STRATEGIC COMMERCIAL RISK MANAGEMENT IN THE CREDIT CARD INDUSTRY: A CASE STUDY OF BARCLAYCARD - BARCLAYS BANK (K) LTD

BY

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A Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Master in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY

SPRING 2012
STUDENT'S DECLARATION

I, the undersigned, declare this my original work and has not been submitted to any other college, institution or university other than United States University in Nairobi for academic credit.

Signed: Elvira Migwa (Id no: 625534) 
Date: 08/05/2012

This project report has been presented for examination with my approval as the appointed supervisor.

Signed: Mr. Fred Newa 
Date: 14/05/2012

Signed: Dean, Chandaria School of Business 
Date: 17/05/2012

Signed: Deputy Vice Chancellor, Academic Affairs 
Date: 10/06/2012
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Deputy Vice Chancellor, Academic Affairs
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ABSTRACT

The general objective of this study was to establish the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited. The study was guided by the following research objectives: To identify the types of risks that the credit card business is exposed to, identify the challenges of risk management faced by the credit card industry and to identify the strategic responses to risk management in the credit card industry.

This research adopted a descriptive research design. A sample size of 113 was selected from a total population of 153 employees and this was sufficient and representative of the population. To ensure easy analysis, the questionnaire was coded according to each variable of the study. In this study, data was analyzed using Statistical Package for Social Sciences (SPSS) program, that is, this descriptive study used measures of central tendency, in particular mean, and measures of dispersion measuring standard deviation, coefficient of variation to determine skewness of data, regression and correlation analysis. Clear presentation of data was done using tables, and figures to give a clear picture of the research findings at a glance.

On the type of bank and credit card risks among the respondents involved in the study. The findings established that there was exposure to deceptive e-mails as the leading bank and credit card. This was followed by inadequate controls and monitoring of credit card transactions, there was high incidence of credit card theft and rampant application of credit card with false information. On the other hand, there were low incidence of credit card duplicates, collusion of credit card fraud, borrowers are unable to pay for their credit purchases and fictitious credit card information was among the very least factor on credit card risk.

In identifying the difficulties experienced in credit card risk management from the respondents involved in the study. The findings established that the bank risk management techniques take place in an unexpected manner as one of the least challenge of risk management. This was followed by credit information leads to lower default and interest rates, management of the bank credit risks is faced with stringent regulations,
borrowers’ debt exposes the bank to moral hazard. On the other hand, fewer respondents claimed that there was lack of risk management techniques, there were no difficulties in confirming the credit history of borrowers’, there was less challenges in gaining knowledge about the consumers’ creditworthiness and very few respondents claimed that the bank does not know how to cope with credit risks information.

In determining the strategic response to credit card risk management, the findings established that the leading strategy for combating risk management involved advising the customers on providing their credit card number. This was followed by the customers and the management regularly communicating with the card issuers, credit cards should never be kept in clients wallets and risk reduction should involve creating clear and trustworthy credit card information. However, among the least strategy was fraudulent use of customer’s card should be reported to the bank immediately, banks should instill a strong corporate culture to minimize credit card risks, credit card loss, the issuers should be informed immediately and bank should have guidelines or policies for credit card risk management.

The main conclusion provides that majority of the respondents claimed that exposure to deceptive e-mails was the leading bank and credit card risks. Risks taking place in an unexpected manner was one of the main challenge of risk management. Credit assessment is usually essential for successful management of risks. The study recommends that policies should be established as a quick response to risk management. Risk management should be planned to avoid them from happening unexpectedly. Credit information should be shared to improve the pool of borrowers, improve banks’ knowledge of applicants’. Hence, the study suggests that future researchers can a comparison of credit card risk management between lenders to add new knowledge in this field of research.
ACKNOWLEDGEMENT

I would like to recognize my supervisor, Mr. Newa who patiently guided me through the process of doing this project. This project would not have been completed without your professional assistance. I would like to express my deepest appreciation and respect to my family for their support, guidance and encouragement throughout my academic life. They have been my source of inspiration and support throughout the process. Lastly, I thank my friends and classmates for their support and companionship through the many difficult times endured during the graduate study process.
DEDICATION

This work is dedicated to my loving family and friends. They are all my inspiration and mentors.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

The current global recession is highlighting the fragility of the global banking and finance system that is subject to greater risk and acts of fraud. There are new challenges in tackling fraud stemming from a fast changing information technology environment, where the internet has become one of the most important channels for the retail sector. Kageyama (2009) reports that in the past three years more than 900 companies surveyed at a worldwide level have lost an average of 8.2 billion dollars a year, a 22% increase with respect to the previously published research. Moreover, the percentage of firms that registered at least one fraud in 2008 has reached 85% that is an 80% increase on the previous year. While these figures hide the motivation for fraud, the rates of growth are significant and in a time of recession this rate is more likely to increase as higher numbers of individuals commit fraud (Abbey, 2009).

In 2005 the world’s two largest credit card circuits, Visa and MasterCard, reported 1.14 billion dollars of fraud losses that represented a 62.9% increase with respect to 1995. In the United Kingdom for example credit card fraud is one of the fastest growing crimes and in 2008 total card fraud losses amounted to more than 609 million pounds, of which 52.5 million was attributed specifically to online banking fraud (Association for Payment Clearing Services, 2009). Arguably, these high amounts can be partially be explained by the high volume of transactions and remarkable growth in credit cards ownership over the past three decades. Visa (2003) calculates a 10% year on year compound growth since cards were first issued. The USA for instance denotes the highest number of issued cards (more than 1.5 billion) and each inhabitant owns on average more than 5 payment instruments. In Europe however, the average card holder owns 1.3 cards and the UK confirms its predominance with 22.3% of all EU cards and 2.4 cards per capita (Assofin-Crif-Eurisko, 2008). Such important fraud losses are driving increasing efforts in both the detection and prevention of fraud and the implementation of robust risk management practices in the credit card industry.

In this case credit card fraud is defined as the misuse of a card without authorization or unapproved purchases or the counterfeiting of cards (Wells, 2007). The motivation and
opportunity behind credit card fraud are many and varied. Traditional types of fraudulent behaviour such as identity theft relate to family members or people that can easily access individual’s mail and personal information and committing fraud either by applying for a card or taking over the existing account. Dumpster diving or trashing, where criminals raid rubbish bins to search for credit card details and other sensitive information is becoming more widespread. Lost or stolen credit cards may also be used fraudulently. Skimming of the magnetic stripe is also still practiced either using highly sophisticated devices embedded in ATM’s or POS or using simple hand held skimmers capable of storing magnetic stripe data (Abbey, 2009).

The credit cards have become increasingly available to riskier customers. Anonymity and bank-less transactions of the credit cards have captured a wide range of customers including the riskier customers. Credit is a method of selling goods or services without the buyer having cash in hand. A credit card is only an automatic way of offering credit to a consumer (Abbey, 2009). Today, every credit card carries an identifying number that speeds shopping transactions. According to Carey (2001) the use of credit cards originated in the United States during the 1920s, when individual firms, such as oil companies and hotel chains, began issuing them to customers.

However, references to credit cards have been made as far back as 1890 in Europe. Early credit cards involved sales directly between the merchant offering the credit and credit card, and that merchant's customer. Around 1938, companies started to accept each other's cards. Nowadays, credit cards allow you to make purchases with countless third parties (Bellis, 2007).

In Europe, the most well-known credit card companies are arguably Barclaycard, Citibank, and American Express, offering different types of products depending on their portfolio. Depending on the product offered, the services associated with the card may be different. Interest rate, card fees, exchange rate fee, late payment fee, credit limit, terms and conditions, are elements that can vary from one bank to another and from one product to another (Anderson, 2007).
In the credit card business, fraud occurs when a lender is fooled by a borrower offering him/her purchases, believing that the borrower credit card account will provide payment for this purchase. Ideally, no payment will be made. If the payment is made, the credit card issuer will reclaim the amount paid (Kageyama, 2009). Thus, fraud risk is the risk that a debt cannot be enforced because the identity of the person incurring the debt cannot be ascertained (Carey, 2001). This is distinct from credit risk, which is the risk that an identified debtor cannot or will not discharge his debt.

Today, with the expansion of e-commerce, it is on the internet that half of all credit card fraud is conducted. Fraudsters have usually connections with the affected business. In the credit card business, it can be an internal party but most likely an external party (Abbey, 2009). As an external party, fraud is committed being a prospective/existing customer or a prospective or existing supplier. Three different profiles can be identified for external fraudsters: the average offender, criminal offender, and organized crime offender (Phua et al., 2005).

Average offenders display random or occasional dishonest behavior when there is opportunity, sudden temptation, or when suffering from financial hardship. In contrast, the more risky external fraudsters are individual criminal offenders and organized group crime offenders (such as professionals or career fraudsters) because they repeatedly disguise their true identities and/or evolve their modus operandi over time to approximate legal forms and to counter detection systems (Phua et al., 2006).

For many companies sometimes dealing with millions of external parties, it is cost-prohibitive to manually check the majority of the external parties' identity and activities. Indeed, to investigate each suspicious transaction, they incur a direct overhead cost for each of them. If the amount of a transaction is smaller than the cost of the overhead, investigating is not worthwhile even if it seems suspicious (Oscherwitz, 2005). In order to avoid these overheads and depending on the type of fraud committed, diverse solutions can be implemented.

To be able to exploit this growth, credit card issuers will need to install appropriate controls to manage and mitigate the inherent risks and to create a secure and trustworthy...
environment for credit cards to flourish. Meanwhile, the risk management of consumer lending industry has been becoming more and more critical to protect the interest of both lenders and consumers (Wells, 2007). The credit risk management strategies, especially for credit card, have been becoming more and more sophisticated with the availability of statistical models, credit scores, and analytical tools. Automatic credit decision-making strategies in acquisition underwriting and complicated portfolio risk management strategies have been widely utilized by consumer lending institutions for most of their products such as car loans, home equity loans, and credit cards (Anderson, 2007). On the other hand, regulations and laws in this industry have correspondingly enhanced to prevent systemic risk proactively. For most, credit cards and other secured and unsecured lending have provided people with greater control and flexibility when managing their finances while collectively benefiting the economy (Abbey, 2009).

The sound fundamentals of the consumer credit market is association with a fair, safe, and competitive market environment that supports the consumers, communities, lenders and the economy of the country (Carey, 2001). Such environment is possible should the regulations and laws protect the rights of consumers and lenders, the market invest on state-of-the-art science and technology, the governing agent stand up for fair and open market practice, and consumers and lenders have the mutual trust (Anderson, 2007). A number of regulations and laws have been implemented just to ensure a fair and safe market environment for the consumer credit market (Kageyama, 2009).

On the other hand, lenders have dramatically improved their ability to compete in a fair lending environment. Among all the improvements, managing risks with sophisticated tools is one of the most important improvements that enable the lenders to open the market to all the consumers at a controllable risk level (Carey, 2001). Managing risks in the consumer credit market is one of the critical dimensions to ensure the industry grows within a healthy environment. Effective regulations and laws will provide a safeguard for the industry from credit card risk, whereas sophisticated credit risk policy, strategies, and tools will provide institutions and consumers with risk protections (Anderson, 2007).

Among all the consumer credit management practices, credit risk management has been one of the major focuses. Crouhy, Galai and Mark (2006) suggest that credit risk
assessment can be done in two stages in most cases: loan application and underwriting, and during the course of the loan payment. In loan application and underwriting, the lender can only assess the credit risk by studying the borrower’s credit history, while in the course of the loan payment, the lender can not only continue to examine the credit history, but also monitor the current payment behavior to better assess the credit risk. Commonly, lenders refer to the first stage as underwriting risk management, and the second stage as the portfolio risk management. The portfolio risk management is particularly critical for revolving products, such as credit card, whose loan outstanding is purely driven by the behavior and financial situation of the consumers.

