparative advantage in managing the attendant risk and/or a desire for the embedded risk they contain, there is no reason for the hospital to absorb such risks, rather than transfer them (Morsman, 1993)

#### **1.1.1 Credit Risk Management**

Credit risk is the risk that a financial institution will incur losses because the financial position of a borrower has deteriorated to the point that the value of an asset (including off-balance-sheet assets) is reduced or extinguished. Credit risk is most simply defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximize an organization's risk-adjusted rate of return by

maintaining credit risk exposure within acceptable parameters (Kealhofer, 2003). Organizations need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. The organizations should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any organization (Bofondi and Gobbi, 2003).

The importance of credit risk management is increasing with time because of some reasons like economic crises and stagnation, company insolvencies, infraction of rules in company accounting and audits, growth of off-balance sheet derivatives, declining and volatile values of collateral, borrowing more easily of small firms, and financial globalization.

According to Fuser and Meier, (1999), institutions use various credit risk management methods such as credit limits, taking collateral, diversification, loan selling, syndicated loans, credit insurance, and securitization and credit derivatives. It is important for staff of various institutions to understand the aspect of risk in their operations and the risks that are inherent and exposed in their business operations. Better understanding of risk management is also necessary especially in the financial intermediation activities where managing risk is one its important activities. The management of CR in health industry follows the process of risk identification, measurement, assessment, monitoring and control. It involves identification of potential risk factors, estimate their consequences, monitor activities exposed to the identified risk factors and put in place control measures to prevent or reduce the undesirable effects. This process is applied within the strategic and operational framework of the organization.

### **1.1.2 Private Hospitals in Kenya**

The health sector like any other sector in Kenya has experienced hard times in the last decade or so. This is mainly due to hard economic times facing the country and other forces such as change in technology, liberalization, expectation of patients, rising levels of poverty, poor infrastructure etc. all these changes have made it hard and very expensive to deliver health care in the country.

Kenya has an extensive network of private hospitals from small local clinics, to large high-class hospitals. Unlike the public hospitals, private hospitals are more expensive, but are extremely efficient due to the low demand and small crowds. Quality healthcare is provided through Kenya's private hospitals and healthcare facilities, which are known to be very expensive.

Private hospitals are preferred by patients of middle and upper classes. Despite the fact that public hospitals are sometimes better equipped than some of private hospitals, many patients prefer going to a private hospital because of the personal and friendly care offered. The entire sum of money that is required in constructing a public hospital comes from the local government. The private hospitals are managed by a single person or a group of people. Therefore, a single person or a group manages the entire hospital, the government has nothing to do or say as regards the funding or administration. People generally prefer the private hospital the other.

Since the private hospitals offer better facilities they are extremely costly at times. This is perhaps due to a wide number of facilities that are available at the private hospital. It has been seen people who are not so affluent gets admitted in Public hospitals. Although there are abundant qualified doctors in a public hospital, a private hospital offers a better health care treatment. In a private hospital the equipment are of standard quality and generally there is lesser risk for the patient since a large number of people looks after a single patient. In a public hospital, the case may be entirely different. There may be a single or no person at all to be looking after an ailing patient. This increases the risk for the patient and therefore the public hospitals are necessarily cheaper than the private hospitals.

## **1.2 Statement of the Problem**

Granting credit to the members is an important activity thus the importance of credit risk management in these institutions, coupled with taking necessary measures to reduce loan defaulters which at the same time advancing credit in a fair and undiscriminating manner so as to continue offering service to their members. Weak credit risk management is a primary cause of many business (particularly small business) failures Parrenas (2005) carried out a study of private that failed in the mid-1980s in the U.S.A and found out that the consistent element in the

failures was the inadequacy of the hospital's management system for controlling loan quality. A common approach to customer's credit selection and analysis is the use of the "six Cs" of credit as an initial screening and risk assessment advice. These Cs are: the capacity, capital, character, collateral, conditions and control. Generally institutions are expected to manage their credit risk to avoid exposing their organization to unnecessarily high level of risk and subsequently a decline in returns.

A lot of research has been done in developed countries on credit risk management but very little on the impact of credit risk management practices on performance of private hospitals. Since 1990, a few hospitals have closed down with court bails and deposit money paid to utility firms such as Kenya power and lighting company. There are also 200 Billion unclaimed from private hospitals including hospitals as the owners live in poverty (Fuser et al, 1999).

Locally, a few studies have been done on credit risk management and among them are credit risk management by coffee coops in Embu district (Njiru, 2003), survey of credit risk management practices by pharmaceutical manufacturing firms in Kenya (Nduku, 2007) and assessment of credit risk management techniques adopted by microfinance institutions in Kenya (Mwirigi, 2006). To the researcher's understanding, no study has been done in Kenya on the impact of credit risk management practices on the performance of private hospitals in Kenya. Based on this evaluation, there is a knowledge gap in literature to warrant a research to be conducted in this industry. This study therefore seeks to fill the existing gap by investigating the relationship between credit risk management practices and financial performance of private hospitals in Kenya. The study will also seek to provide answers on how do private hospitals in Kenya identify, analyze and assess risks associated with credit? Which are the risk monitoring procedures used by private hospitals to monitor credit risks by private hospitals? Finally, which risk management procedures are employed by private hospitals in Kenya?

### **1.3 Objectives of the Study**

The objective of the study was to establish the relationship between the credit risk and financial performance of private hospitals in Kenya

### **1.4 Significance of the Study**

#### **Private Hospitals Managers**

The study will be beneficial to private hospitals managers as its focus is on credit risk management which is the core source of business for many private hospitals. The study will present varied practices which can be shared by many private hospitals in the industry.

#### **Credit managers**

In academia, the study will add value to academic research in the broader area of credit management. Future researchers will use this study as a form of reference for future studies, the study will also suggest future research activities that can be explored.

#### **Academic Researchers**

Finally, the study will contribute to the broader realm of business and academic research. In business, through its recommendations, the study will add value to better credit management practices in businesses and service quality.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter presents the literature review on the credit risk management. The chapter presents theoretical background and defines the process of risk management. The specific areas covered here include credit risk management, credit risk management practices, credit risk management procedures and finally the impact of credit risk management practices on performance.

### **2.2 Theoretical Review**

#### **2.2.1 Portfolio Theory**

Modern Portfolio Theory (MPT) proposes how rational investors should use diversification in order to optimize their portfolios. It also discusses how a risky asset should be priced. This does not mean that the early economists ignored financial markets Altman (1993) had already outlined the basic functions of credit markets for economic activity, specifically as a way of allocating resources over time and had recognized the importance of risk in the process. In developing their theories of money, Auronen (2003,) had already conceived of portfolio selection theory in which uncertainty played an important role.

However, for many economists during this early period, financial markets were still regarded as mere casinos rather than markets properly speaking. In their view, asset prices were determined largely by expectations and counter-expectations of capital gains and thus they were held up by their own bootstraps as it were. John Maynard Keynes's beauty contest analogy is representative of this attitude. As such, a good amount of ink was spent on the topic of speculative activity (i.e. the purchase/temporary sale of goods or assets for later resale). For instance, in their pioneering work on futures markets Baldoni (1998), argued that the price of a futures contract for delivery of a commodity will be generally below the expected spot price of that commodity (what Keynes called normal backwardation). This, Keynes and Hicks argued, was largely because hedgers shifted their price risk onto speculators in return for a risk premium Donaldson (1994)) went on to analyze the question of whether speculation was successful in stabilizing prices and, in so doing, expanded Keynes's theory of liquidity preference considerably.

### **2.2.2 Pricing Theory**

The Markowitz-Tobin theory was not very practical. Specifically, to estimate the benefits of diversification would require that practitioners calculate the covariance of returns between every pair of assets. In their Capital Asset Pricing Model (CAPM), Fama (1994) solved this practical difficulty by demonstrating that one could achieve the same result merely by calculating the covariance of every asset with respect to a general market index. With the necessary calculating power reduced to computing these far fewer terms (betas), optimal portfolio selection became computationally feasible.

The famous theory of option pricing by Fama (1994) and Sundarajan (2007) relies heavily on the use of arbitrage reasoning. Intuitively, if the returns from an option can be replicated by a portfolio of other assets, then the value of the option must be equal to the value of that portfolio, or else there will be arbitrage opportunities. Arbitrage logic was also used by Tchankova (2002) to value multi-period (i.e. long-lived) securities. All this spills over into the Neo-Walrasian theories of general equilibrium with asset markets (complete and incomplete) developed by Tellis (1997) and many others since.

### **2.2.4 Efficient Markets Theory**

The second important strand of work on finance was the empirical analysis of asset prices. A particularly disturbing finding was that it seemed that prices tended to follow a random walk. More specifically, as documented already by Tchankova (2002) (for commodity prices) and later confirmed in further studies by Treacy and Carey (1998) (for a variety of price series), Tchankova (2002) for American stock prices) and Uyemura and Deventer (1993) (for British stock and commodity prices), it seemed as there was no correlation between successive price changes on asset markets. The Working-Cowles-Kendall empirical findings were greeted with horror and disbelief by economists. If prices are determined by the forces of supply and demand, then price changes should move in particular direction towards market clearing and not randomly. Not everyone was displeased with these results, however. Many viewed them as proof that the fundamentalist theory was incorrect, i.e. that financial markets really were wild casinos and that finance was thus not a legitimate object of economic concern. Yet others crowed that it proved the failure of traditional statistical methods to illuminate much of anything.



High-powered time series methods were used by Morsman (1993), but they came up with the same randomness result.

More disturbingly, the EMH has not pleased economists. EMH is probably one of the more resilient empirical propositions around yet it does not seem to have a clearly sound theoretical standing. It all seems to collapse on one particular objection: namely, that if all information is already contained in prices and investors are fully rational, then not only can one not profit from using one's information, indeed, there might not be any trade at all! These peculiar, contradictory implications of rational expectations were demonstrated by Khan and Ahmed (2001).

### **2.3 Empirical Review**

There are many conceptual studies that show the important aspects of risk management process that firms need to have in order to practice risk management (Tchankova 2002; Fuser et al, 1999; Barton et al, 2002). Some empirical findings such as Al-Tamimi and Al-Mazrooei, 2007) show positive relationships between risk management practices and the various aspects of risk management process, and some findings (e.g. Boston Consulting Group, 2001; Al-Tamimi, 2002; KPMG, 2003; Parrenas, 2005; Al-Tamimi and Al-Mazrooei, 2007) show the important aspect of risk management practices by various financial institutions.