Bearing in mind that the motivation and opportunity of credit card risk is varied, it is on the basis of this that the study aims to evaluate the best strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited. Locally, the need for stringent risk management strategies has necessitated the directive by the Central Bank of Kenya that all financial institutions controlled by them, should establish risk management units for the function of risk mitigation (Njuguna, 2007; CBK, 2006; CBK, 2005). This directive was also influenced more by rising cases of fraud within lending institutions, increasing bad debts and in some extreme cases the collapse of these institutions.

Consequently, banks in Kenya have established strategies that are intended to support their risk control. Among these strategies include the establishment of units within the commercial banks to specifically handle the risk function, training of staff in risk management and re-structuring of operational procedures to mitigate risk. Operational procedures include conducting stringent customer due diligence (The Banker, 2007; Brown, Bridge and Harvey, 1998) and screening of clients’ documents, that is, Know Your Customer, before transacting and also introducing real-time systems like PRIME 3 in the case of Barclaycard.

Barclays is a major global financial services provider engaged in retail and commercial banking, Visa credit cards, investment banking, wealth management and investment management services, with an extensive international presence in Europe, the Americas, Africa and Asia (Barclays PLC, 2010). It was formed in 1917 after going through a
For Barclays, sustainability has been identifying and managing their economic, social and environmental issues across the Group, and contributing to the wellbeing of society. Their sustainability strategy focuses on the value to the business and their stakeholders. These strategies include focusing on customers and clients by ensuring their products and services meet customer needs through developing innovative solutions to enhance performance, relationships and satisfaction. They also ensure there is diversity amongst their employees by attracting employees from the widest possible talent pools and developing and retaining colleagues on the basis of performance and ability. They also incorporate the environment in their focus strategies, by managing direct and indirect environmental impacts. Lastly, they also believe in incorporating responsible global citizenship, which is, managing Barclays' indirect economic, ethical, social and environmental impacts, encouraging their supply chain to be more sustainable, and investing in local communities where they do business.

Barclaycard is the Visa credit card arm of Barclays Bank PLC., which offers exclusively Visa credit card services to their clientele. It is one of the largest credit card lending companies in Europe and across four continents. Barclaycard credit cards can be used in over 29 million outlets and to withdraw cash from more than 600,000 ATMs and banks worldwide. Barclaycard offers a range of powerful business solutions to help with all card payment and processing needs. It actually offers a wide range of credit cards, providing convenient, revolving credit for customers worldwide, with flexible repayment options (Barclays Bank PLC, 2010).

Barclaycard was launched in 1966 as the first all-purpose credit card in Europe. It is actually one of the founder members of the international Visa system. Barclaycard has also had partnerships with a number of major institutions, hence showing its stability in the Kenyan market and also across the globe. Some of these partnerships include Littlewoods; a leading mail order company, clubs like Manchester United, Nakumatt
Supermarket, Kenya Power and Lighting company, an electricity supplier in Kenya, Nairobi Water and Sewerage Company, Clydesdale Financial Services, Juniper Financial Corporation; a US credit card firm. In 2005 it acquired the majority stake in ABSA Group Ltd in South Africa, through which it now has 1.9m existing cardholders. Barclaycard and Sky joined forces to launch SkyCard a Sky branded credit card that could be used in a Sky box to make purchases through the television, amongst others (Barclaycard BBK, 2009).

It is this arm of Barclays Bank (K) Ltd that this study is going to delve into to find ways of managing risks that they face on day to day operations of their businesses. Currently in Kenya, only a handful of banking and financial institutions offer credit cards to their clientele and this may be attributed to the high risk levels associated with short term forms of lending.

1.2 Statement of the Problem

Research on risks management has always been focused on a wide range of economic activities such as insurance fraud (Dionne, 1984; Clarke, 1989; Artis, Ayuso and Gillen, 1999; Caudill, Ayuso and Gullen, 2005; Boyer, 2007), medical fraud (Pontell, Jesilow and Geis, 1982; Feldman, 2001; Rai, 2001) and accounting fraud (Beasley, 1996; Gerety and Lehn, 1997; Sadka, 2006; Crutchley, Jensen and Marshall, 2007). Though fraudulent behavior has been analyzed in financial markets particularly for securities, bankruptcy and money laundering, very few studies exist on the management of credit card risk of fraud.

Although a study conducted by Mbagi (1998) emphasized the extent to which credit cards are used in Kenya. The study revealed that the exposure to credit cards and monthly income remained as the main determinants of credit card users. This indicates that very few studies have focused on the strategic response to commercial risk management in the credit card industry. Credit card exposure to fraud means obtaining services, goods or money by unethical means, which is a growing problem all over the world nowadays. Fraud deals involving criminal purposes are difficult to identify. Credit cards are one of the most famous targets of fraud risk.
Furthermore, the face of fraud has changed dramatically during the last few decades as technologies have changed and developed. A critical task to help financial institutions is to take steps to prevent fraud and to deal with it efficiently and effectively, when it does happen (Anderson, 2007). Thus, credit card risk management is more important in the financial sector than in other business areas because the financial industry is facing a large number of risks in a volatile environment (Carey, 2001). Hence, the aim of this study was to expand this strand of research by providing new evidence on the main factors affecting credit card risk of fraud within the financial industry and come up with critical success factors for effective risk management.

1.3 General Objectives
The general objective of this study was to establish the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited.

1.4 Specific Objectives
The study was guided by the following research objectives:

1.4.1 To identify the types of risks that the credit card business is exposed to.
1.4.2 To identify the challenges of risk management faced by the credit card industry.
1.4.3 To identify the strategic responses to risk management in the credit card industry.

1.5 Importance of the Study
A major challenge in the credit card industry has been the effective management and mitigation of the risks that face them on a day to day basis as they go on with their businesses. Barclays Bank (K) Ltd is faced with this uphill task of formulating and implementing a good and effective risk management strategy that can help them avoid liabilities and reduce impairments on their financial books. This study can be of great importance to a number of stakeholders, which include: Barclays Bank of Kenya, other financial institutions, academicians and researchers.

1.5.1 Barclays Bank of Kenya Ltd
This study can help in making recommendations to Barclaycard on useful ways of strengthening their existing risk management framework so as to reduce liabilities and also improve on their market targeting and seal loopholes that impair their financial
books. It can also reveal the strengths and weaknesses of policies and systems within Barclaycard, thence incorporating the SWOT system of analysis which will be of importance for them to put into use, especially in untapped market segments. It can also reveal the impact of risk management systems and processes on staff performance and attitudes, and this can be of help to Barclaycard on how they can improve on the same.

1.5.2 Other Financial Institutions
The study can also contribute to the body of knowledge that can be useful to other credit card issuers, banks and also other financial institutions that offer lending services. This can be especially in the development of policy, practice and theory of strategic commercial risk management. From this study they can be able to make quality decisions that can have a positive impact on their operations and profitability segments.

1.5.3 Researchers and Academicians.
The study can also contribute to the body of knowledge on effective credit card risk management hence will be of interest to both researchers and academicians who seek to explore or investigate the strategies for enhancing risk management in business operations, more so those of financial institutions.

1.6 Scope of the Study
The scope of the study was limited to Barclaycard in Barclays Bank (K) Ltd, Nairobi, which possesses the highest percentage of the credit card market. The study was based on all types of credit cards provided by Barclay Card. The population sample comprised of Barclaycard employees, that is, the credit assessment team, sales team, and application vetting team, commercial risk team, compliance, management and support staff. This study took a period of one (1) semester beginning January 2012 to April 2012.

1.7 Definition of Terms
1.7.1 Application Fraud
Application fraud is when someone applies for a credit card with false information. To detect application fraud, the solution is to implement a fraud system that allows identifying suspicious applications. To detect application fraud, two different situations have to be distinguished: when applications come from a same individual with the same
details, the so-called duplicates, and when applications come from different individuals with similar details, the so-called identity fraudsters (Jensen and Marshall, 2007).

1.7.2 Bankruptcy Fraud
Bankruptcy fraud means using a credit card while being insolvent. In other words, purchasers use credit cards knowing that they are not able to pay for their purchases. The bank will send them an order to pay (Rai, 2001).

1.7.3 Counterfeit Fraud
Counterfeit fraud occurs when the credit card is used remotely; only the credit card details are needed. At one point, one will copy your card number and codes and use it via certain web-sites, where no signature or physical cards are required (Sadka, 2006).

1.7.4 Credit
Credit is a method of selling goods or services without the buyer having cash in hand. A credit card is only an automatic way of offering credit to a consumer (Abbey, 2009).

1.7.5 Credit Card Risk
Credit card risk occurs when the debtor cannot repay part or whole of the debt to the creditor as agreed in the mutual contract. More formally, credit risk arises whenever a lender is exposed to loss from a borrower, counterparty, or an obligor who fails to honor their debt obligation as they have agreed or contracted. This loss may derive from deterioration in the counterparty’s credit quality, which consequently leads to a loss to the value of the debt (Colquitt, 2007) or in the worst case, the borrower defaults when is unwilling or unable to fulfill the obligations (Crouhy et al., 2006).

1.7.6 Credit Risk Management
According to Crouhy, Galai and Mark (2006), the bank credit risk management can be divided into retail and commercial credit risk management. Credit risk management based upon portfolio management is highlighted for both retail and commercial. This means that the customers are categorized into different portfolios, each of which is homogenous in several characteristics.
1.7.7 Critical Success Factors
Rochart (1979) defines Critical Success Factors (CSF) as the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organization. They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the periods will be less than desired. Also, Boynton and Zmud (1984) define Critical Success Factor as one of the few things that ensures success for an organization. Critical success factors are maintaining a high performance for an organization’s currently operating activities and its future.

1.7.8 Fraud
In the credit card business, fraud occurs when a lender is fooled by a borrower offering him/her purchases, believing that the borrower credit card account will provide payment for this purchase. Ideally, no payment will be made. If the payment is made, the credit card issuer will reclaim the amount paid (Kageyama, 2009). Thus, fraud risk is the risk that a debt cannot be enforced because the identity of the person incurring the debt cannot be ascertained (Carey, 2001). This is distinct from credit risk, which is the risk that an identified debtor cannot or will not discharge his debt.

1.7.9 Fraudulent Behavior
This is a type of theft related to family members or people that can easily access individual’s mail and personal information and committing fraud either by applying for a card or taking over the existing account. Dumpster diving or trash, where criminals raid rubbish bins to search for credit card details and other sensitive information is becoming more widespread. Lost or stolen credit cards may also be used fraudulently. Skimming of the magnetic stripe is also still practiced either using highly sophisticated devices embedded in ATM’s or POS or using simple hand held skimmers capable of storing magnetic stripe data (Anderson, 2007).
1.7.10 Internet Enabled Fraud

Internet enabled fraud occur in the form of phishing attacks continue to harvest credit card users’ details and compromised computer with key loggers provide organized criminals with the card details. A common practice is also that of phishing where fraudulent emails hijacking brand name of banks, credit cards companies, (etc.) are sent aimed at acquiring trickily financial data, account usernames and passwords (Colquitt, 2007).

1.7.11 Risks

Banking risks can be grouped into categories. Santomero (1997) divides the risks into six generic kinds: systematic or market risk (interest rate risk), credit risk, counterparty risk, liquidity risk, operational risk, and legal risks. This categorization is based on types of services offered by banks. But the risks seem to be insufficient and some overlapping can be found. Counterparty risk and credit risk are quite alike or the list lacks country risks, for example.