According to Iqbal and Mirakhor, 2007, every institution has an investment policy in place which defines the set of allowable assets and limits to the organization's participation in any one area; see, all institutions restrict the activity of the treasury to some extent by defining the set of activities it can employ to change the organization's interest rate position in both the cash and forward markets. Some are willing to accept derivative activity, but all restrict their positions in the swap caps and floors market to some degree to prevent unfortunate surprises. As reported losses by some institutions mount in this area, however, investment guidelines are becoming increasingly circumspect concerning allowable investment and hedging alternatives. In this area there is considerable difference in current practice. This can be explained by the different franchises that coexist in the industry. Most institutions view activity in the foreign exchange market beyond their franchise, while others are active participants. The former will take virtually no principal risk, no forward open positions, and have no expectations of trading volume (Iqbal and Mirakhor, 2007).

According to BCBS, (2001), credit risk is the oldest and important risk which institutions exposure and important of credit risk and credit risk management are increasing with time because of some reasons like economic crises and stagnation, company bankruptcies, infraction of rules in company accounting and audits, growth of off-balance sheet derivatives, declining and volatile values of collateral, borrowing more easily of small firms, financial globalization and BIS risk-based capital requirements. Greuning and Iqbal, (2007) define credit risk as the risk of losses caused by the default of borrowers. Default occurs when a borrower cannot meet his financial obligations. Credit risk can alternatively be defined as the risk that a borrower deteriorates in credit quality. This definition also includes the default of the borrower as the most extreme deterioration in credit quality. Credit risk is managed at both the transaction and portfolio levels. But, institutions increasingly measure and manage the credit risk on a portfolio basis instead of on a loan-by-loan.

According to Tchankova (2002) total receivables, including loans, leases and commitments and derivatives, are reported in a single format. Assuming the adherence to standards, the entirety of the firm's credit quality is reported to senior management monthly via this reporting mechanism. Changes in this report from one period to another occur for two reasons, loans have entered or exited the system, or the rating of individual loans has changed over the intervening time interval. The first reason is associated with standard loan turnover. Loans are repaid and new loans are made. The second cause for a change in the credit quality report is more substantive.

According to Fuser et al, (1999), many organizations are beginning to develop concentration reports, indicating industry composition of the loan portfolio. This process was initially hampered by the lack of a simple industry index. SIC codes were employed at some institutions, but most found them unsatisfactory. Reports such an industry grouping to illustrate the kind of concentration reports that are emerging as standard in organizations. For the investment management community, concentrations are generally benchmarked against some market indexes, and mutual funds will generally report not only the absolute percentage of their industry concentration, but also their positions relative to the broad market indexes. Unfortunately, there is no comparable benchmark for the loan portfolio. Accordingly, firms must weigh the pros and

cons of specialization and concentration by industry group and establish subjective limits on their overall exposure (Fuser et al, 1999).

Drzik, (1995) hold that credit report is not the result of any analytical exercise to evaluate the potential downside loss, but rather a subjective evaluation of management's tolerance, based upon rather imprecise recollections of previous downturns. In addition, there is the emergence of portfolio managers to watch over the loan portfolio's degree of concentration and exposure to both types of risk concentration discussed. Most organizations also will report concentration by individual counterparty. To be meaningful, however, this exposure must be organization wide and include all related affiliates. Both of these requirements are not easily satisfied. For large institutions, a key relationship manager must be appointed to assure that overall organization exposure to a particular client is captured and monitored. This level of data accumulation is never easy, particularly across time zones.

Fallon, (1996), asserts that each organization must apply a consistent evaluation and rating scheme to all its investment opportunities in order for credit decisions to be made in a consistent manner and for the resultant aggregate reporting of credit risk exposure to be meaningful. To facilitate this, a substantial degree of standardization of process and documentation is required. This has led to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio. In a single rating system, a single value is given to each loan, which relates to the borrower's underlying credit quality.

According to Fallon (1996), Counterparty risk comes from non-performance of a trading partner. The non-performance may arise from counterparty's refusal to perform due to an adverse price movement caused by systematic factors, or from some other political or legal constraint that was not anticipated by the principals. Diversification is the major tool for controlling nonsystematic counterparty risk. Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. In addition, counterparty's failure to settle a trade can arise from other factors beyond a credit problem.

### **2.3.1 Risk Identification**

The first step in organizing the implementation of the risk management function is to establish the crucial observation areas inside and outside the corporation. Then, the departments and the employees must be assigned with responsibilities to identify specific risks. For instance, interest rate risks or foreign exchange risks are the main domain of the financial department. It is important to ensure that the risk management function is established throughout the whole corporation; apart from parent company, the subsidiaries too have to identify risks, analyze risks and so on. There are many other approaches for risk identification, for instance, scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking components where these ranking are usually based on impact, severity or dollar effects (Barton et al. 2002). Accordingly, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently.

### **2.3.2 Risk Analysis and Assessment**

This is an important issue because there is currently no standardized method used by financial institutions for the assessment of credit risk. A critical evaluation of the most popular credit risk assessment methods: the judgmental method, credit-scoring and portfolio models, highlights a number of limitations when used on their own. Kealhofer (2003) confirm that credit risk assessment methods should be combined for effective credit risk assessment. A comprehensive risk measurement and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing in the source of funds especially investment account holders are explained by Sundararajan (2007). He concludes that the application of modern approaches to risk measurement, particularly for credit and overall organizational risks is important for the organizations. Also, he suggests that the need to adopt new measurement approaches is particularly critical for health organizations because of the role play, the unique mix of risks in finance contracts.

### **2.3.3 Risk Monitoring**

Clear established process for approving new credits and extending the existing credits has been observed to be very important while managing CR (Heffernan, 1996). Further, monitoring of borrowers is very important as current and potential exposures change with both the passage of time and the movements in the underlying variables (Donaldson, 1994; Mwisho, 2001), and also very important in dealing with moral hazard problem (Derban *et al.*, 2005). Monitoring involves, among others, frequent contact with borrowers, creating an environment that the organization can be seen as a solver of problems and trusted adviser; develop the culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrower's business through the private hospital's account; regular review of the borrower's reports as well as an on-site visit; updating borrowers credit files and periodically reviewing the borrowers rating assigned at the time the credit was granted (Donaldson, 1994; Treacy and Carey, 1998; Tummala and Burchett, 1999; Mwisho, 2001).

According to Parrenas, (2005), the shareholders of the corporation can use their rights to demand information in order to judge the efficiency of the risk management system. The director's report enables the shareholders to assess the status of the corporation knowledgeably and thoroughly. Khan and Ahmad (2001) conducted a survey of risk management practices and found that on average the lowest percentage is on the measuring, mitigating and monitoring risk that is 69% score as compared to risk management policies and procedures that is 82.4%, and internal control of organizations that is 76%. Al-Tamimi and Al-Mazrooei (2007) found that there is significant difference between UAE national and foreign private hospitals in risk monitoring and controlling.

According to Baldoni, (1998), the area of interest rate risk is the second area of major concern and on-going risk monitoring and management. Here, however, the tradition has been for the health industry to diverge somewhat from other parts of the financial sector in their treatment of interest rate risk. Most organizations make a clear distinction between their trading activity and their balance sheet interest rate exposure. Organizations generally have viewed interest rate risk as a classic part of market risk, and have developed elaborate trading risk management systems to measure and monitor exposure. For private hospital that such systems have become a required part of the infrastructure. (Akkizidis and Khandelwal, 2008). But, in fact, these trading risk

management systems vary substantially from private hospital to another and generally are less real than imagined. In many firms, fancy value-at-risk models, are up and running. But, in many more cases, they are still in the implementation phase. In the interim, simple ad hoc limits and close monitoring substitute for elaborate real time systems. While this may be completely satisfactory for institutions that have little trading activity and work primarily on behalf of clients, the absence of adequate trading systems elsewhere in the industry is a bit distressing.

#### **2.3.4 Risk Management Systems**

According to Parrenas, (2005), organizations have long viewed the problem of risk management as the need to control risks which make up most, if not all, of their risk exposure, credit, interest rate, foreign exchange and liquidity risk. While they recognize counterparty and legal risks, they view them as less central to their concerns. Where counterparty risk is significant, it is evaluated using standard credit risk procedures, and often within the credit department itself. Likewise, most hospitals would view legal risks as arising from their credit decisions or, more likely, proper process not employed in financial contracting. Accordingly, the study of organizational risk management processes is essentially an investigation of how they manage these four risks. In each case, the procedure outlined above is adapted to the risk considered so as to standardize, measure, constrain and manage each of these risks. To illustrate how this is achieved, this review of firm-level risk management begins with a discussion of risk management controls in each area. The more difficult issue of summing over these risks and adding still other, more amorphous, ones such as legal, regulatory or reputational risk, will be left to the end (Tchankova, 2002)

#### **2.4 Relationship Between Credit Risk Management Practices and Financial Performance**

The justification for studying organizations' activities by focusing on risk management can be traced to Morsman (1993), who argued that financial systems should be analysed in terms of a "functional perspective" rather than an "institutional perspective" since over long periods of time functions have been much more stable than institutions. Research on financial services has followed this functional approach by relating organizations' activities to the functions performed by them. Morsman (1993) suggested that, inter alia, the central function of a financial institution is its ability to distribute risk across different participants. According to Price Waterhouse (1994), modern financial institutions are in the risk management business as they undertake the

functions of bearing and managing risks on behalf of their customers through the pooling of risks and the sale of their services as risk specialists.

Given the importance of risk management in an organization's functioning, the efficiency of an organization's risk management is expected to significantly influence its financial performance (Haron and Hockn 2007). An extensive body of literature Tummala and Burchett (1999) argues that risk management matters for financial performance of firms. According to Parrenas (2005), risk management is an important function of financial institutions in creating value for shareholders and customers. The corporate finance literature has linked the importance of risk management with the shareholder value maximization hypothesis. This suggests that a firm will engage in risk management policies if it enhances shareholder value (Ali and Luft, 2002).

#### **2.4.1 Profitability of Organizations**

Heffernan (1996) examined efficiency versus risk in large domestic USA private hospitals and found that profit efficiency is sensitive to credit risk and insolvency risk but not to liquidity risk or to the mix of loan products. IFSB (2005) conducted an empirical study on interest rate and exchange rate exposures of institutions in pre-crisis Korea. Results indicated that Korean private hospitals had been significantly exposed to both interest rate and exchange rate risks, and that the subsequent profitability of private hospitals was significantly associated with the degree of pre-crisis exposure. The results also indicated that the Korean case highlights the importance of upgrading financial supervision and risk management practices as a precondition for successful financial liberalization.

#### **2.4.2 Liquidity of Organizations**

Risk management dictates that as long as the demand for liquidity from depositors and borrowers is not too highly correlated, the intermediary should pool these two classes of customers together to conserve on its need to hold costly liquid assets the buffer against unexpected deposit withdrawals and loan take downs. Liquidity risk management is entering a new and much more demanding era. The Basel Committee on Banking Supervision and the International Institute of Finance has set high hurdles in terms of principles and recommendations. The UK Financial

Services Authority (FSA), meanwhile, will soon be publishing its proposals for reinvigorating its liquidity risk regulations.

### **2.4.3 Growth of Organizations**

Funding growth through core deposits has become largely a thing of the past. The advent of competition and the rise of third-party funding mean that private hospitals now operate in a dynamic funding market, which requires the use of more sophisticated liquidity risk management practices. Industry experts point to many different underlying causes for the demise of growth in deposits, such as the increased financial sophistication of the public, demographic shifts, the rise of private hospitals competitors offering a whole wave of alternative investment products, new delivery systems such as the Internet, and competition from credit unions and insurance companies.

### **2.5 Summary**

According to Parrenas, (2005), organizations have long viewed the problem of risk management as the need to control risks which make up most, if not all, of their risk exposure, credit, interest rate, foreign exchange and liquidity risk. While they recognize counterparty and legal risks, they view them as less central to their concerns. Where counterparty risk is significant, it is evaluated using standard credit risk procedures, and often within the credit department itself. Likewise, most hospitals would view legal risks as arising from their credit decisions or, more likely, proper process not employed in financial contracting.

Accordingly, the study of organizational risk management processes is essentially an investigation of how they manage these four risks. In each case, the procedure outlined above is adapted to the risk considered so as to standardize, measure, constrain and manage each of these risks. To illustrate how this is achieved, this review of firm-level risk management begins with a discussion of risk management controls in each area. The more difficult issue of summing over these risks and adding still other, more amorphous, ones such as legal, regulatory or reputational risk, will be left to the end (Tchankova, 2002).



## **CHAPTER THREE: RESEARCH DESIGN & METHODOLOGY**

### **3.1 Introduction**

This chapter presents the research design and methodology that was used to carry out the research. The following subsections are discussed: The research design; the target population, data collection and analysis.

### **3.2 Research Design**

Research design refers to the way the study was designed, that is, the method used to carry out a research. In this study, causal study design was used. The objective of causal research is to test hypotheses about cause-and-effect relationships. Causal research attempts to identify a cause-effect relationship between two or more groups in Nairobi according to the ministry of health report. Causal-comparative studies involve comparison in contrast to correlation research which looks at relationship.

### **3.3 Target Population**

The population of this study comprised of all licensed private hospitals in Nairobi. The staff of private hospitals, this is the group from which the sample was drawn. Currently there are there are about 50 licensed private hospitals according to Kenya Medical Practitioners and Dentists Board Committees 2010 database. The researcher undertook a census of the population given the low number of licensed private hospitals in Kenya. The researcher targeted the managers from the various licensed private hospitals in Nairobi.

### **3.4 Data Collection**

The researcher used both primary and secondary data. Primary data will be obtained through self-administered questionnaires with closed and open-ended questions. As much as possible, a 5-point likert scale was used to determine the impact of credit management practices on performance of private hospitals in Kenya. The closed ended questions enabled the researcher to collect quantitative data while open-ended questions enabled the researcher to collect qualitative data. The questionnaire was divided into two sections. Section one was concerned with the general information about respondents. Section two dealt with the impact of credit management practices on performance of private hospitals. Secondary data was collected by use of desk

search techniques from published reports and other documents. Secondary data includes the private hospitals publications, journals, and periodicals.

### **3.5 Data Analysis**

The collected data was thoroughly examined and checked for completeness and comprehensibility. The data will then be summarized, coded and tabulated. Descriptive statistics such as means, standard deviation and frequency distribution was used to analyze the data. Data presentation was done by the use of pie charts, bar charts and graphs, percentages and frequency tables. This ensured that the gathered information is clearly understood. Data was coded and entered into the Statistical Package for Social Sciences (SPSS) version 17 for analysis. SPSS was used to perform the analysis as it aids in organizing and summarizing the data by the use of descriptive statistics such as tables.

### **3.6 Pilot Test**

A pilot test was conducted to test the reliability and validity of the data collection instruments. The questionnaires will first be pre-tested on five randomly selected employees of the private hospital where the study was conducted. A pilot survey is meant to eliminate, in advance, some of the problems that are likely to be encountered during the final survey. It is like a draft that precedes the final report and as Borg and Gall (1989) indicates ‘The purpose of the pilot exercise was to get problems out of the instrument so that the subject in the researcher’s main study would not experience any difficulties in completing the questionnaire. The questionnaire that was used in this study was tested on a sampled group of people with similar characteristics to those targeted for the final survey.

### **3.7 Model Specification**

Since the efficiency and effectiveness of the strategic performance measures used by a firm has direct effect on its performance, profitability was used to quantify the financial performance measures. The study used the natural logarithm of the previous year’s profit while the corporate government elements (risk identification, risk analysis and assessment, risk monitoring and risk management systems) were quantified using a Likert scale scores whose means were computed for each factor within the element.

Multiple Regression analysis was used to determine the extent to which each of the identified independent variables could predict the dependent variable which is credit risk management. The regression model the researcher made use of was of the form:  $(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \mu)$ , where;

Whereby  $\beta_0$  is constant of the model while  $\beta_1, \beta_2, \beta_3$  and  $\beta_4$  are the coefficients of the independent variables

Y = Financial Performance

$\beta_0$  = Constant

$\beta_1X_1$  = Risk identification variable

$\beta_2X_2$  = Risk analysis and assessment variable

$\beta_3X_3$  = Risk monitoring

$\beta_4X_4$  = Risk management systems

$\epsilon_{it}$  = an error term for the model

This model was used by Parrenas, (2005), when he carried out a research on risk monitoring procedures used by commercial banks to monitor credit risks. The data collected in the questionnaire was coded and run in Statistical Package for Social Sciences (SPSS version 17.0) so as to get the coefficient of the regression model above.

## CHAPTER FOUR: DATA ANALYSIS AND INTERPRETATION

### 4.1 Introduction

This chapter comprises the data analysis and presentation as per the research objectives. The chapter also has the summary and interpretation of findings. It has been summarized and presented in the form of tables, charts and narratives. The study targeted 50 licensed private hospitals in collecting data with regard to establishing credit risk management techniques on performance of private hospitals in Kenya. From the study, 30 out of the 50 sample respondents filled-in and returned the questionnaires making a response rate of 60%. This reasonable response rate was made a reality after the researcher made personal calls and visits to remind the respondent to fill-in and return the questionnaires.

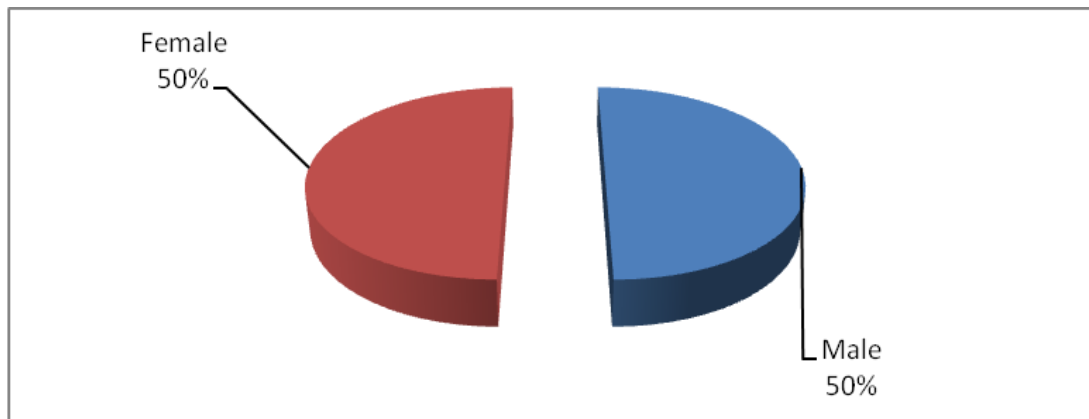
### 4.2 Data Analysis and Presentation

#### 4.2.1 Data Analysis

##### 4.2.1.1 Gender of the Respondents

Fifty percent of the respondents were male while 50% of them were female. This implies that there was no gender biasness in recruiting staff in the private hospitals.

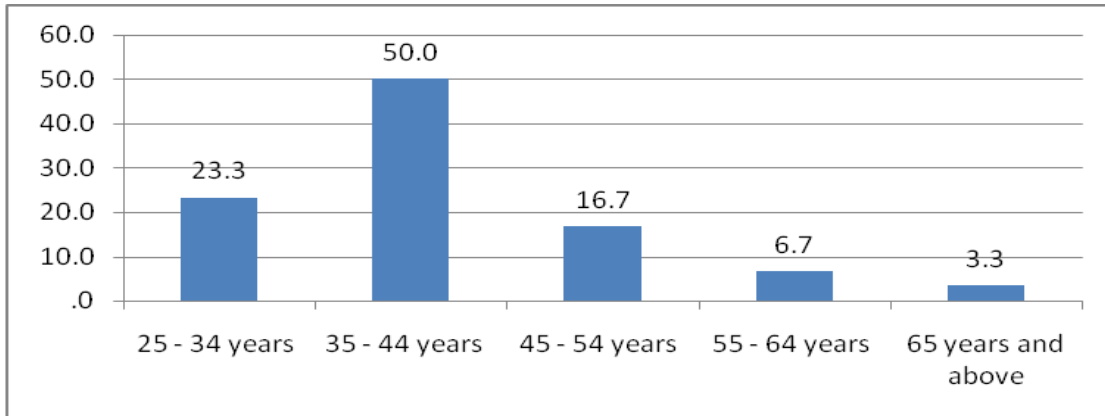
*Figure 4.1: Gender of the Respondents*



#### 4.2.1.2 Age of the Respondents

From the findings, 50% of the respondents were between 35-44 years of age, 23.3% of the respondents were 25-34 years of age, 16.7% of the respondents were 45-54 years of age, and 6.7% of the respondents were 55-64 years of age while only 3.3% of the respondents were 65 years of age and above.