1.7.12 Risk Management

Risk management in a bank refers to a set of policies to manage and monitor transactions and activities which can adversely impact banking operations, and enact proactive measures to identify, control and minimize these risks (Ardrey, Perryer, Keane and Stockport, 2009). The policies in practice usually establish standard processes, models, practices, management tools, evaluation criteria, review time intervals which are to be implemented in the bank’s entire system. The policies are mostly reviewed on an annual basis except for sudden happenings that urge a quick response.

1.7.13 Strategic Response

Strategic response is a set of commitments, decisions and actions required for a firm to achieve strategic competitiveness and earn above average returns (Wheelen anf Hunger, 2004).
1.8 Chapter Summary

Chapter one presents the background to commercial risk management in the credit card industry as the purpose of the study. The chapter also describes the statement of the problem in the context of commercial risk management in the credit card industry and outlines the specific objectives of this research, the significance of the study, importance and the scope of the study as well as the working definitions of specific terms used in the project.

The chapter two covers the literature review based on the following specific objectives: the first section dealt with literature review on the types of banking risks and the position of credit card risks among them. The second section explored literature on the difficulties in credit risk management that arises from the credit card market. The third section of the literature identified successful critical success factors in credit card risk management.

The chapter three highlights the research methodology and procedures the researcher adopted in conducting the study in order to answer the research questions raised in the first chapter. The chapter was organized in the following structure: the research design, population and sample, data collection methods, sampling design and sample size, research procedures, data analysis methods and lastly the chapter summary. Chapter four presents the results and findings and chapter five provides a discussion, conclusion and recommendations on the findings of the study.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This purpose of this chapter was to examine literature by other academicians on the strategic response to commercial risk management in the credit card industry. This chapter is structured according to the specific objectives: To determine the types of banking risks and the position of credit card risks among them, to determine the difficulties in credit risk management that arises from the credit card market and to identify successful critical success factors in credit card risk management.

2.2 Types of Credit Card Risks

2.2.1 Overview of Credit Card Risks
Risk is understood as unpredicted incidents that occur in the future that either brings benefits or threats to their recipients (Santomero, 1997). A balance between the gains and losses is essential and risk management will take care of that balance. On the other hand, the banking business, compared to other types of business, is substantially exposed to risks, especially in this ever-changing competitive environment (Crouhy, Galai and Mark, 2006). Banks no longer simply receive deposits and make loans. Instead, they are operating in a rapidly innovative industry with a lot of profit pressure that urges them to create more and more value-added services to offer and satisfy the customers better (Crouhy et al., 2006). Risks are much more complex now since one single activity can involve several risks. Risks are inside risks. Risks overlap risks. Risks contain risks.

2.2.2 Banking Risks
Scholars and analysts in recent decades have been trying to group banking risks into categories. The Basel Accords issued by the Basel Committee on Bank Supervision mention three broadest risk types in the first pillar: credit, market and operational risks. Then the second pillar deals with all other risks. Santomero (1997) divides the risks into six generic kinds: systematic or market risk (interest rate risk), credit risk, counterparty risk, liquidity risk, operational risk, and legal risks. This categorization is based on types of services offered by banks. But the risks seem to be insufficient and some overlapping
can be found. Counterparty risk and credit risk are quite alike or the list lacks country risks, for example.

Another classification that is quite comprehensive is introduced by Crouhy, Galai and Mark (2006):

![Figure 2.1: Typology of Risks](image)

Source: Crouhy, Galai and Mark (2006, pg. 26).

Further, Greuning and Bratanovic (2009) divide risks faced by the banking business into three groups: financial, operational and environmental risks. Financial risks, as their name indicate, are risks related to a bank’s financial position (the first three risks under financial risks in Table 2.2) or any form of financing (the other five risks in the financial risks column). Greuning and Bratanovic separate market risk from interest rate and currency risk but it would be more relevant if market risk covers the latter two because interest rate and currency exchange are important elements of the financial market.
Operational risks are risks associated with inadequate systems, management failure, faulty controls, fraud and human errors (Crouhy et al., 2006). Operational risks are attracting growing attention in the financial sector. For example, Societe Bank in Greece had a huge loss of USD7.2 billion by unauthorized trading activity conducted by the bank’s employee in the futures market in 2008. This is an example of dangerous frauds that the bank failed to control. The incident not only brought a loss to Societe Bank but also downgraded the bank’s long-term debt ratings.

Table 2.1: Different Types of Risks

<table>
<thead>
<tr>
<th>Financial Risks</th>
<th>Operational Risks</th>
<th>Environmental Risks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance sheet structure</td>
<td>Internal fraud</td>
<td>Country and political risks</td>
</tr>
<tr>
<td>Earnings and income statement structure</td>
<td>External fraud</td>
<td>Macroeconomic policy</td>
</tr>
<tr>
<td>Capital adequacy</td>
<td>Employment practices and work safety</td>
<td>Financial infrastructure</td>
</tr>
<tr>
<td>Credit</td>
<td>Clients, products and business services</td>
<td>Legal infrastructure</td>
</tr>
<tr>
<td>Liquidity</td>
<td>Damage to physical assets</td>
<td>Banking crisis and contagion</td>
</tr>
<tr>
<td>Market</td>
<td>Business disruption and system failures (technology risks)</td>
<td></td>
</tr>
<tr>
<td>Interest rate</td>
<td>Execution, delivery and process management</td>
<td></td>
</tr>
<tr>
<td>Currency</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Greuning and Bratanovic (2009).

While financial and operation risks can occur due to the organization’s subjective reasons, environmental risks mainly deal with objective factors in the bank’s business environment that somehow are out of its control. For instance, a bank enters an agreement to endorse a Letter of Credit in the transaction between A (seller) and B (buyer). After 30 days, the bank already pays A the money and waits for B to repay the amount. Suddenly the buyer’s government prohibits overseas transfer of foreign currency and B couldn’t make the payment. The bank loses. This is totally unpredictable and uncontrollable.

2.2.3 Types of Credit Card Risks

2.2.3.1 Risks of Bankruptcy Fraud

The motivation and opportunity behind credit card fraud are many and varied. Bankruptcy fraud is one of the most difficult types of fraud to predict. However, some
methods or techniques may help in its prevention (Crouhy, Galai and Mark, 2006). Bankruptcy fraud means using a credit card while being insolvent. In other words, purchasers use credit cards knowing that they are not able to pay for their purchases. The bank will send them an order to pay (Anderson, 2007).

However, the customers will be recognized as being in a state of personal bankruptcy and not able to recover their debts. The bank will have to cover the losses itself. Usually, this type of fraud loss is not included in the calculation of the fraud loss provision as it is considered a charge-off loss (Carey, 2001). The only way to prevent this bankruptcy fraud is by doing a pre-check with credit bureaus in order to be informed about the banking history of the customers (Anderson, 2007).

In Germany, for example, some of the most used credit bureaus are SCHUFA and CEG. SCHUFA, as the leading credit bureau in Germany, offers solutions to its clients over the whole risk management process; 62 million records are stored in their database. Credit bureaus usually report on diverse sectors, such as private banks, savings bank, cooperative banks, special credit institutes etc., and credit card companies.

Usually, the process is as follows: the bank passes an enquiry to the credit bureau. The enquiry includes identification information required by the credit bureau. In a counter party transaction, the credit bureau sends a credit report for this single individual including personal particulars, details of non-compliance with contractual obligations, information from public directories and additional positive information such as repayment of loans according to contract at or before maturity (Crouhy, Galai and Mark, 2006). Some credit bureaus are also able to trace the address of a specific individual, who has moved to an ‘unknown’ address.

Sometimes, the perpetrator will steal the card of someone else and use it as many times as possible before the card is blocked. The sooner the owner will react and contact the bank, the faster the bank will take measures to stop the thief. Similarly, counterfeit fraud occurs when the credit card is used remotely; only the credit card details are needed (Anderson, 2007). At one point, one will copy your card number and codes and use it via certain web-sites, where no signature or physical cards are required (Santomero, 1997).
Recently, Pago, one of the leading international acquiring and payment service providers, reveals in its Pago Report (2005) that credit card fraud is a growing threat to businesses selling goods or services through the internet. On-line merchants are at risk because they have to offer their clients payment by credit card. In cases where fraudsters use stolen or manipulated credit card data the merchant loses money because of so-called “charge-backs”. The charge-backs are generated if credit card holders object to items on their monthly credit card statements because they were not responsible for the purchase transactions.

A fraudulent transaction is difficult to detect and to define. Nevertheless, ATM transactions of large amounts are suspicious and demand contact with the customer (Crouhy et al., 2006). Purchases of goods for a larger amount than normal will also be notified to the customer as well as abnormal overseas spending patterns. Fraudulent transactions are usually impossible to prevent as they occur in a really short period of time (Santomero, 1997). However, once a card is identified, the card is blocked.

2.2.3.2 Risk of Application Fraud

Another type of risk is application fraud. Application fraud is when someone applies for a credit card with false information. To detect application fraud, the solution is to implement a fraud system that allows identifying suspicious applications. To detect application fraud, two different situations have to be distinguished: when applications come from a same individual with the same details, the so-called duplicates, and when applications come from different individuals with similar details, the so-called identity fraudsters (Affari and Finanza, 2009).

In most banks, to be eligible for a credit card, applicants need to complete an application form. This application form is mandatory except for social fields. The information required includes identification information, location information, contact information, confidential information and additional information. Recurrent information available would be for identification purposes, such as the full name and the date of birth. The applicant would inform the bank about his/her location details: the address, the postal code, the city and the country (Carey, 2001). The bank would also ask for contact details, such as e-mail address, land-line and mobile phone numbers (Arora and Agarwal, 2009).
Confidential information will be the password. In addition, the gender will be given. All those characteristics may be used while searching for duplicates.

2.2.3.3 Risk of Fraudulent Behaviour

Traditional types of fraudulent behavior such as identity theft relate to family members or people that can easily access individual’s mail and personal information and committing fraud either by applying for a card or taking over the existing account. Dumpster diving or trashing, where criminals raid rubbish bins to search for credit card details and other sensitive information is becoming more widespread. Lost or stolen credit cards may also be used fraudulently (Santomero, 1997). Skimming of the magnetic stripe is also still practiced either using highly sophisticated devices embedded in ATM’s or POS or using simple hand held skimmers capable of storing magnetic stripe data (Peretti, 2008).

2.2.3.4 Risk of Internet Fraud

Internet enabled fraud is also growing; phishing attacks continue to harvest credit card users’ details and compromised computer with key loggers provide organized criminals with the card details. As the vast majority of all credit card transactions are now authorized and cleared on-line, hacking into the e-payment chain to intercept data can harvest many millions of card details (Crouhy et al., 2006). The e-fraud market has grown. Criminals are now provided with various internet resources to counterfeit credit cards, examples are tipping, custom embossing, decoding machines as well as software such as Creditmaster. A common practice is also that of phishing where fraudulent emails hijacking brand name of banks, credit cards companies, (etc.) are sent aimed at acquiring trickily financial data, account usernames and passwords (Anderson, 2007). Organized crime is normally composed by professional criminals that are setting “carding forums” where it is possible to buy wide-scale global stolen personal and financial information. This practice that leads to the unauthorized use of sensitive information to purchase goods and services often involves thousands and even millions of victims. Indeed credit card fraud is subject to technological enhancement and it is in a continuous evolution (Peretti, 2008). Hence, the purpose of this section is to analyze the demographic, socio-economics and banking-specific determinants that influence the risk of a credit card fraud at Barclaycard.
2.3 Challenges in Credit Card Risk Management

2.3.1 Overview of Credit Risk Management

Understanding risk alone is not sufficient to gain full insight of credit risk management because risk management concepts are missing. This section will fill in the gap by identifying risk management in general and the risks involved in banking. The claim that “risk is always bad” is a false assumption and can mislead the way people deal with risks. Eliminating each and every risk definitely is not the way because risk is an unavoidable element of life. Moreover there is a special relationship between risk and reward. If you want a higher rate of return, be willing to take risks and be tolerant of risks is a must (Book Rags, 2010).