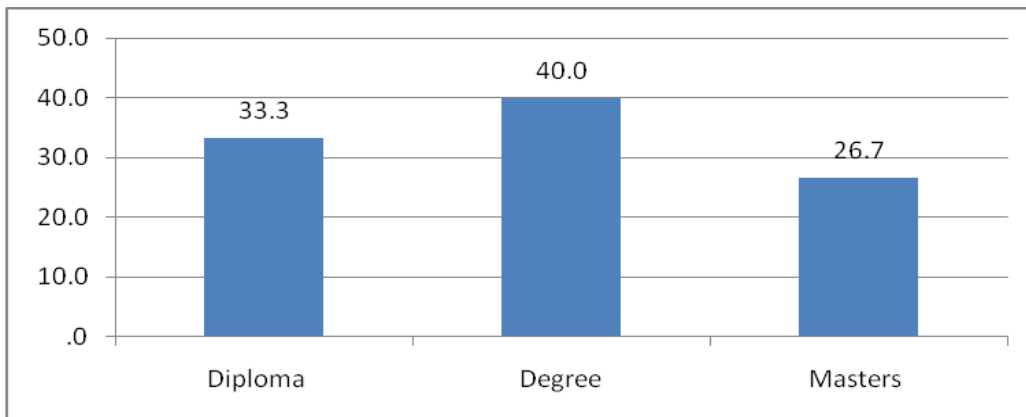
Figure 4.2: Age of the Respondents



#### 4.2.1.3 Highest Education and Qualification Achieved by the Respondents

Forty percent of the respondents were degree holders, 33% of the respondents were diploma holders while only 27 % of the respondents had Masters.

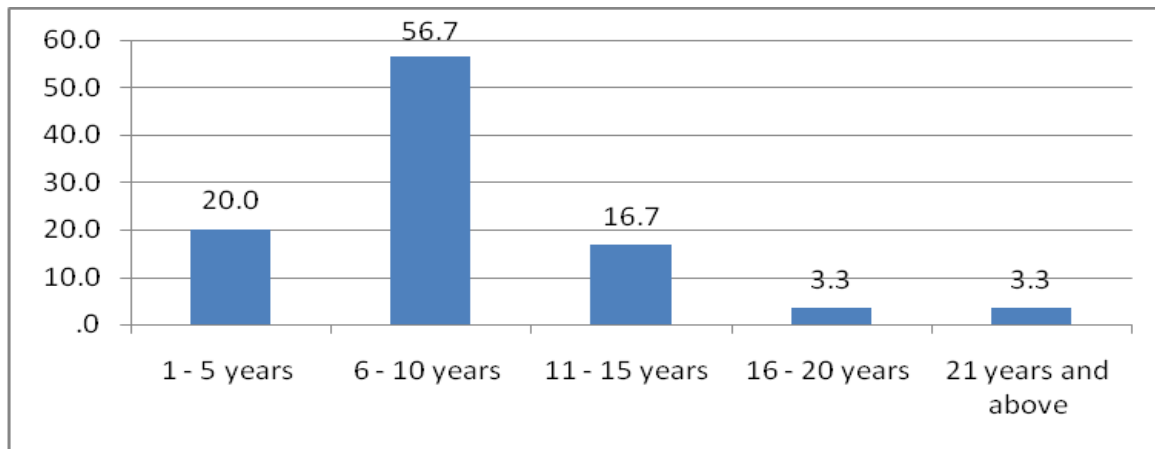
Figure 4.3: Highest Education and Qualification Achieved by the Respondents



#### 4.2.1.4 Experience of the Respondents in the Health Industry

Findings also revealed that 56.7% of the respondents had been in the health industry for 6-10 years, 20% of the respondents had been in the health industry for 1-5 years, 16.7% of the respondents had been in the health industry for 11- 15 years, 3.3% of the respondents had been in the health industry for 16-20 years and above as shown in figure 4.4 below.

Figure 4.4: Experience of the Respondents in the Health Industry



#### 4.2.2 Data Presentations

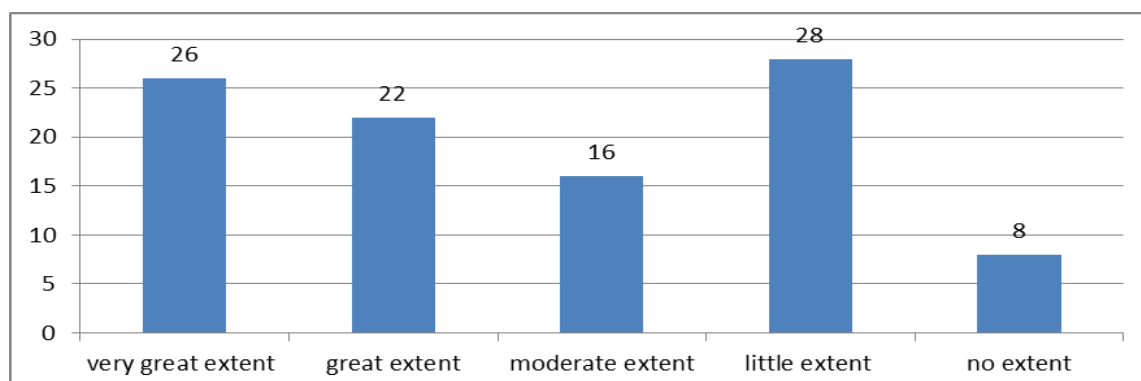
Below is a presentation of the descriptive analysis in form of pie charts, tables and graphs.

##### 4.2.2.1 Risk Identification

##### 4.2.2.1.1 Extent that the Hospital Considers Risk Identification as a Process in Credit Risk Management

The study sought to find out the extent that the hospital considers risk identification as a process in credit risk management. From the findings, 26% of the respondents to a very great extent indicated that the hospital considers risk identification as a process in credit risk management while 28 % of the respondents indicated to a little extent that the hospital considers risk identification as a process in credit risk management.

Figure 4.5: Extent that the Hospital Considers Risk Identification as a Process in Credit Risk Management



#### 4.2.2.1.2 Respondents Rating on the Extent to which the Private Hospital Focuses on the Types of Risks in the Risk Identification Step.

Baldoni (1998) observes that the area of interest rate risk is the area of major concern and on-going risk monitoring and management. However, the tradition has been for the health industry to diverge somewhat from other parts of the financial sector in their treatment of interest rate risk. The study sought to find out the respondents rating on the extent to which the hospital focuses on the types of risks in the risk identification step. According to the findings, respondents indicated that the hospital focuses on interest rate risks to a great extent in the risk identification map as shown by a mean of 1.9 and that the hospital focuses in foreign exchange risks to a moderate extent as shown by a mean of 2.7. The study is therefore a support of previous studies.

Table 4.1: Respondents Rating on the Extent to which the Private Hospital Focuses on the Types of Risks in the Risk Identification Step.

	Very great extent	Great extent	Moderate extent	Little extent	No extent	Mean	Stdev
Interest rate risks	16.7	23.3	40.0	.0	3.3	1.9	0.7
Foreign exchange risks	20.0	16.7	36.7	26.7	0	2.7	1.1

#### 4.2.2.1.3 Extent that the Private Hospital Involves Various Parties in the Risk Identification Process

The study sought to find out the extent that the hospital involves the various parties in the risk identification process. According to the findings, respondents indicated that the hospital involves internal auditors to a very great extent as shown by a mean of 2.0. Further, the hospital involves external auditors to a moderate extent as shown by a mean of 2.6. Further, the hospital involves middle and lower level employees to a very great extent as shown by a mean of 2.7 and that the hospital involves senior employees to a great extent as shown by a mean of 2.8.

*Table 4.2: Extent that the Private Hospital Involves the Various Parties in the Risk Identification Process*

	Very great extent	Great extent	Moderate extent	Little extent	No extent	mean	stdev
Internal auditors	36.7	33.3	20.0	10.0	.0	2.0	1.0
External auditors	13.3	30.0	40.0	16.7	.0	2.6	0.9
Senior employees	16.7	26.7	23.3	30.0	3.3	2.8	1.2
Middle and lower level employees	26.7	20.0	23.3	16.7	13.3	2.7	1.4

#### 4.2.2.1.4 Extent that the Private Hospital Involves the Auditors in the Various Steps in Risk Identification Process

The study sought to find out the extent that the hospital involves the auditors in the various steps in risk identification process. According to the findings, respondents indicated that the hospital involved the auditors by making them begin the inherent risk evaluation process by generating expectations of accounts balances to a very great extent as shown by a mean of 1.8. The hospitals also involved the auditors by letting them determine how changes should interact with historic trends to produce an expected balance in the account to a moderate extent as shown by a mean of 2.5 and that the hospital involved the auditors by letting them identify changes that have occurred in the firm or its environment to a moderate extent as shown by a mean of 2.6.



*Table 4.3: Extent that the Private Hospital Involves the Auditors in the Various Steps in Risk Identification Process*

	Very great extent	Great extent	Moderate extent	Little extent	No extent	mean	stdev
The auditor begins the inherent risk evaluation process by generating expectations of accounts balances	40.0	46.7	6.7	3.3	3.3	1.8	0.9
The auditor identifies changes that have occurred in the firm or its environment	20.0	20.0	43.3	13.3	3.3	2.6	1.1
The auditor determines how those changes should interact with historic trends to produce an expected balance in the account	30.0	20.0	26.7	20.0	3.3	2.5	1.2

#### **4.2.2.1.5 Extent to which Respondents Agreed with Statements about the Importance of Risk Identification in Credit Risk Management**

The study sought to find out the extent to which respondents agreed with statements about the importance of risk identification in credit risk management. According to the findings, respondents strongly agreed that risk identification ensures that the risk management function is established throughout the whole corporation as shown by a mean of 1.9. Respondents indicated neutrality on whether risk identification helps to sort risk according to their importance as shown by a mean of 2.6 and that risk identification assists the management to develop risk management strategy to allocate resources efficiently as shown by a mean of 2.7.

*Table 4.4: Extent to which Respondents Agreed with Statements about the Importance of Risk Identification in Credit Risk Management*

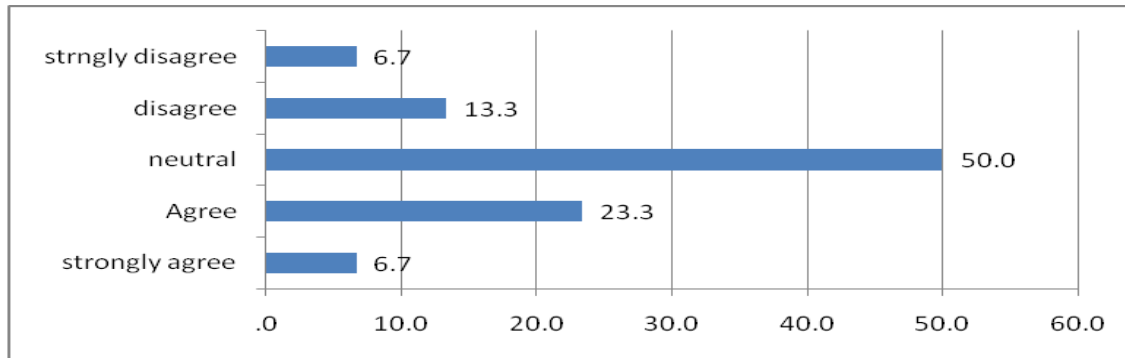
	Strongly agree	Agree	Neutral	Disagree	Stringly disagree	mean	stdev
It ensures that the risk management function is established throughout the whole corporation	46.7	26.7	20.0	.0	6.7	1.9	1.1
Risk identification helps to sort risk according to their importance	23.3	26.7	26.7	16.7	6.7	2.6	1.2
Risk identification assists the management to develop risk management strategy to allocate resources efficiently	10.0	46.7	20.0	13.3	10.0	2.7	1.2

#### **4.2.2.2 Risk Analysis and Assessment**

##### **4.2.2.2.1 Respondents Opinion as to Whether in View of Risk Analysis and Assessment as a Credit Risk Management Practice in the Private Hospital the Application of Modern Approaches to Risk Measurement, Particularly for Credit and Overall Risks is Important for Private Hospitals.**

The study sought to find out the respondents opinion as to whether in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals. From the study, 50% of the respondents indicated neutrality that in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals. 23% of the respondents agree that in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals. 13.3% of the respondents disagree that in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals.

Figure 4.6: Respondents Opinion as to Whether in View of Risk Analysis and Assessment as a Credit Risk Management Practice in the Private Hospital the Application of Modern Approaches to Risk Measurement, Particularly for Credit and Overall Risks is Important for Private Hospitals.



#### 4.2.2.2.2 Extent that Respondents Agreed with Statements about Risk Analysis and Assessment in Credit risk Management

The study sought to find out the extent that respondents agreed with statements about risk analysis and assessment in credit risk management. According to the findings, respondents agree that risk identification helps to sort risk according to their importance as shown by a mean of 2.3. Further, respondents indicated neutrality ensures that risk management function is established throughout the whole corporation and that risk identification assists the management to develop risk management strategy to allocate resources efficiently as shown by a mean of 2.9.

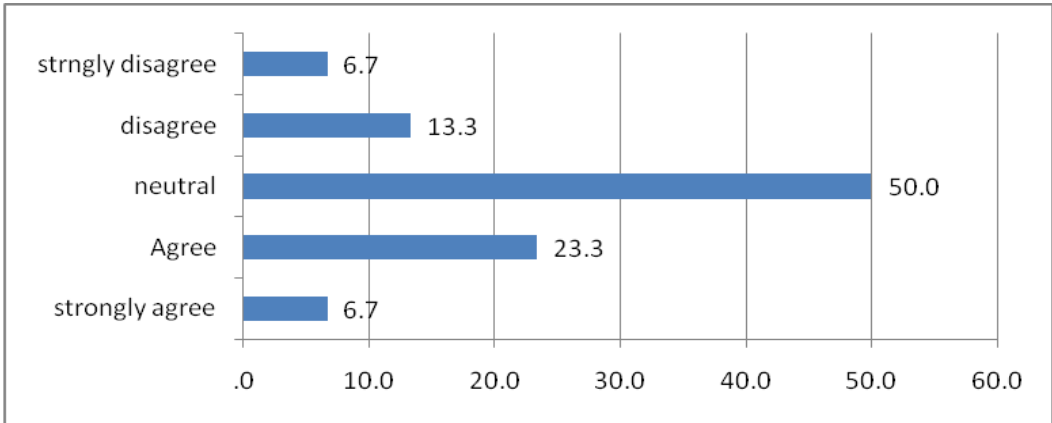
Table 4.5: Extent that Respondent Agreed with Statements about Risk Analysis and Assessment in Credit Risk Management

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	mean	stdev
It ensures that the risk management function is established throughout the whole corporation	23.3	33.3	36.7	3.3	3.3	2.9	1.0
Risk identification helps to sort risk according to their importance	13.3	26.7	23.3	33.3	3.3	2.3	1.1
Risk identification assists the management to develop risk management strategy to allocate resources efficiently	13.3	20.0	43.3	20.0	3.3	2.9	1.0

**4.2.2.2.3 Extent of Agreement as to Whether Effective Credit Risk Management Requires a Reporting and Review Structure to Ensure that Risks are Effectively Identified and Assessed and that Appropriate Controls and Responses are in Place.**

From the study, 50% of the respondents indicated neutrality on whether effective credit risk management requires a reporting and review of structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. 23.3% of the respondents agreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. 13.3% of the respondents disagreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. 6.7% of the respondents strongly agreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place while only 6.7% of the respondents strongly disagreed that effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place.

*Figure 4.7: Extent of Agreement as to Whether Effective Credit Risk Management Requires a Reporting and Review of Structure to Ensure that Risks are Effectively Identified and Assessed and that Appropriate Controls and Responses are in Place.*



### 4.2.2.3 Risk Monitoring

#### 4.2.2.3.1 Extent to which Respondents Agree with Statements about Risk Monitoring in Credit Risk Management

The study sought to find out the extent to which respondents agree with statements about risk monitoring in credit risk management. According to the findings, respondents agreed that the director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly as shown by a mean of 2.1 and that risk monitoring helps the hospital management to discover mistake at early stage as shown by a mean of 2.3. Further respondents were neutral on whether risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring as shown by a mean of 2.8 in the table above. The study therefore collates with the studies.

*Table 4.6: Extent to which Respondents Agree with Statements about Risk Monitoring in Credit Risk Management*

	strongly agree	Agree	neutral	disagree	strongly disagree	Mean	Stdev
Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring	33.3	40.0	13.3	6.7	6.7	2.8	1.0
Risk monitoring helps the hospital management to discover mistake at early stage	26.7	30.0	30.0	13.3	3.3	2.3	1.0
The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly	6.7	30.0	23.3	33.3	6.7	2.1	1.1

#### 4.2.2.3.2 Extent that Risk Monitoring in the Private Hospital Considers the Following Types of Risks to Ensure Profitability

The study sought to find out the extent that risk monitoring in the hospital considers the following types of risks to ensure profitability. According to the findings, respondents agree that the hospital considers credit risks to ensure profitability as shown by a mean of 2.2 and that the hospital considers technology risks to ensure profitability as shown by a mean of 2.3. However,

respondents were neutral that the hospital considers credit risks to ensure profitability as shown by a mean of 3.0

*Table 4.7: Extent that Risk Monitoring in the Private Hospital Considers the Following Types of Risks to Ensure Profitability*

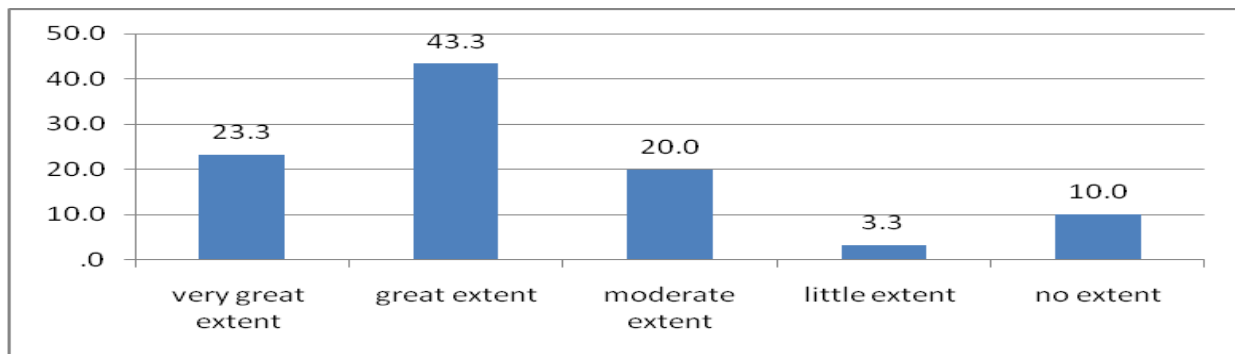
	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Mean	stdev
Technology risks	23.3	46.7	16.7	10.0	3.3	2.3	1.0
Market rate risks	13.3	30.0	33.3	16.7	6.7	3.0	1.1
Credit risks	13.3	26.7	36.7	20.0	3.3	2.2	1.2

#### 4.2.2.4 Credit Risk Management

##### 4.2.2.4.1 Extent that Credit Risk Management Procedures Affect Profitability of the Private Hospital

The study sought to find out the extent that credit risk management procedures affect profitability of the hospital. From the findings, 43.3% of the respondents indicated that credit risk management procedures affect profitability of the hospital to a great extent. 23.3% of the respondents indicated that credit risk management procedures affect profitability of the hospital to a very great extent. 20% of the respondents indicated that credit risk management procedures affect profitability of the hospital to a moderate extent. 10% of the respondents indicated that credit risk management procedures affect profitability of the hospital at no extent and only 3.3% of the respondents indicated that credit risk management procedures affect profitability of the hospital to a little extent.

*Figure 4.8: Extent that Credit Risk Management Procedures Affect Profitability of the Private Hospitals*



#### 4.2.2.4.2 Extent to which Respondents Agreed with Statements about Credit Risk Management Procedures in the Private Hospital

The study sought to find out the extent to which respondents agreed with statements about credit risk management procedures in the hospital. From the findings, 33% of the respondents agree that to facilitate credit risk management, a substantial degree of standardization of process and documentation is required as shown by a mean of 2.2. 30% of the respondents indicated neutrality on whether credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio as shown by a mean of 2.6. 26.7% respondents strongly agree that credit management procedures ensure that all credits must be monitored and reviewed periodically as shown by a mean of 2.7. It is also observed that 36.7% of the respondents agree that through standardized procedures, the hospital can report the quality of its loan portfolio at any time along the lines of the report presented as shown by a mean of 2.9 and that respondents indicated neutrality on whether credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month as shown by a mean of 3.0.