The point is people know how to cope with, or in other words how to control risks properly, responsibly, and in a business context, profitably, beneficially and sustainably. That is the question risk management must answer. Ordinary people also manage risks in different ways. Nevertheless, risk management in organizations is more concerned. Like risk, risk management has been attempted to be defined in various ways. But there is one definition from the International Organization for Standardization (ISO) that is typical and covers most of general issues: “Risk management is a central part of any organization’s strategic management. It is the process whereby organizations methodically address the risks attaching to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities” (IRM, 2002, pp. 4).

2.3.2 Understanding the Challenges of Credit Risk Management

In order to understand credit risk management, knowledge of credit process should first be acquired. Credit is defined by the Economist Dictionary of Economics as “the use or possession of goods or services without immediate payment” and it “enables a producer to bridge the gap between the production and sale of goods” and “virtually all exchange in manufacturing, industry and services is conducted on credit” (Colquitt 2007, pp. 2).
Consequently, credit generates debt that a party owes the other. The former is called a debtor or borrower. The latter is a creditor or lender. Certainly the debtor will have to pay an extra amount of money for delaying the payment. In that circle, both debtor and creditor expect a return which is worth their paying more and waiting, respectively.

So now it is clear why credit exists and how important it is to the economy. Firms or individuals that run short of capital need credit to continue or expand their businesses/investments. The ones that have excess money, on the other hand, never want to keep it in the safes. As a result, all are growing and making more money.

Demand and supply together exist but do they meet each other? Here borne financial intermediaries who act as the bridge between credit suppliers and clients. Now in this innovative phase of the global financial-services industry, numerous types of financial institutions have joined the credit supplier group: insurance companies, mutual funds, investment finance companies, etc. (Colquitt 2007, pp.2) Nevertheless, banks are still the dominant source that both individuals and corporates seek credit from.

In banking specifically, two primary kinds of credit services based on customer categories are offered: retail credit and wholesale credit. Lending in retail or personal banking are subject to individuals and may fall under: home mortgages, installment loans (such as consumer loans, educational loans and auto loans, just to mention the three) credit card revolving loans, revolving credits (such as overdrafts), etc. (Crouhy et al., 2006).
Wholesale lending, on the other hand, involves firms as the borrowers and therefore is of much higher value, more complicated and poses more threats to the banks.

2.3.3 Challenges of Risk Management in Banking Firms

Banks share similarities with other types of corporations but still possess distinct features and certainly their risk management techniques are not the same. As a matter of fact, banks form a crucial part of the financial market and any moves by banks can have immediate impacts on the country’s or even the global financial healthiness. The world has been observing a lot of crises stemmed from banking institutions then spread to the whole financial sector, typically of which is the 2008 economic downturn. The issue of a safe and sound banking sector and the importance of a feasible risk management framework in banks are now more alarming than ever.

Risk management in a bank refers to a set of policies to manage and monitor transactions and activities which can adversely impact banking operations, and enact proactive measures to identify, control and minimize these risks (Ardrey, Perryer, Keane and Stockport, 2009). The policies in practice usually establish standard processes, models, practices, management tools, evaluation criteria, review time intervals which are to be implemented in the bank’s entire system. The policies are mostly reviewed on an annual basis except for sudden happenings that urge a quick response.

Undeniably banking risk management in the modern business world takes place in such a great scale and unexpected manner. On the one hand, the creation and development of a number of risk instruments allow higher risk diversification, better prediction and more effective solutions to the potential dangers in the global financial market. On the other hand, growing interactions among financial institutions in the world make room for a possible sequential effect if something goes wrong. The consequences might be far beyond the doors of the banks and investors themselves (Utrecht University, 2010).

In spite of the risky world they operate in, banks are truly risk machines in the economies. “They take risks, they transform them, and they embed them in banking products and services”. The first and foremost aim is to increase revenues for the bank thanks to the relationship between risk and return. Second, competitive advantage might be a powerful
motive for banks to take risks (Arora and Agarwal, 2009). For example, a commercial bank trades oil with an airline corporation in form of forward contracts. This is one type of derivatives offered by the bank that is extremely risky. Yet they can gain, either a little or a lot, if their estimation is on the right track.

Although banks still play the most vital part in protecting themselves from unfavorable occurrences, bank regulators have their important responsibilities. Banking in most countries falls under extremely strict supervision despite the increasing trend of liberalization and deregulation. Two main reasons are “banks collect deposits from ordinary savers and they play a key role in the payment and credit system”. In any case those banks fail to meet their obligations; the governments will be the rescuers (Crouhy et al., 2006). Therefore, stringent control is indispensable

Internationally, the most well-known regulation is the Basel Accords issued by the Basel Committee on Bank Supervision. Basel II (2004), which is the successor of Basel I (1988), is currently being in use. The overall aim of Basel II is adequate capitalization of banks and best practice risk management to reinforce the banking system’s stability through “three pillars”: minimum capital requirements, supervisory review and market discipline (Crouhy et al. 2006). Many countries, especially the European ones, adhere their operations with Basel II. However, most developing nations, including Kenya, are still on the way to adopt it. In those cases, central banks have a significant role in issuing nationwide control policies, guiding banks to implement them and following up banks’ performance.

According to Caouette, Altman, Narayanan, Nimmo (2008), credit risk management lies in an expert analysis system, whose objective is to look at both the borrower and the lending facility being proposed and to assign a risk rating (Caouette et al., 2008). The analyzed information is summarized in figure 3 on the next page. Among the evaluated data, financial ratios are perceived to be very important. The philosophy that Caouette et al. presents is that credit risk management as a form of engineering in which “models and structures are created that either prevent financial failure or else provide safeguards against it”. However, most of the models are for enterprises in general. For financial institutions or banks, perhaps the credit analysis system is of much larger help.
Figure 2.3: Credit Analysis Process Flow

Source: Caouette, Altman, Narayanan and Nimmo (2008, pp.108)

According to Crouhy, Galai and Mark (2006), the bank credit risk management can be divided into retail and commercial credit risk management. Credit risk management based upon portfolio management is highlighted for both retail and commercial. This means that the customers are categorized into different portfolios, each of which is homogenous in several characteristics. Instead of manage every single client, the bank will handle them in groups and therefore usually saves time, effort and cut cost. For retail banking, the book introduces the credit scoring model that is customized for personal banking.
Commercial lending, on the other hand, will utilize the helpfulness of internal risk rating system established based on the rating system of professional credit rating agencies such as Moody’s, Fitch Ratings or Standard and Poor's. Either the credit scoring or internal rating is both based upon financial and non-financial assessment. Several credit models and credit derivatives are also presented as new approaches to, respectively, measure and to mitigate credit risk management (Crouhy, Galai and Mark, 2006).

2.3.4 Challenges of Credit Card Risk
Credit card risk occurs when the debtor cannot repay part or whole of the debt to the creditor as agreed in the mutual contract. More formally, credit risk arises whenever a lender is exposed to loss from a borrower, counterparty, or an obligor who fails to honor their debt obligation as they have agreed or contracted. This loss may derive from deterioration in the counterparty’s credit quality, which consequently leads to a loss to the value of the debt (Colquitt, 2007) or in the worst case, the borrower defaults when is unwilling or unable to fulfill the obligations (Crouhy et al., 2006).

That is the story Greece is facing. The Greek government, on behalf of the country, is a debtor to a lot of banks in Germany and France, just to mention the two. Now when the country defaults and is not able to pay the debts, EU and IMF have to interfere to prevent the country from going bankrupt and also to help the European banks avoid big losses (The Wall Street Journal, 2010).

2.3.5 Credit Failures
In banks, credit failures are not rare and they critically affect the bank’s liquidity, cash flows and eventually, profit and shareholders’ dividends. Banks call them ‘bad debts’. Modern banking no longer experiences credit risk solely in its traditional activity of loan making but also in credit card transactions. In reality, credit risk may fall in a broader scope (Oscherville, 2005). For instance, a well-known British banking group sees that the group’s credit risk may take the following forms: lending funds are not repaid, guarantees or bonds funds are not ready upon collection of the liability, treasury products payments due from the counterparty under the contract is not forthcoming or ceases, trading businesses settlement are not affected, the reinsurance counterparty will be unwilling or unable to meet its commitments, cross-border exposure and free transfer of currency is
restricted or ceases and holdings of assets in form of debt securities fall after a downgrading of credit rating (Bellis, 2007).

Again it is necessary to stress that credit risk has always been the biggest threat to any bank’s performance and the principal cause of bank failures (Greuning and Bratanovic 2009). Therefore, a sound credit card risk management framework is indispensable to a healthy and profitable banking institution like Barclaycard. Figure 2.2 presents a clearer view of how credit risk management looks like in a bank. The main risk management’s mission is to bring benefits to the companies and makes them sustainable. Also, risk management is at the heart of any firm’s strategy. The significance of risk management in an organization’s activities was surprisingly ignored for a long time. It used to be regarded as no more than insurance. It only started to catch attention from business top executives in the 1990s after the enormous derivatives disasters triggered in the United States that shook Barings Bank, Procter & Gamble, Gibson Greetings, BankAmerica Corp. and many other giants with loss of billions of dollars (Culp, 2001; Markham, 2002). Therefore, risk management is an ongoing and continuously developing process.

Figure 2.4: Risk Management Process

Another significant note is that risks must be put in the relevant contexts whenever analyzed and controlled.

Table 2.2: Business Contexts

<table>
<thead>
<tr>
<th>Inner Contexts</th>
<th>Outer Contexts</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Organizational Structure</td>
<td>• Economies and Markets</td>
</tr>
<tr>
<td>• Resources</td>
<td>• Public Policy, Regulation and Standards</td>
</tr>
<tr>
<td>• Culture</td>
<td>• Social, Historical and Political Climate</td>
</tr>
<tr>
<td>• Power Relations</td>
<td>• Physical Conditions and Climate</td>
</tr>
<tr>
<td>• Risk Cognitions</td>
<td>• Technology</td>
</tr>
<tr>
<td>• Strategy</td>
<td></td>
</tr>
<tr>
<td>• Motivations and Meanings of Success</td>
<td></td>
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</tbody>
</table>


It means risk management strategy is standardized only to some extend because firms operate in varied inner and outer contexts. For instance, a German business entry in Kenya will be completely different to that in Finland due to dissimilarities in the markets, cultures, economic development and human resources. Risk management contexts must take the “time” element into consideration also. Several years ago, a Kenyan firm might export its products to Greece without any substantial risk fears. The story is totally different now when Greece defaults and this has been badly affecting Greek banks as well as businesses.

To conclude, risk management has been increasingly concerned by any kind of firms and considered critical to their overall management strategy and organization culture. It is actually a continuous sequence and should be reviewed and improved all the time.

2.4 Strategic Responses to Risk Management

2.4.1 Overview of Strategic Response to Risk Management

Strategic response to credit card risk management ensures a successful competitive performance for the organization (Rochart, 1979). They are the few key areas where things must go right for the business to flourish. If results in these areas are not adequate, the organization’s efforts for the periods will be less than desired. Hence strategic response to risk management maintains a high performance for an organization’s currently operating activities and its future (Boynton and Zmud, 1984).
Strategic response to risk management is appropriate to each unit of business and the overall organization aim is to fulfill the organization’s objectives. There are several strategic response to risk management mentioned by several authors who include: Colquitt (2007), Grabowski and Roberts (1999), Hasanali (2002) and NSW Department of State and Regional Development (2005).