*Table 4.8: Extent to which Respondents Agreed with Statements about Credit Risk Management Procedures in the Private Hospitals*

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	mean	stdev
To facilitate credit risk management, a substantial degree of standardization of process and documentation is required	30.0	33.3	26.7	10.0	.0	2.2	1.0
Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.	16.7	30.0	30.0	20.0	3.3	2.6	1.2
Through standardized procedures, the hospital can report the quality of its loan portfolio at any time, along the lines of the report presented.	6.7	36.7	26.7	23.3	6.7	2.9	1.0
Credit management procedures ensure that all credits must be monitored, and reviewed periodically	26.7	23.3	16.7	23.3	10.0	2.7	1.1
Credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month	16.7	20.0	26.7	16.7	20.0	3.0	1.1

#### 4.2.2.3 Regression Analysis

Linear multiple regression analysis was conducted so as to test the relationship among variables (independent) on the financial performance of private hospitals in Kenya. The statistical package for social sciences (SPSS) was applied to code, enter and compute the measurements of the multiple regressions for the study.

*Table 4.9: Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.897 <sup>a</sup>	.880	.133	.3195

**Source: Research Data 2013**

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (Financial Performance) that is explained by all the four independent variables (Risk identification, Risk analysis and assessment, Risk monitoring and Risk management.)

The four independent variables that were studied, explain only 88% of the financial performance as represented by the  $R^2$ . This therefore means that other factors not studied in this research contribute 12% of the Financial Performance. Therefore, further research should be conducted to investigate the other factors (12%) that affect Financial Performance.

*Table 10: Analysis of Variance*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.534	5	2.878	52.400	.0073
	Residual	186.555	27	2.129		
	Total	198.089	32			

**Source: Research Data 2013**

The significance value is .0002 which is less than 0.0073 thus the model is statistically significant in predicting risk identification, risk analysis and assessment, risk monitoring and risk



management. The F critical at 5% level of significance was 3.23. Since F calculated is greater than the F critical (value = 52.400), this shows that the overall model was significant.

The multiple regression analysis was conducted so as to determine the relationship between Financial Performance and the four variables. This model was used by Parrenas, (2005), when he carried out a research on risk monitoring procedures used by commercial banks to monitor credit risks. Table 4.11 below was generated using SPSS to determine the coefficients of the equation. The equation  $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \epsilon$  therefore becomes:

$$Y = 3.657 + 1.654X_1 + 0.988X_2 + 0.568X_3 + 0.444X_4 + \epsilon$$

Where Y is the dependent variable (Financial Performance),  $X_1$  is the Risk identification variable,  $X_2$  is Risk analysis and assessment variable,  $X_3$  is Risk monitoring variable and  $X_4$  is Risk management.

*Table 11: Coefficient of Determination*

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
	(Constant)	3.657	1.033		0.787	0.255
	Risk Identification	1.654	0.107	0.159	1.091	0.002
	Risk analysis and assessment	0.988	0.139	0.085	0.687	0.005
	Risk monitoring	0.568	0.097	0.145	0.97	0.013
	Credit Risk management	0.444	0.069	0.210	0.349	0.032

**Source: Research Data 2013**

According to the regression equation established, taking all factors into account (Risk Identification, Risk analysis and assessment, Risk monitoring and Risk management) constant at zero, Financial Performance will be 3.657. The data findings analyzed also show that taking all other independent variables at zero, a unit increase in Risk identification will lead to a 1.654 increase in Financial Performance; a unit increase in Risk analysis and assessment will lead to a 0.988 increase in Financial Performance, a unit increase in Risk monitoring will lead to a 0.97 increase in Financial Performance, a unit increase in Risk management will lead to a 0.444. This infers that Risk identification contributes more to the Financial Performance followed by Risk monitoring.

At 5% level of significance and 95% level of confidence, Risk identification had a 0.002 level of significance; Risk analysis and assessment showed a 0.005 level of significant, Risk monitoring showed a 0.013 level of significant, Risk management had a 0.032 level of significant; hence the most significant factor is Risk identification.

#### **4.2.2.4 Summary and Interpretation of findings**

The objective of the study was to establish the relationship between the credit risk and financial performance of private hospitals in Kenya. This was achieved through determining how various aspects of credit risk influence financial performance of private hospitals in Kenya. The researcher therefore conducted a linear multiple regression analysis so as to test the relationship among variables (independent) and the financial performance in the private hospitals in Kenya using the statistical package for social sciences (SPSS)

The key findings were that risk identification contributes more to the financial performance followed by risk monitoring. The hospital involves internal auditors largely to identify risk. Also external auditors are used in the risk identification process. The private hospitals too involve middle and senior employees to identify risks that affect private hospitals.

The study also found that in view of risk analysis and assessment as a credit risk management practice in the private hospitals the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals.

Risk monitoring helps the private hospitals management to discover mistake at early stage and that risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring

Previous studies by Donaldson (1994), Treacy and Carey (1998) Tummala and (Burchett 1999) and Mwisho (2001) indicate that monitoring involves, among others, frequent contact with borrowers, creating an environment that the organization can be seen as a solver of problems and trusted adviser, develop the culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation, monitoring the flow of borrower's business through the private hospital's account, regular review of the borrower's reports as well as an on-site visit; updating borrowers credit files and periodically reviewing the borrowers rating assigned at the time the credit was granted. These study findings therefore support previous literature.

According to the findings, the director's report on risk monitoring enables the shareholders to assess the status of the private hospital's knowledge on credit risk and risk monitoring helps the hospital management to discover mistake at early stage. Further risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring.

Further, private hospital considers credit risks to ensure profitability and that the hospital considers technology risks to ensure profitability.

Risk identification ensures that the risk management function is established throughout the whole corporation. Risk identification helps to sort risk according to their importance. Therefore risk identification assists the management to develop risk management strategy to allocate resources efficiently.

Consequently, credit risk management procedures affect profitability of the hospital. To facilitate credit risk management, a substantial degree of standardization of the process and documentation is required. Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.

Credit risk management is essential to optimizing the performance of private hospitals. Lending has been, and still is, the mainstay of many institutions, and this is more true to emerging economies of developing countries where capital markets are not yet well developed. This is because business firms on one hand are complaining about lack of credit and the excessively high standards set by credit institutions, while private hospitals on the other hand have suffered losses on bad loans. It has been found out that in order to minimize loan losses thus the credit risk, it is essential for private hospitals to have an effective credit risk management system in place.

Effective credit risk management involves establishing an appropriate credit risk environment; operating under a sound credit granting process; maintaining an appropriate credit administration that involves monitoring process as well as adequate controls over credit risk. It requires top management to ensure that there are proper and clear guidelines in managing credit risks, i.e. all guidelines are properly communicated throughout the organization; and that everybody involved in credit risk management understands them.

Credit risk management is a structured approach to managing uncertainties through risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources. The strategies include: transferring to another party, avoiding the risk, reducing the negative effects of the risk and accepting some or all of the consequences of a particular risk.

The process of risk management is a two step process. The first is to identify the source of the risk, which is to identify the leading variables causing the risk. The second is to devise methods to quantify the risk using mathematical models, in order to understand the risk profile of the instrument. Once a general framework of risk identification and management is developed, the techniques can be applied to different situations, products, instruments and institutions. It is crucial for private hospitals to have comprehensive risk management framework as there is a growing realization that sustainable growth critically depends on the development of a comprehensive risk management framework.

The study found that Credit risk is the largest source of risk for private hospitals. Therefore, an effective and sound credit risk management system is important to the stability of private hospitals. Overall, the management of risk requires the development of an appropriate credit

risk culture and environment. A sound credit extension process, maintaining appropriate credit administration, measurement and monitoring process and ensuring adequate credit controls, enhances this.

Finally, the research found out that credit management procedures ensure that all credits must be monitored and reviewed periodically through standardized procedures. The private hospital can report the quality of its loan portfolio at any time along the lines of the report presented and that credit management procedures results in a periodic but timely report card on the quality of the credit portfolio and its change from month to month.

## **CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Summary**

The objective of the study was to establish the relationship between the credit risk and financial performance of private hospitals in Kenya. This study, adopted a causal study design. The objective of causal research is to test hypotheses about cause-and-effect relationships. The population of this study comprised of all licensed private hospitals in Nairobi.

The researcher used both primary (obtained through self-administered questionnaires with closed and open-ended questions) and secondary data. Study findings revealed that the hospital considers risk identification as a process in credit risk management to a very great extent, that in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals, the director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly, that the hospital considers credit risks to ensure profitability and that the hospital considers technology risks to ensure profitability

Private hospitals in Kenya use credit risk appraisal, assessment and evaluation processes when ascertaining the creditworthiness of their customers and capacity is the most significant factor in credit risk assessment, appraisal and evaluation process followed by character, condition, common sense and control in that order. Private hospitals attach a great significance to credit risk, followed by liquidity risk, foreign exchange risk, strategic risk, interest rate risk and operational risk in that order.

Consequently, the study found that the level of credit risk assessment and management was high in the hospitals. All the private hospitals in Kenya follow procedures when assessing and managing credit risk and that credit risk assessment and management affects credit risk in the private hospitals in Kenya. The study found that the organizations have specified credit collection period.

Further, private hospitals inability to enforce covenant of private hospitals was high. Effective management of private hospitals was affected by liquidity and probability and that asymmetric information in loan market affects the effective management of non-performing loans in private hospitals. The study found that inability to enforce covenant causes credit risk among private hospitals in Kenya. In fact 90% of private hospitals indicate that the inability to enforce covenant of private hospitals was high. Liquidity and probability affects the effective management of credit risk in private hospitals. Asymmetric information in loan market affects the effective management of non-performing loans in listed private hospitals.

## **5.2 Conclusions**

Based on the above findings, the study concludes that the hospital considers risk identification as a process in credit risk management to a little extent, that the hospital focuses in interest rate risks to a great extent in the risk identification map and that the hospital focuses in foreign exchange risks to a moderate extent.