2.4.2 Colquitt Model of Risk Management

Colquitt (2007) mentions that the response to risk management is embodied in credit culture, credit organization, credit policies and credit risk management process. According to Colquitt, a lending organization’s credit risk management framework is designed under an umbrella guideline called “credit culture”. Credit culture covers the attitudes, perceptions, behaviors, styles, and beliefs that are conducted and practiced throughout the credit organization as a result of management attitudes towards credit risk.

It is usually presented in the mission, objectives, and lending strategies to legitimize the value placed on credit quality and safe sound lending practices. A credit culture supplies a general framework to guide day-to-day credit decisions. For instance, a UK banking group acknowledges successful control and management of risk require a strong credit culture, which seeks to minimize credit losses as well as to enhance risk-adjusted returns. Credit culture plays a role as the foundation upon which clear policy and guidance, credit discipline, policies, systems, approval and control are established (Colquitt, 2007).

According to Colquitt (2007), an effective credit culture should include: the maximum annual growth rates for loans, the targeted returns, acceptable exposure levels (quantified) of different debt types (based on liquidity and term structures), desired loan portfolio composition, desired portfolio growth and targeted earnings, credit standards used in assessing loan requests for each type of loan, risk appetite, lending authority and approval limits (optional).

Another way of managing risk is through credit organization. Credit organization and administration refer to the human factor of the credit function in a banking institution. Each lending organization has its self-designed credit process but basically the processes include the same tasks in a cycle:
Credit organization means the hierarchy of the people participating in the above cycle. For some banks, the structure may take geographical areas into account. In large banks, each function in the cycle may be carried out by one separate person. In smaller banks, one person can be in charge of several duties. In the investigated transaction office, for instance, a relationship manager is responsible for: credit generation, credit assessment, loan granting, and credit administration. Very often, credit risk management function will be led by the head of credit risk management. Under him/her will be credit officers and relationship managers. If the bank operates in different regions, regional manager can be direct boss to credit officers and relationship managers (Colquitt, 2007).

In general, the organizational structure varies. Management approaches can be centralized or decentralized. The former means credit department is in charge of every credit-related activity from credit generation to policy review. The decentralized style, on the other hand, emphasizes mutual contribution of both sales (find borrowers and assess repayment capability) and credit units (other tasks). Three essential functions in the cycle that
directly affect the quality of credit risk management implementation and should get special concern are credit assessment, credit approval, and credit administration.

Credit assessment is usually done by the relationship managers or credit officers. This task involves checking the loan applicant’s legal position, aim of borrowing, business or industry and any recorded borrowing information in the past. Credit assessment is one basis for credit approval. The person in charge of credit approval will also consider the bank’s policy regarding types and amount of collateral, exposure limits of a particular industry, etc. and if possible, gives the borrower some risk ratings to facilitate his decision. In practice, a number of people are responsible for approving loans (Colquitt 2007). The higher position in the credit institution the person stands, the larger value of credit he/she can approve. A Chief Risk Officer certainly has more power than the Branch Manager in authorizing loans.

Credit administration, on the other hand, does the post-approval job of monitoring the loans’ credit quality and the borrowers. A credit controller has to check if the borrowers are still adhering to their commitments in the loan application and if the credit quality has been deteriorated due to some reasons. Besides, internal auditor can give a hand in examining documentation procedures. A small mistake in documentation may be utilized by untruthful borrowers and go against the bank in an unexpected way (Colquitt 2007).

Credit policies are important element in managing risks. Any kind of organization must work under certain regulations. In credit risk management, formal policies are always of great importance because lending or financing activity is, most of the time, routine and structured. Well-established policies and procedures enhance handling speed and eliminate unnecessary repeated work (Colquitt 2007). In banking business, two main types of policies directly influence the way the banks operate and manage credit risk: Regulatory external policies and the bank’s internal policies. By policies here, the author means any kind of written documents issued to guide credit risk management practices. They can be laws, decrees, decisions, strategies, policies, procedures, guidelines, or manuals.
Credit risk is extremely concerned with strict regulations set by the governments and international organizations such as the Basel Committee on Bank Supervision. The first pillar of the Basel Accords deals with minimum capital requirements which are helpful in facilitating the bank to deal with credit risk and 2 other types of risk (Crouhy et al., 2006). Currently Basel II requires the capital adequacy ratio of 8% but it is subjected to increase to 14% according to Basel III. This results from the recent financial crisis that hit the world hard in 2008 and 2009 (Wall Street Journal, 2010).

At present Basel Committee have only 27 members, which means banks in 27 countries are following Basel II. In other countries, the governments and central banks will issue legislations regarding banking practices, specifically credit activities. Central banks also oversee the implementation of those legislations in each and every member bank. The regulations often include: limitations on single customer: the maximum permitted exposure to a single client, related group, or an economic sector and the provisions for loan losses through the reserves that the bank keeps to deal with potential losses from loan making activity (Greuning and Bratanovic, 2009). For the regulatory policies, the banks have no choice but to rigidly follow. Any non-compliance with the laws may lead to severe punishments.

According to Greuning and Bratanovic (2009), the bank’s own policies are designed to reduce credit risk and maximize returns. There can be a wealth of formal written policies related to credit activity but the most important is the lending policy (or procedure). The first and foremost requirement for successful credit risk management is a clear and well-structured lending policy. A lending policy should specify how loans are organized, approved, supervised and collected. It should also contain the following fundamental points: lending authority and limits for each credit approver, duties of each credit person or sub-unit, assessment process and approval criteria, regulation on a complete loan application document, loan pricing (risk-based) and maturities, post-approval supervision and collections control, overdue debts and recovery and the processing time.

Besides lending policies, Greuning and Bratanovic (2009) mentions that there can be a number of other policies such as: policies on collateral where a borrower pledges to secure a loan or other credit products. It acts as a guarantee that the borrower will repay
the credit. Mostly the Collateral has a bigger value than the credit (at the time of credit application). However, any change in market may lead to a reduction in the Collateral value, which means deterioration in the credit quality.

There is also internal credit rating system: A powerful credit risk measurement tool used by a lot of banks. This system automatically makes some calculations of the debtor’s information (identity, financial data, nature of the industry that the debtor belongs to, the status of the debtor, the potential effect of macroeconomic events on the debtor) and gives out a result which is called the rates. The bank will identify a certain investment grade which means credit applicants falling within the investment grade will be granted loans (Greuning and Bratanovic, 2009).

Another policy is the asset classification categories. This involves the categorization of debt based on different criteria such as types of customers (individuals, corporate, financial institutions), values of customers (SMEs, big corporate, global organizations), or terms of structure (1 month, 3 months or 9 months). The other policy is the loan loss provision policy where the bank sets aside reserves to cover any unexpected default and thus, to prevent the bank from bankruptcy (Greuning and Bratanovic, 2009). There are also a number of studies on Critical Success Factors contributing to risk management.

2.4.3 Grabowski and Roberts’ Model of Risk Management
Grabowski and Roberts (1999) examine the problem of risk mitigation and suggest a process designed to support the high level of performance in an organization. They identify the four important factors as: organizational structuring and design, communication, organizational culture and trust.

Galorath (2006) focuses on the importance of risk management, the essence of risk management and assesses the processes to implement risk management. Galorath argues that risk management requires five activities, which are as follows: top-level management support, an integral part of the entire program management structure and processes, the participation of everyone involved cultural imperative and a pattern of measurement.
Carey (2001) reviews the Turnbull’s approach for risk management. Carey describes the Turnbull report and how to apply this approach in order to manage risk. The approach can be summarized in the nine main issues which are: the importance of sound judgment, identification issues, keeping control of your reputation, assessing the importance of risks, verifying your judgments, changing management, embedding risks, cultural challenges and remuneration issues.

2.4.4 Hasanali’s Factors of Risk Management
Hasanali study (2002) is related to management in an organization. This study maintains that the success of knowledge management depends upon many factors. In the point of view of the authors, there are some interesting factors which should be adopted to risk management. Hasanali’s critical risk management factors can be categorized into five categories: leadership, culture, structure, roles and responsibilities, information technology infrastructure and measurement.

2.4.5 NSW Guide of Risk Management
NSW Department of State and Regional Development (2005) proposed a practical guide for managing risk which provides a basic understanding of risk management in small businesses. This document helps to implement the risk management process. In the last part of this guide, it is argued that a business needs to adopt risk management because effective risk management is important. Therefore, risk management should include: ensuring appropriate commitment to risk management, setting clear objectives and guidelines for risk management, allocating adequate resources, training staff appropriately, implementing systems for monitoring and reviewing risks including credit card risk of fraud.

To conclude, the consumer credit risk management should be treated as a top priority to avoid bad debt in credit card receivables. This requires the cross-sharing of credit information among lenders and with regulatory agencies, the development of an updated and comprehensive national consumer credit database, and the use of credit risk modeling and scoring in predicting consumer behavior. Securitization of credit card receivables into asset-backed securities might also serve as an alternative to traditional credit risk management.
2.5 Chapter Summary

The chapter reviewed literature on the strategic response to commercial risk management in the credit card industry. The first section looked at literature on the types of banking risks and the position of credit card risks among them. The second section explored literature on the difficulties in credit risk management that arises from the credit card market. The third section of the literature identified successful critical success factors in credit card risk management. The next chapter is on the research methodology.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The study aimed to evaluate the strategic response to commercial risk management in the credit card industry. This chapter highlights the various methods and procedures the researcher will adopt in conducting the study in order to answer the research questions raised in the first chapter. The chapter is organized in the following structure: the research design, population and sample, data collection methods, sampling design and sample size, research procedures, data analysis methods and lastly the chapter summary.

3.2 Research Design

This research adopted a descriptive research design. A descriptive research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way. In addition, a descriptive study attempts to describe a subject, often by creating a profile of a group of problem, people or events, through collections of data and the tabulation of frequencies on research valuables and the research reveals who, what, when, where or how much (Shuttleworth, 2006).

A survey in form of standardized questions in a questionnaire was used to collect data. A survey is defined by Balnaves and Caputi (2001) as a method of collecting data from people about who they are, how they think (motivations and beliefs) and what they do (behaviour). The researcher administered standardized questionnaires and applied descriptive and inferential statistics to evaluate the data and come up with a conclusion.

The study adopted a quantitative approach to measure the types of credit card risks, explore the challenges in credit risk management that arises from the credit card market and the strategic responses to credit card risk management. Therefore, a descriptive method was used to measure the nature and relations between the events of credit card risks and management of the risks.

3.3 Population and Sampling Design

3.3.1 Population

Cooper and Schindler (2006) describe a population as the total collection of elements whereby references have to be made. The population sampled in Barclaycard was 153 on
average. This population comprised of 5 credit assessment team, 126 sales team, 15 application vetting team, 2 commercial risk team and 5 employees from compliance and support team. This population of interest had the potential of providing the relevant information regarding the strategic response of Barclaycard to commercial risk management in the credit card industry.

### Table 3.1: Population Distribution

<table>
<thead>
<tr>
<th>UNIT</th>
<th>Total</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Assessment Team</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Sales Team</td>
<td>126</td>
<td>82</td>
</tr>
<tr>
<td>Application Vetting Team</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Commercial Risk Team</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Compliance and Support Team</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

#### 3.3.2 Sampling Design

##### 3.3.2.1 Sampling Frame

A sampling frame is a list of elements from which the sample is actually drawn and closely related to the population (Cooper and Schindler, 2006). In this study, the sampling frame was drawn from the human resource data base. This ensured that the sampling frame was current, complete and relevant for the attainment of the study objectives.