The study also concludes that in view of risk analysis and assessment as a credit risk management practice in the hospital the application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals.

In addition, the study concludes that director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly, that risk monitoring helps the hospital management to discover mistake at early stage and that risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring

Credit risk management procedures affect profitability of the hospital to a great extent, that to facilitate credit risk management as a substantial degree of standardization of process and documentation is required, that credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.

The private hospitals should consider risk identification as a process in credit risk management and focus in interest rate risks and foreign exchange risks to a great extent in the risk identification map. Further, the private hospitals should involve internal auditors, external auditors, middle and lower level employees as well as senior employees in the process of risk identification. Auditors should be involved by making them begin the inherent risk evaluation process by generating expectatins of accunts balances, by letting them determine how changes should interact with historic trends to produce an expected balance in the account to a moderate extent and also by letting them identify changes that have occurred in the firm or its environment to a moderate extent.

In addition, the study also recommends the application of modern approaches to risk measurement, particularly for credit and overall risks for hospitals in view of risk analysis and assessment as a credit risk management practice.

Further, director's report on risk monitoring should enable the shareholders to assess the status of the corporation knowledgeably and thoroughly, that risk monitoring helps the hospital management to discover mistake at early stage and risk monitoring be used to make sure that risk management practices are in line with proper risk monitoring

Finally, the research recommends credit risk management procedures can be used to influence profitability of the hospital positively, and also recommends the management of the private hospitals to oversee facilitation of credit risk management as a substantial degree of standardization of process and documentation. Further, since credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio it should be used to ensure that all credits are monitored, and reviewed periodically to allow the hospital to report the quality of its loan portfolio at any time.

### **5.3 Policy Recommendation**

Risk is corporally related to competitiveness and profitability of private hospitals. It is important for private hospitals management to understand how they can edge themselves against the eminent dangers of over exposure to credit risk whose importance cannot be understated as can



be realized from the findings that can impact negatively on their profitability. This can be achieved through strong adherence to the use of credit appraisal model.

Since private hospitals are also bound to provide emergent medical care regardless of the financial abilities of the patient there should be a clear guideline policy to help cushion them against defaulters. The private hospital should ensure that all services are rendered on a cash basis, but credit may be granted based on the financial situation of the patient, and considering their past compliance with the hospital credit and payment policies.

Credit should be extended based on strict guidelines. The settlement of the patient account should be paid in full within 30 days from the date of initial statement of billing unless satisfactory payment arrangements are agreed with the patient accounts department. All payment arrangements should comply with the government guidelines and disclosures, if any. Finally, all payment arrangements should be documented in writing, either as an entry into the patient record, or as a promissory note signed by the patient or guarantor.

With the assistance of the Patient Accounts Department, satisfactory payment arrangements should be tailored to the individual capacity of the patient or guarantor. In cases where the patient does not have insurance or other means to pay the balance at the time of service, a credit application must be filled out, and credit arrangements made with the assistance of the Patient Account.

The results of this study are in line with a considered view in the credit risk management literature and provide an important insight for credit risk management process, appropriate culture and credit policy designed taking into consideration the credit risk evaluation, assessment and appraisal procedures.

#### **5.4 Limitations of the Study**

The study faced some limitations with respect to the time frame within which the data was to be collected from respondents. The respondents were very busy hence requiring constant reminder so as to attend to the questionnaire. Out of the 35 questionnaires sent to the field, 5 were not

received back. The receipt of this could have led to an improvement in the conclusions drawn in the study.

The period of data collection entailed a lot of traveling and frequent communication with the respondents making it an expensive exercise all together. At the same time the inadequacy of finances did not allow me to employ sophisticated data analysis measures that could have improved my findings tremendously.

Some respondents could not volunteer divulge all the vital information that I had requested through my questionnaire for fear of losing their jobs. The management also feared that the employees may expose some of their weaknesses by responding to the questionnaires. Could I have accessed some of this data, my findings could have improved.

### **5.5 Suggestions for Further Studies**

This study has investigated the relationship between the credit risk and financial performance of private hospitals in Kenya. To this end therefore a further study should be carried on public hospitals to see whether the same results also hold by testing the variables in this study.

The impact of moral hazard on credit risk administration in Kenyan private hospitals. Moral hazard in credit mainly arises from information asymmetry. If information asymmetry is not checked, it will lead to obtaining of improper information that subsequently leads to wrong credit decisions.

Moreover, a study should be carried out to investigate the challenges caused by credit risk on financial performance of private hospitals in Kenya.

Finally, a study should also be carried out to investigate the relationship between the credit risk management procedures in influencing profitability of hospitals.

## REFERENCES

- Akkizidis, I. and Khandelwal, S. K. (2008), "*Financial Risk Management for private hospitals and Finance*", Palgrave Macmillan, First Ed.
- Allen, F. and Santomero, (1997) A. "The Theory of Financial Intermediation," *Journal of private hospitals and Finance* , 1997, forthcoming.
- Al-Tamimi, H. (2002), "*Risk Management Practices: An Empirical Analysis of the private hospital*", Finance India, Vol. XVI, No. 3, pp. 1045-1057.
- Al-Tamimi, H. and Al-Mazrooei M., (2007), "Private hospitals' Risk Management: A Comparison Study of UAE National and Foreign Private hospitals", *The Journal of Risk Finance*, Vol. 8 No.4, pp. 394-409.
- Altman, E.(1993) "Valuation, Loss Reserves and the Pricing of Corporate Private hospital Loans," *Journal of Commercial Private hospital Lending*, August 1993, 8-25.
- Angela M. Kithinji (2010), "*Credit risk Management and Profitability of Commercial Banks in Kenya*"
- Archer, S. and Karim, R. A. A. (2007), "*Finance: The Regulatory Challenge*", John Wiley & Son (Asia) Pte Ltd.
- Auronen, L. (2003), "Asymmetric information: theory and applications", paper presented at the Seminar of Strategy and International Business, Helsinki University of Technology, Helsinki, May, .
- Babbel, D. And Santomero, A.(1997) "Financial Risk Management by Insurers: An Analysis of the Process," *Journal of Risk and Insurance*, June 1997 forthcoming.
- Baldoni, R. J. (1998), "*A Best Practices Approach to Risk Management*", *TMA Journal*, Jan/Feb, pp. 30-34.
- Baldoni, R. J. (1998), "*A Best Practices Approach to Risk Management*", *TMA Journal*, Jan/Feb, pp. 30-34.
- Barth, J.R., Caprio, G. Jr, Levine, R. (2004), "Private hospital regulation and supervision: what works best?", *Journal of Financial Intermediation*, Vol. 13 pp.205-48.
- Barton, T. L., Shenkir, W.G. and Walker, P. L. (2002), "*Making Enterprise Risk Management Pay Off*", USA, Prentice Hall PTR, Financial Times.

- Basel (1999), "*Principles for the management of credit risk*", Consultative paper issued by the Basel Committee on private hospital Supervision, Basel,.
- BCBS (2001), *Consultative Document: Principles for the Management and Supervision of Interest Rate Risk*, private hospitals for International Settlements.
- Berger, A. and Udell, G. (1993) "*Securitization, Risk, and the Liquidity Problem in Banking*," Structural Change in private hospital, M. Klausner and L. White, editors, Irwin Publishers, Illinois, 1993.
- Berger, A. and Udell, G. (1995) "Relationship Lending and Lines of Credit in Small Firm Finance," *Journal of Business*, July 1995.
- Bester, H. (1994), "The role of collateral in a model of debt renegotiation", *Journal of Money, and Credit*, Vol. 26 No.1, pp.72-86.
- Bhattacharya, S. and A. Thakor,(1993) "Contemporary Theory," *Journal of Financial Intermediation* , 1993.
- Bofondi, M., Gobbi, G. (2003), *Bad Loans and Entry in Local Credit Markets*, Private Hospitals of Italy Research Department, Rome, .
- Boston Consulting Group (2001), "*From Risk Taker to Risk Manager: Ten Principles for Establishing a Comprehensive Risk Management System for private hospital*".
- Derban, W.K., Binner, J.M., Mullineux, A. (2005), "Loan repayment performance in community development finance institutions in the UK", *Small Business Economics*, Vol. 25 pp.319-32.
- Donaldson, T.H. (1994), *Credit Control in Boom and Recession*, The Macmillan Press, Basingstoke, .
- Drzik, J. (1995), "*CFO Survey: Moving Towards Comprehensive Risk Management*", private hospital Management, Vol. 71, pp.40.
- Fallon, W. (1996), "*Calculating Value-at-Risk*" Working Paper 96-49, Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania, 1996.
- Froot, K., D. Scharfstein, and J. Stein,(1993) "Risk Management: Coordinating Investment and Financing Policies," *Journal of Finance*, December, 1993.
- Furash, E.,(1994) "*Organizing the Risk Management Process In Large private hospitals*," Risk Management Planning Seminar, Federal Financial Institutions Examination Council, Washington,D.C., September29, 1994.

- Fuser, K., Gleiner, W. and Meier, G. (1999), “*Risikomanagement (KonTraG) – Erfahrungen aus der Praxis*”, *Der Betrieb*, Vol. 52, No. 15, pp. 753-758.
- Grais, W. And Kulathunga, A. (2007), “*Capita; Structure and Risk in Financial Services*” in Archer, S. and Karim, R. A. A. 2007, “*Finance: The Regulatory Challenge*”, John Wiley & Son (Asia) Pte Ltd.
- Greuning, H. and Iqbal, Z. (2007), “*Private hospitals and Risk Environment*” in Archer, S. and Karim, R. A. A. 2007, “*Finance: The Regulatory Challenge*”, John Wiley & Son (Asia) Pte Ltd.
- Greuning, H., Bratanovic, S.B. (2003), *Analyzing and Managing Private hospitals Risk: A Framework for Assessing Corporate Governance and Financial Risk*, 2nd ed., The World Bank, Washington, DC, .
- Haron, A. and Hin Hock, J.L. (2007). “*Inherent Risk: Credit and Market Risks*” in Archer, S. and Karim, R. A. A. 2007, “*Finance: The Regulatory Challenge*”, John Wiley & Son (Asia) Pte Ltd.
- Harrington, S.E. and Niehaus, G. R. (1999), “*Risk Management*”, Irwin/McGraw-Hill, New York.
- IAIS – International Association of Insurance Supervisors (2003), paper on Credit Risk Transfer between Insurance and Other Financial Sectors, March, .
- IFSB 2005, “*Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering only Financial Services*”, Financial Services Board.
- Iqbal, Z. and Mirakhor, A. (2007), “*An Introduction to Finance: Theory and Practice*” John Wiley & Son (Asia) Pte Ltd.
- IRM, AIRMIC and ALARM, (2002), *A Risk Management Standard*.
- Jackson-Moore, E. (2007), “*Measuring Operational Risk*” in Archer, Simon and Karim, R. A. A. (2007), “*Finance: The Regulatory Challenge*”, John Wiley & Son (Asia) Pte Ltd.
- Jensen M. and W.Meckling, (1997) “*Theory of the Firm: Managerial Behavior Agency Costs and Ownership Structure,*” *Journal of Financial Economics* 3, p.305-60.
- Jorion, P., (1997) *Value at Risk: The New Benchmark for Control Market Risk*, Irwin Professional Publications, Illinois, 1997.
- Jorion, P., (1997) *Value at Risk: The New Benchmark for Control Market Risk*, Irwin Professional Publications, Illinois, 1997.

- Kealhofer, S. (2003), "Quantifying credit risk I: default prediction", *Financial Analysts Journal*, Vol. 59 No.1, pp.30-44.
- Khan, T., and Ahmed, H. (2001), "*Risk Management: An Analysis of Issues in Financial Industry*" IRTI/IDB Occasional Paper, No. 5.
- Kim, D. and A.Santomero, (1993) "Forecasting Required Loan Loss Reserves," *Journal of Economics and Business*, August, 1993.
- Koch, T.W., MacDonald, S.S. (2000), *Risk Management*, The Dryden Press/Harcourt College Publishers, Hinsdale, IL/Orlando, FL, .
- KPMG (2003), *Basel II – A Closer Look: Managing Economic Capital*.
- Marshall, C. and M.Siegel,(1996) "*Value at Risk: Implementing a Risk Measurement Standard*," Working Paper 96-47, Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania, 1996.
- Marshall, C. and M.Siegel,(1996) "*Value at Risk: Implementing a Risk Measurement Standard*," Working Paper 96-47, Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania, 1996.
- Moody's Investor Service, (1996). *Corporate Bond Defaults and Default Rates, 1970-1995*, Moody's Special Report, 1996.
- Morsman, E.(1993), *Commercial Loan Portfolio Management*, Robert Morris Associates, Philadelphia, 1993.
- Morsman, E.(1993), *Commercial Loan Portfolio Management*, Robert Morris Associates, Philadelphia, 1993.
- Mwirigi P. (2006) An assessment of credit risk mgt techniques adopted by microfinance institutions in Kenya. Unpublished MBA Project. University of Nairobi.
- Nduku B. (2007), A survey of credit risk mgt practices by pharmaceutical manufacturing firms in Kenya. Unpublished MBA Project. University of Nairobi.

- Njiru G.M. (2003), Credit risk management by coffee cooperative's in Embu District. Unpublished MBA Project. University of Nairobi.
- Noraini, Mohd Ariffin (2005), "*Enhancing Transparency and Risk Reporting in private hospitals*", Unpublished doctoral dissertation, University of Surrey, School of Management.
- Parrenas, J. C. (2005), "*Private hospital's Risk Management Practices: A Survey of Four Asian Emerging Markets*".
- Parrenas, J. C. (2005), "*Risk Monitoring Procedures used by Commercial Banks: A Survey of Commercial Banks in Four Asian Emerging Markets*".
- Pausenberger and Nassauer, (2000), "*Governing the Corporate Risk Management Function*", in Frenkel, M. Hommel, U. and Rudolf, M. 2005, "Risk Management: Challenge and Opportunity", Springer.
- PriceWaterhouse (1994), "The credit policy of financial institutions and the factors underlying it", paper presented at the 8th Conference of Financial Institutions, AICC, 5-7 December.
- Robert Koech (2010), "The relationship between credit risk management practices and profitability of micro finance institutions in Kenya (Robert Koech, 2010)".
- Sundarajan, V. 2007, "*Risk Characteristics of Products: Implications for Risk Measurement and Supervision*" in Archer, S. and Karim, R. A. A. 2007, "Finance: The Regulatory Challenge", John Wiley & Son (Asia) Pte Ltd.
- Tchankova, L. (2002), "*Risk Identification – basic stage in risk management*", Environmental Management and Health, Vol 13, No. 3, pp 290-297.
- Tchankova, L. (2002), "*Risk Identification – basic stage in risk management*", Environmental Management and Health, Vol 13, No. 3, pp 290-297.
- Tellis, W. (1997), "Application of a case study methodology", *The Qualitative Report*, September, Vol. 3 No.3, .
- Treacy, W.F., Carey, M.S. (1998), "Credit risk rating at large US Banks", *Federal Reserve Bulletin*, No.November, .

Tummala, V.M.R., Burchett, J.F. (1999), "Applying a risk management process to manage cost risk for a EHV transmission line project", *International Journal of Project Management*, Vol. 17 No.4, pp.223-35.

Uyemura, D.G., Deventer, D.R. (1993), *Risk Management: Theory and Applications of Assets and Liability Management*, Publication, Kamakura, Honolulu, HI, .



**APPENDICES**

**Appendix I: Questionnaire**

**SECTION A: DEMOGRAPHIC INFORMATION**

1. Gender:

Male ( )      Female ( )

2. Age bracket:

25 – 34 years ( )      35 – 44 years ( )      45 – 54 years ( )

55 – 64 years ( )      65 years and above ( )

3. What is your highest qualification achieved?

Diploma ( )      Degree ( )

Masters ( )      Others (please specify.....) ( )

4. What is your current designation within the hospital?.....

5. How many years have you been in the health industry?

1 – 5 years ( )      6 – 10 years ( )      11 – 15 years ( )

16 – 20 years ( )      21 years and above ( )

**SECTION B: CREDIT RISK MANAGEMENT**

**RISK IDENTIFICATION**

1.What does risk identification involve?

.....  
.....  
.....

2.To what extent does your hospital consider risk identification as a process in credit risk management?

- To a very great extent        ( )
- To a great extent                ( )
- To a moderate extent            ( )
- To a little extent                ( )
- To no extent                        ( )

3. In credit risk management, interest rate risks and foreign exchange risks are the main domain of the financial department. In view of this statement, please rate the extent to which this hospital focuses on the types of risks in the risk identification step. Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

<b>Risk identification</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Interest rate risks					
Foreign exchange risks					
Other, please specify					

4. To what extent does the hospital involve the following parties in the risk identification process? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

<b>Parties involved in risk identification</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Internal auditors					
External auditors					
Senior employees					
Middle and lower level employees					

Other, please specify					
-----------------------	--	--	--	--	--

5. To what extent does the hospital involve the auditors in the following steps in risk identification process? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

<b>Involvement of auditors in risk identification</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
The auditor begins the inherent risk evaluation process by generating expectations of accounts balances					
The auditor identifies changes that have occurred in the firm or its environment					
The auditor determines how those changes should interact with historic trends to produce an expected balance in the account					
Other, please specify					

6. To what extent do you agree with the following statement about the importance of risk identification in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

<b>Importance of risk identification in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
It ensures that the risk management function is established throughout the whole corporation					
Risk identification helps to sort risk according to their importance					
Risk identification assists the management to develop risk management strategy to allocate resources efficiently					

Other, please specify					
-----------------------	--	--	--	--	--

**RISK ANALYSIS AND ASSESMENT**

7. The application of modern approaches to risk measurement, particularly for credit and overall risks is important for hospitals. To what extent do you agree with this statement in view of risk analysis and assessment as a credit risk management practice in your hospital?

- Strongly agree      ( )
- Agree                ( )
- Neutral             ( )
- Disagree            ( )
- Strongly disagree   ( )

13. To what extent do you agree with the following statement about risk analysis and assessment in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

<b>Risk analysis and assessment in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Risk analysis and assessment comprises identification of the outcomes					
Risk analysis and assessment comprises estimation the magnitude of the consequences					
Risk analysis and assessment comprises the probability of those outcomes					
Other, please specify					

14. Which are the main approaches used in risk analysis and assessment in credit risk management in your hospital?

.....

.....

15. Effective credit risk management requires a reporting and review structure to ensure that risks are effectively identified and assessed and that appropriate controls and responses are in place. To what extent do you agree with the statement in view of risk monitoring in the credit risk management in your organization to ensure profitability?

Strongly agree      ( )

Agree                      ( )

Neutral                    ( )

Disagree                ( )

Strongly disagree      ( )

**RISK MONITORING**

16. To what extent do you agree with the following statement about risk monitoring in credit risk management? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

<b>Risk monitoring in credit risk management</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Risk monitoring can be used to make sure that risk management practices are in line with proper risk monitoring					
Risk monitoring helps the hospital management to discover mistake at early stage					

The director's report on risk monitoring enables the shareholders to assess the status of the corporation knowledgeably and thoroughly					
Other, please specify					

17. i) How does your hospital monitor credit risk?

.....

.....

.....

ii) Which are the main challenges of risk monitoring in your hospital?

.....

.....

.....

18. To what extent does risk monitoring in your hospital consider the following types of risks to ensure profitability? Use a scale of 1 to 5 where 1 is to a great extent and 5 is to no extent.

<b>Risk monitoring and types of risks</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Technology risks					
Market rate risks					
Credit risks					
Other, please specify					

**CREDIT RISK MANAGEMENT PROCEDURES**

19. To what extent do you think credit risk management procedures have affected the profitability of the hospital?

To a very great extent

To a great extent

To a moderate extent

To a little extent

To no extent

20. To what extent do you agree with the following statements about credit risk management procedures in your hospital? Rate using a scale of 1 to 5 where 1 is strongly agree, 2 is Agree, 3 is Neutral, 4 is Disagree and 5 is Strongly disagree.

Credit risk management procedures	1	2	3	4	5
To facilitate credit risk management, a substantial degree of standardization of process and documentation is required.					
Credit risk management leads to standardized ratings across borrowers and a credit portfolio report that presents meaningful information on the overall quality of the credit portfolio.					
Through standardized procedures, the hospital can report the quality of its loan portfolio at any time, along the lines of the report presented.					
Credit management procedures ensure that all credits must be monitored, and reviewed periodically.					
Credit management procedures results in a periodic but timely report card on the					

<p>quality</p> <p>of the credit portfolio and its change from month to month</p>					
<p>Other, please specify</p>					