##### 3.3.2.2 Sampling Techniques

This study adopted stratified sampling technique. The population was stratified into five groups comprising of credit assessment team, sales team, application vetting team, commercial risk team, employees from compliance and support team. The advantage of this method is that it increases statistical efficiency and provides data for analysis of the various sub-populations (Cooper and Schindler, 2003). In addition, the sampling technique ensured the selection of respondents with the requisite information to address the specific research questions thereby enhancing the credibility and reliability of the findings of this study.

##### 3.3.2.3 Sampling Size

The sample size is a smaller set of the larger population (Cooper and Schindler, 2003). Determining sample size is a very important issue for collecting an accurate result within
a quantitative survey design. According to Hussey and Hussey (1997) no survey can ever be deemed to be free from error or provide 100% surety and error limits of less than 5% and confidence levels of higher than 95% was regarded as acceptable. Bearing this in mind, at a confidence level of 95%, the margin of error was 0.5%. To obtain the minimum population sample for this study, the researcher adopted a stratified sampling as a technique using Yamane’s formula (cited in Israel, 1992) is as follows:

\[
n = \frac{N}{1 + N(e)^2}
\]

Where \( n \) is the sample size, \( N \) is the population size and \( e \) is the margin of error.

\[
n = \frac{153}{1 + 153(0.05)^2}
\]

\[
n = 113
\]

Therefore a sample size of 113 was selected from a total population of 153 employees; this was sufficient and representative of the population. The sample population was comprised of 4 credit assessment team, 90 sales team, 11 application vetting team, 1 commercial risk team and 4 employees from compliance and support team. The sample population distribution is presented as below.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>Target</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit Assessment Team</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Sales Team</td>
<td>90</td>
<td>82</td>
</tr>
<tr>
<td>Application Vetting Team</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>Commercial Risk Team</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Compliance and Support Team</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>113</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

The study used primary data collection. The primary data collection method was collected by the use of questionnaires. Maholtra (2007) explains that questionnaires are an important data collection tool. In addition, the use of questionnaires is justified because they provide an effective and efficient way of gathering information within a very short
Further, questionnaires facilitated easier coding and analysis of data collected. The questionnaires administered was divided into four sections: the first section analyzed the respondent’s demographics, the second section of the questionnaire looked at the types of credit card risks in the industry, the third section explored the challenges in credit card risk management and the fourth section identified the strategic responses to credit card risk management.

3.5 Research Procedures

A pilot test involving 4 respondents was carried out to evaluate the completeness, precision, accuracy and clarity of the questionnaires. This ensured the reliability of the data collection instruments used. After the amendment of the final questionnaire, the researcher explained the purpose of the research to the Barclaycard management and also sought permission from them to carry out the research on the given topic. The questionnaires were then administered to the employees. The questionnaires were personally administered by the researcher. This method of administration was justified as the nature of the research required expert knowledge of risk management for the participants to be able to provide appropriate response as was expected from the research questions. Follow up on the filling of the questionnaires ensured high response rate. Each questionnaire took approximately 8 minutes to fill.

3.6 Data Analysis Methods

To ensure easy analysis, the questionnaire was coded according to each variable of the study. This study used descriptive statistics. According to McDanile and Gates (2001), descriptive analysis involves a process of transforming a mass of raw data into tables, charts, with frequency distribution and percentages, which are a vital part of making sense of the data. In this study, data was analyzed using Statistical Package for Social Sciences (SPSS) program, that is, this descriptive study used measures of central tendency, in particular mean and measures of dispersion measuring standard deviation, coefficient of variation to determine skewness of data, regression and correlation analysis. Clear presentation of data was done using tables, and figures to give a clear picture of the research findings at a glance.
3.7 Chapter Summary

This chapter highlighted the various methods and procedures the researcher adopted in conducting the study in order to answer the research questions raised in the first chapter. The research design was a descriptive research, the population under study comprised of one hundred and fifty three employees and a sample of one hundred and ten respondents, data collection methods involved primary data collections by use of questionnaires, research procedures involved the conduct of a pilot study to confirm the reliability of the research instruments and also explain the purpose of the study to the respondents, data analysis methods involved quantitative technique in which the data was analyzed using Statistical Package For Social Science (SPSS). The next chapter presents the findings of the research.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter addresses the results and findings on the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited. The findings are outlined according to specific objectives of the study. The findings are based on the responses from the questionnaires filled and information gathered on the research questions. The first research objective was to identify the types of risks that the credit card business is exposed to. The second section identified the challenges of risk management faced by the credit card industry and the third section examined the strategic responses to risk management in the credit card industry. Out of a targeted 110 respondents, 84 responded to the questionnaires. This represented an effective response rate of 74%. The findings are presented in Table 4.1.

<table>
<thead>
<tr>
<th>Category</th>
<th>Target Respondents</th>
<th>Response</th>
<th>Response Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>113</td>
<td>84</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>113</td>
<td>84</td>
<td>74</td>
</tr>
</tbody>
</table>

4.2 General Information

The general information is organized in the following areas. The section indicates the respondents' gender, age, marital status, education level, work experience, policy for risk management, implementors of risk management and the support for establishing risk management in the organization.

4.2.1 Gender of Respondent

The findings illustrated that 69% of the respondents were male and 31% of the respondents were female. Thus, the findings indicate that the majority of the respondents were male respondents. The findings are indicated on Figure 4.1.
Figure 4.1: Gender of Respondent

4.2.2 Age of Respondent
The findings illustrated in Figure 4.2 indicated that 55% of the respondents were aged between 31 to 40 years, 22% were between 41 to 50 years, 14% were between 21 to 30 years, 9% of the respondents are above 51 years. Therefore, the findings indicate that most of the respondents were aged between 31 to 40 years.

Figure 4.2: Age of Respondent

4.2.3 Marital Status of Respondent
The study aimed to analyze the marital status of the respondents involved in the study. The findings established that majority of the respondents were single (38%), 37% were
married, 12% widowed, 10% divorced and 2% separated. The findings are indicated in Figure 4.3.

Figure 4.3: Marital Status of Respondent

4.2.4 Respondent Level of Education

The findings illustrated in Figure 4.4 indicated the respondents’ highest level of education. Majority of the respondents had graduate degrees (77%), 12% post graduate degree and 10% had diploma. This indicates that the respondents were relatively educated.

Figure 4.4: Respondent Level of Education
4.2.5 Work Experience with Barclaycard
The findings illustrated in Figure 4.5 indicated the respondents’ work experience with Barclaycard. Majority of the respondents had between 7-10 years of work experience, 31% between 4 to 6 years, 14% between 1 to 3 years, 12% had over 10 and 3% had less than 1 year work experience. This indicates that the respondents were relatively experienced.

Figure 4.5: Work Experience with Barclaycard

4.2.6 Policy for Risk Management
The findings illustrated in Figure 4.4 indicated whether organization has a policy to support the management of risk from the respondents involved in the study. The results suggested that majority of the respondents agreed (86%) while 14% of the respondents suggested otherwise. This indicates that the organization has a policy to support management of risk.

Figure 4.6: Policy for Risk Management
4.2.7 Implementers of Risk Management

The study aimed to determine who has the authority to establish risk management in the organization from the respondents involved in the study. The findings established that majority of the respondents mentioned the board or committee (mean=4.485, sd=0.542) with a small variation of data (Cfvar =0.121). This was followed by the staff (mean=4.402, sd=0.745), Internal Auditor (mean=4.392, sd=0.771), Chief Financial Officer (mean=4.381, sd=0.756), Executive Management Team (mean=4.126, sd=0.925) and the Chief Executive Officer (mean=1.866, sd=1.272) with a significant variation of data (Cfvar =0.682). The findings are presented in Table 4.2.

Table 4.2: Implementers of Risk Management

<table>
<thead>
<tr>
<th>Implementers of Risk Management</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Cfvar</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board/Committee</td>
<td>4.485</td>
<td>0.542</td>
<td>0.121</td>
<td>1</td>
</tr>
<tr>
<td>Staff</td>
<td>4.402</td>
<td>0.745</td>
<td>0.169</td>
<td>2</td>
</tr>
<tr>
<td>Internal Auditor</td>
<td>4.392</td>
<td>0.771</td>
<td>0.176</td>
<td>4</td>
</tr>
<tr>
<td>Chief Financial Officer</td>
<td>4.381</td>
<td>0.756</td>
<td>0.173</td>
<td>3</td>
</tr>
<tr>
<td>Executive Management Team</td>
<td>4.126</td>
<td>0.925</td>
<td>0.224</td>
<td>5</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>1.866</td>
<td>1.272</td>
<td>0.682</td>
<td>6</td>
</tr>
</tbody>
</table>

4.2.8 Support of Risk Management Policy

The study aimed to determine how the organization supports risk management policy from the respondents involved in the study. The findings revealed that majority of the respondents supported the risk management strategy by obeying the policy (mean=4.419, sd=0.742) with the least variation of data (Cfvar=0.168). This was followed by the allocation of resources efficiently (mean=4.062, sd=1.019), listening to problems from employees (mean=2.649, sd=1.137), regularly revising risk management plans (mean=2.598, sd=1.077), setting up risk management team (mean=2.021, sd=1.250) and clearly allocating risk management responsibilities (mean=1.763, sd=1.456) with a significant variation of data (Cfvar=0.826). The findings are presented in Table 4.3.

Table 4.3: Support of Risk Management Policy
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<th>Mean</th>
<th>Std. Deviation</th>
<th>Cfvar</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board/Committee</td>
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<td>0.542</td>
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</tr>
<tr>
<td>Staff</td>
<td>4.402</td>
<td>0.745</td>
<td>0.169</td>
<td>2</td>
</tr>
<tr>
<td>Internal Auditor</td>
<td>4.392</td>
<td>0.771</td>
<td>0.176</td>
<td>4</td>
</tr>
<tr>
<td>Chief Financial Officer</td>
<td>4.381</td>
<td>0.756</td>
<td>0.173</td>
<td>3</td>
</tr>
<tr>
<td>Executive Management Team</td>
<td>4.126</td>
<td>0.925</td>
<td>0.224</td>
<td>5</td>
</tr>
<tr>
<td>Chief Executive Officer</td>
<td>1.866</td>
<td>1.272</td>
<td>0.682</td>
<td>6</td>
</tr>
</tbody>
</table>

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Table 4.3: Support of Risk Management Policy
Support of Risk Management Policy | Mean | Std. Deviation | Cfvar | Ranking
--- | --- | --- | --- | ---
Strictly obeying risk management policy | 4.419 | 0.742 | 0.168 | 1
Allocating resources efficiently | 4.062 | 1.019 | 0.251 | 2
Listening to problems from employees | 2.649 | 1.137 | 0.429 | 4
Regularly revising risk management plans | 2.598 | 1.077 | 0.414 | 3
Setting up risk management team | 2.021 | 1.250 | 0.619 | 5
Allocating risk management responsibilities | 1.763 | 1.456 | 0.826 | 6

4.3 Type of Credit Card Risks in the Industry

The study determined the type of bank and credit card risks among the respondents involved in the study. The findings established that there was exposure to deceptive e-mails (mean=4.41, sd=0.84) as the leading bank and credit card risks with a relatively low variation of data (Cfvar =0.190). This was followed by inadequate controls and monitoring of credit card transactions (mean=4.33, sd=0.73), there was high incidence of credit card theft (mean=4.24, sd=0.80) and rampant application of credit card with false information (mean=3.52, sd=1.06). On the other hand, there were low incidence of credit card duplicates (mean=2.67, sd=1.31), collusion of credit card fraud (mean=2.62, sd=1.63), borrowers unable to pay for their credit purchases (mean=2.42, sd=1.55) and fictitious credit card information (mean=2.22, sd=1.29) was among the very least factor on credit card risk with a relatively high variation of data (Cfvar =0.583). The findings are presented in Table 4.4.

<table>
<thead>
<tr>
<th>Type of Credit Card Risks</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Cfvar</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to deceptive e-mails</td>
<td>4.41</td>
<td>0.84</td>
<td>0.190</td>
<td>3</td>
</tr>
<tr>
<td>Inadequate controls and monitoring of credit card transactions</td>
<td>4.33</td>
<td>0.73</td>
<td>0.168</td>
<td>1</td>
</tr>
<tr>
<td>High incidence of credit card theft</td>
<td>4.24</td>
<td>0.80</td>
<td>0.189</td>
<td>2</td>
</tr>
<tr>
<td>Rampant application of credit card with false information</td>
<td>3.52</td>
<td>1.06</td>
<td>0.301</td>
<td>4</td>
</tr>
<tr>
<td>Incidences where a charge on credit card is not properly identified</td>
<td>3.28</td>
<td>1.40</td>
<td>0.429</td>
<td>5</td>
</tr>
<tr>
<td>Victims fail to comply with credit risk policies</td>
<td>2.92</td>
<td>1.58</td>
<td>0.541</td>
<td>7</td>
</tr>
<tr>
<td>High incidence of credit card duplicates</td>
<td>2.67</td>
<td>1.31</td>
<td>0.492</td>
<td>6</td>
</tr>
<tr>
<td>Regular collusion of credit card fraud</td>
<td>2.62</td>
<td>1.63</td>
<td>0.622</td>
<td>9</td>
</tr>
<tr>
<td>Borrowers unable to pay for credit purchases</td>
<td>2.42</td>
<td>1.55</td>
<td>0.641</td>
<td>10</td>
</tr>
<tr>
<td>Fictitious credit card information</td>
<td>2.22</td>
<td>1.29</td>
<td>0.583</td>
<td>8</td>
</tr>
</tbody>
</table>

4.3.1 Correlation on Risk Management and Type of Credit Card Risks
There was a significant relationship between implementation of risk management and identification of borrowers that are unable to pay for their credit purchases \((r=0.286, p>0.01)\). The relationship was extended to victims failing to comply with credit risk policies \((r=0.337, p>0.01)\). There was also a significant relationship between implementation of risk management and regular collusion of credit card fraud \((r=0.293, p>0.001)\). The findings are presented in Table 4.5.

**Table 4.5: Correlation on Risk Management and Type of Credit Card Risks**

<table>
<thead>
<tr>
<th>Type of Credit Card Risks</th>
<th>Implementation of risk management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrowers are unable to pay for their credit purchases</td>
<td>Pearson Correlation: 0.286**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): 0.008</td>
</tr>
<tr>
<td></td>
<td>N: 84</td>
</tr>
<tr>
<td>Victims fail to comply with credit risk policies</td>
<td>Pearson Correlation: 0.337**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): 0.002</td>
</tr>
<tr>
<td></td>
<td>N: 84</td>
</tr>
<tr>
<td>Regular collusion of credit card fraud</td>
<td>Pearson Correlation: 0.293**</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed): 0.007</td>
</tr>
<tr>
<td></td>
<td>N: 84</td>
</tr>
</tbody>
</table>

### 4.3.2 Regression on the Type of Credit Card Risks in the Industry

The findings in Table 4.6 indicate that there was a less significant correlation between the two variables, implementation of risk management and the type of credit card risks \((r=0.342, p=0.100)\). R square is 0.342 which implies that only 34.2% of combined risks in borrowers are unable to pay for their credit purchases, victims fail to comply with credit risk policies and regular collusion of credit card fraud is determined by the implementation of risk management. This means that every increase in one unit of risk management implementation, borrowers unable to pay for their credit purchases (UPCP) detection increases by a margin of 0.020 units, victims failures to comply with credit risk policies (VFCCP) is detected by 0.070 units and detection of regular collusion of credit card fraud (RCCF) increases by a margin of 0.013 units.

The equation of regression line is:
Risk Management Implement. = 1.455 + 0.020(UPCP) + 0.70(VFCCP) + 0.013(RCCF)

Table 4.6: Regression on the Type of Credit Card Risks in the Industry

<table>
<thead>
<tr>
<th></th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.342a</td>
<td>.117</td>
<td>.084</td>
<td>.359</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Borrowers are unable to pay for their credit purchases, Victims fail to comply with credit risk policies, Regular collusion of credit card fraud

Coefficientsa

<table>
<thead>
<tr>
<th>(Constant)</th>
<th>B</th>
<th>Std. Error</th>
<th>Beta</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Borrowers are unable to pay for their credit purchases</td>
<td>.020</td>
<td>.049</td>
<td>.068</td>
<td>.412</td>
<td>.682</td>
</tr>
<tr>
<td>Victims fail to comply with credit risk policies</td>
<td>.070</td>
<td>.054</td>
<td>.250</td>
<td>1.309</td>
<td>.194</td>
</tr>
<tr>
<td>Regular collusion of credit card fraud</td>
<td>.013</td>
<td>.055</td>
<td>.045</td>
<td>.246</td>
<td>.806</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Risk Management Implementation

4.4 Challenges in Credit Risk Management

The study aimed to identify the difficulties experienced in credit card risk management from the respondents involved in the study. The findings established that the bank risk management techniques takes place in an unexpected manner (mean=4.505, sd=0.647) as one of the least challenge of risk management with a low variation of data (Cfvar=0.144). This was followed by credit information leads to lower default and interest rates (mean=4.094, sd=1.206), management of the bank credit risks is faced with stringent regulations (mean=4.052, sd=1.349), borrowers’ debt exposes the bank to moral hazard (mean=4.052, sd=1.121). On the other hand, fewer respondents claimed that there was lack of risk management techniques (mean=2.750, sd=1.570), there were no difficulties in confirming the credit history of borrowers’ (mean=2.146, sd=1.596), there was less challenges in gaining knowledge about the consumers' creditworthiness (mean=2.063, sd=1.640) and very few respondents claimed that the bank does not know how to cope with credit risks information (mean=1.781, sd=1.378). The findings are presented in Table 4.7.
Table 4.7: Challenges in Credit Risk Management

<table>
<thead>
<tr>
<th>Challenges in Credit Risk Management</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Cfvar</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank risk management techniques takes place in an unexpected manner</td>
<td>4.505</td>
<td>0.647</td>
<td>0.144</td>
<td>1</td>
</tr>
<tr>
<td>Credit information leads to lower default and interest rates</td>
<td>4.094</td>
<td>1.206</td>
<td>0.295</td>
<td>4</td>
</tr>
<tr>
<td>Management of the bank credit risks is faced with stringent regulations</td>
<td>4.052</td>
<td>1.349</td>
<td>0.333</td>
<td>5</td>
</tr>
<tr>
<td>Borrowers’ debt exposes the bank to moral hazard</td>
<td>4.052</td>
<td>1.121</td>
<td>0.277</td>
<td>2</td>
</tr>
<tr>
<td>Hard to assess the quality of non-local credit seekers</td>
<td>3.938</td>
<td>1.103</td>
<td>0.280</td>
<td>3</td>
</tr>
<tr>
<td>Lack of credit information</td>
<td>3.469</td>
<td>1.376</td>
<td>0.397</td>
<td>6</td>
</tr>
<tr>
<td>Risk management and audit processes do not detect inappropriate or unethical activity</td>
<td>3.155</td>
<td>1.439</td>
<td>0.456</td>
<td>8</td>
</tr>
<tr>
<td>Creditworthiness may not be precise to reduce the client’s riskiness</td>
<td>2.753</td>
<td>1.581</td>
<td>0.574</td>
<td>10</td>
</tr>
<tr>
<td>Lack of risk management techniques</td>
<td>2.750</td>
<td>1.570</td>
<td>0.571</td>
<td>9</td>
</tr>
<tr>
<td>Difficulties in confirming the credit history of borrowers’</td>
<td>2.146</td>
<td>1.596</td>
<td>0.744</td>
<td>11</td>
</tr>
<tr>
<td>Challenges in gaining knowledge about the consumers’ creditworthiness</td>
<td>2.063</td>
<td>1.640</td>
<td>0.795</td>
<td>13</td>
</tr>
<tr>
<td>Bank does not know how to cope with credit risks information</td>
<td>1.781</td>
<td>1.378</td>
<td>0.774</td>
<td>12</td>
</tr>
</tbody>
</table>

4.4.1 Correlation on the Type of Risks and Challenges in Credit Risk Management

There was a significant relationship between high incidence of credit card theft and difficulty in assessing the credit worthiness of non-local credit seekers ($r=0.280, p>0.01$). The relationship was extended to on inadequate monitoring on credit card transactions and assessing non-local credit seekers ($r=0.425, p>0.01$). There was a significant relationship between exposure to deceptive e-mails and lack of precise creditworthiness to reduce riskiness ($r=0.287$) and the relationship was extended to risk management does not detect inappropriate activity ($r=0.359, p>0.01$).

There was a strong correlation between the charges on credit card not properly identified and the market lacking informational intermediaries ($r=0.356, p>0.01$). The relationship between difficulties in confirming the credit history of borrowers’ and lack of precision in measuring credit riskiness ($r=0.312, p>0.01$) was significant and the relationship was extended to the risk management not detecting inappropriate activity ($r=0.451, p>0.01$).
Challenges in gaining knowledge about consumers’ creditworthiness and difficulty in assessing non-local credit seekers for riskiness was significantly correlated ($r=0.352$, $p>0.01$). There was also a significant relationship on creditworthiness may not be precise to reduce riskiness ($r=0.314$, $p>0.01$), risk management do not detect inappropriate activity ($r=0.466$, $p>0.01$).

There was a strong relationship between the bank unable to cope with credit risks information and difficulty in assessing non-local credit seekers ($r=0.425$, $p>0.01$). The relationship was extended to creditworthiness may not be precise to reduce riskiness ($r=0.384$, $p>0.01$) and risk management does not detect inappropriate activity ($r=0.483$, $p>0.01$). The findings are presented in Appendix C.

4.5 Strategic Response to Risk Management

The study aimed to determine the strategic response to credit card risk management from the respondents involved in the study. The findings established that the leading strategy for combating risk management involved advising the customers on providing their credit card number (mean=4.608, sd=0.491) with a small variation of data (Cfvar=0.106). This was followed by the customers and the management regularly communicating with the card issuers (mean=4.165, sd=0.943), credit cards should never be kept in clients wallets (mean=4.031, sd=0.714) and risk reduction should involve creating clear and trustworthy credit card information (mean=3.113, sd=1.639). However, among the least strategy was fraudulent use of customer’s card should be reported to the bank immediately (mean=2.773, sd=1.800), banks should instill a strong corporate culture to minimize credit card risks (mean=1.505, sd=0.503), credit card loss, the issuers should be informed immediately (mean=1.495, sd=0.503) and bank should have guidelines or policies for credit card risk management (mean=1.186, sd=0.391) as the least strategy with a relative small variation of data (Cfvar=0.330). The findings are presented in Table 4.8.

<table>
<thead>
<tr>
<th>Strategic Response to Risk Management</th>
<th>Std. Deviation</th>
<th>Cfvar</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Customers should be advised against providing their credit card number | 4.608 | 0.491 | 0.106 | 1
Customers and the management should regularly communicate with the card issuers | 4.165 | 0.943 | 0.226 | 3
Credit cards should never be kept in clients wallets | 4.031 | 0.714 | 0.177 | 2
Risk reduction involves creating clear and trustworthy credit card information | 3.113 | 1.639 | 0.526 | 7
Customers' responsibility to notify the bank immediately they change their address. | 2.825 | 1.671 | 0.592 | 8
Fraudulent use of customer’s card should be reported to the bank immediately | 2.773 | 1.800 | 0.649 | 9
Banks should instill a strong corporate culture to minimize credit card risks | 1.505 | 0.503 | 0.334 | 5
Credit card loss, the issuers should be informed immediately. | 1.495 | 0.503 | 0.336 | 6
Bank should have guidelines or policies for credit card risk management | 1.186 | 0.391 | 0.330 | 4

4.5.1 Correlation on the Challenges and Strategic Response in Risk Management

There was a significant correlation between difficulties in confirming the credit history of borrowers’ and failure to detect unethical activity ($r=0.451$, $p>0.01$). The relationship was extended to customers advised against providing their credit card number ($r=0.370$, $p>0.01$) and the bank should have guidelines for credit card risk management ($r=0.627$, $p>0.01$). There was also a significant relationship between the challenges in gaining knowledge about the consumers’ creditworthiness and the failure to detect unethical activity ($r=0.466$, $p>0.01$). The relationship was extended to customers are advised against providing their credit card number ($r=0.447$) and the bank should have guidelines for credit card risk management ($r=0.314$, $p>0.01$).

There was a significant relationship between the bank not knowing how to cope with credit risks information and failure to detect unethical activity ($r=0.483$, $p>0.01$). The relationship was extended to customers are advised against providing their credit card number ($r=0.371$, $p>0.01$) and the bank should have guidelines for credit card risk management ($r=0.327$, $p>0.01$). There was a significant relationship between the lack of risk management techniques and risk reduction involves creating trustworthy credit card information ($r=0.597$, $p>0.01$) and the relationship was extended to strong corporate culture to minimize credit card risks ($r=0.320$, $p>0.01$).
Also, there was a significant relationship between the lack of credit information and customers advised against providing their credit card number \( (r=0.356, p>0.01) \). The relationship was extended to strong corporate culture to minimize credit card risks \( (r=0.487, p>0.01) \), reporting of credit card loss immediately \( (r=0.298, p>0.01) \) and the bank having guidelines for credit card risk management \( (r=0.342, p<0.01) \). In addition, there was a strong relationship between credit information leads to low default and interest rates and credit card loss, should be informed immediately \( (r=0.313, p>0.01) \). The findings are presented in Appendix D.

### 4.6 Chapter Summary

The study established that risk management was established in the organization. Most of the respondents supported the risk management strategy by obeying the policy. In determining the type of bank and credit card risks among the respondents involved in the study, the findings established that there was high exposure to deceptive e-mails among the respondents. In identifying the difficulties experienced in credit card risk management from the respondents involved in the study, it was established that the bank risk management techniques takes place in an unexpected manner as the most challenging factor in risk management. On the strategic response to credit card risk management, the findings established that the leading strategy for combating risk management involved advising the customers on providing their credit card number.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this section, the researcher provides a discussion on the findings of the research as compared to the findings in the literature review, the summary of the study and recommendations for further improvement on identifying the measures to be taken strategic response to commercial risk management in the credit card industry. The research is concluded on the basis of the conclusions drawn from the research questions.

5.2 Summary

The general objective of this study was to establish the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited. The study was guided by the following research objectives: To identify the types of risks that the credit card business is exposed to, identify the challenges of risk management faced by the credit card industry and to identify the strategic responses to risk management in the credit card industry.

This research adopted a descriptive research design. The population sampled in Barclaycard was 153 on average. This study adopted stratified sampling technique. Therefore a sample size of 113 was selected from a total population of 153 employees; this was sufficient and representative of the population. The sample population was comprised of 4 credit assessment team, 90 sales team, 11 application vetting team, 1 commercial risk team and 4 employees from compliance and support team. To ensure easy analysis, the questionnaire was coded according to each variable of the study. In this study, data was analyzed using Statistical Package for Social Sciences (SPSS) program, that is, this descriptive study used measures of central tendency, in particular mean and measures of dispersion measuring standard deviation, coefficient of variation to determine skewness of data, regression and correlation analysis. Clear presentation of data was done using tables, and figures to give a clear picture of the research findings at a glance.

On the type of bank and credit card risks among the respondents involved in the study. The findings established that there was exposure to deceptive e-mails as the leading bank
and credit card. This was followed by inadequate controls and monitoring of credit card transactions, there was high incidence of credit card theft and rampant application of credit card with false information. On the other hand, there were low incidence of credit card duplicates, collusion of credit card fraud, borrowers are unable to pay for their credit purchases and fictitious credit card information was among the very least factor on credit card risk.

In identifying the difficulties experienced in credit card risk management from the respondents involved in the study. The findings established that the bank risk management techniques take place in an unexpected manner as one of the least challenge of risk management. This was followed by credit information leads to lower default and interest rates, management of the bank credit risks is faced with stringent regulations, borrowers’ debt exposes the bank to moral hazard. On the other hand, fewer respondents claimed that there was lack of risk management techniques, there were no difficulties in confirming the credit history of borrowers’, there was less challenges in gaining knowledge about the consumers’ creditworthiness and very few respondents claimed that the bank does not know how to cope with credit risks information.

In determining the strategic response to credit card risk management, the findings established that the leading strategy for combating risk management involved advising the customers on providing their credit card number. This was followed by the customers and the management regularly communicating with the card issuers, credit cards should never be kept in clients wallets and risk reduction should involve creating clear and trustworthy credit card information. However, among the least strategy was fraudulent use of customer’s card should be reported to the bank immediately, banks should instill a strong corporate culture to minimize credit card risks, credit card loss, the issuers should be informed immediately and bank should have guidelines or policies for credit card risk management.
5.3 Discussion

5.3.1 Types of Credit Card Risks

Internet enabled fraud is also growing as it provides opportunities to key loggers of organized criminals with the card details. As the vast majority of all credit card transactions are now authorized and cleared on-line, hacking into the e-payment chain to intercept data can harvest many millions of card details (Crouhy et al., 2006). The findings revealed that a vast majority of the respondents claimed that exposure to deceptive e-mails was the leading bank and credit card risks. Criminals have internet resources to counterfeit credit cards. Anderson (2007) concurs that a common practice of credit card risk is that of phishing where fraudulent emails hijacking brand name of banks, credit cards companies are sent aimed at acquiring trickily financial data, account usernames and passwords.

Understanding risk alone is not sufficient to gain full insight of credit risk management because risk management concepts are missing. Thus, what was missing in credit risk management was the adequacy of controls and monitoring of credit card transactions (mean=4.33, sd=0.73). Risk management in a bank refers to a set of policies to manage and monitor transactions and activities which can adversely impact banking operations, and enact proactive measures to identify, control and minimize these risks (Ardrey, Perryer, Keane and Stockport, 2009). The policies in practice should be established as a quick response to risk management.

Credit card fraud occurs when there is a misuse of a card without authorization or unapproved purchases or the counterfeiting of cards (Wells, 2007). The findings showed that there was high incidence of credit card theft (mean=4.24, sd=0.80). The traditional types of fraudulent behaviour were identity theft which were related to family members or people that can easily access individual’s mail and personal information and committing fraud either by applying for a card or taking over the existing account. Abbey (2009) also mentioned credit card theft can also occur in dumpster diving or trashing, where criminals raid rubbish bins to search for credit card details and other sensitive information is becoming more widespread. Skimming of the magnetic stripe is also still
practiced either using highly sophisticated devices embedded in ATM’s capable of storing magnetic stripe data.

Application fraud is when someone applies for a credit card with false information. The findings established that there was rampant application of credit card with false information (mean=3.52, sd=1.06). The solution of detection of fraudulent information lies with the implementation of a fraud system that allows identifying suspicious applications. Affari and Finanza (2009) claims that the detection of application fraud occurs in two different situations have to be distinguished: when applications come from a same individual with the same details, the so-called duplicates, and when applications come from different individuals with similar details, the so-called identity fraudsters. However, there were low incidence of credit card duplicates (mean=2.67, sd=1.31), in addition, fictitious credit card information was among the very least factor on credit card risk with a relatively high variation of data.

In most banks, to be eligible for a credit card, applicants need to complete an application form. The findings established that the borrowers were unable to pay for their credit purchases (mean=2.42, sd=1.55). Credit generates debt that one party owes the other. Certainly the debtor will have to pay an extra amount of money for delaying the payment. In that circle, both debtor and creditor expect a return which is worth their paying more and waiting, respectively. Wholesale lending, on the other hand, involves firms as the borrowers and therefore is of much higher value, more complicated and poses more threats to the banks (Crouhy et al., 2006).

There was a less significant correlation between the two variables, implementation of risk management and the type of credit card risks (r=0.342, p=0.100). R square is 0.342 which implies that only 34.2% of combined risks in borrowers are unable to pay for their credit purchases, victims fail to comply with credit risk policies and regular collusion of credit card fraud is determined by the implementation of risk management. This means that every increase in one unit of risk management implementation, borrowers unable to pay for their credit purchases (UPCP) detection increases by a margin of 0.020 units, victims failures to comply with credit risk policies (VFCCP) is detected by 0.070 units and
detection of regular collusion of credit card fraud (RCCF) increases by a margin of 0.013 units.

5.3.2 Challenges in Credit Card Risk Management
The findings established that the bank risk management technique takes place in an unexpected manner as one of the least challenge of risk management. Eliminating each and every risk definitely is not the way because risk is an unavoidable element of life. Moreover there is a special relationship between risk and reward. If you want a higher rate of return, be willing to take risks and be tolerant of risks is a must (Book Rags, 2010). The exchange of information regarding the finances and payment history of borrowers is necessary to the development and smooth functioning of financial markets.

Pagano and Jappelli (1993) shows that credit information sharing reduces risks by improving the pool of borrowers, the findings indicated that credit information leads to lower default and interest rates (mean=4.094, sd=1.206). In principle, exchanging information about borrowers can have four effects: (i) improve banks’ knowledge of applicants’ characteristics, easing adverse selection problems (Cook, 1999); (ii) reduce the “informational rents” that banks could otherwise extract from their customers (Queen and Roll, 1987); (iii) eliminate or reduce the borrowers’ incentive to become “over-indebted” by drawing credit simultaneously from many banks without any of them realizing (Pagano and Jappelli, 1993).

Banks form a crucial part of the financial market and any moves by banks can have immediate impacts on its financial healthiness. The management of the bank credit risks is faced with stringent regulations (mean=4.052, sd=1.349). As the world witnessed a lot of financial crises stemming from banking institutions then spread to the whole financial sector. The issue of a safe and sound banking sector and the importance of a feasible risk management framework in banks are now more alarming than ever accompanied by severe stringent regulations and this act as a discipline device that cuts insolvent debtors off from credit (Orgler, 1970). Thus this prevents the borrowers’ debt from exposing the bank to moral hazard (mean=4.052, sd=1.121).
Lenders are often unable to observe the characteristics of borrowers, including the riskiness of their investment projects, and this induces adverse selection problems. Fewer respondents claimed that there was lack of risk management techniques (mean=2.750, sd=1.570). With an efficient and effective risk management technique, Levine (1998) agrees that lenders may be able to control the actions that borrowers take after receiving a credit. A borrower may relax his effort to prevent default or hide the proceeds of his investment to keep from having to repay his debts (Jappelli and Pagano, 2000). Even a solvent borrower may try to avoid repayment if the lender cannot observe or sanction his actions. The consequence is that lenders may ration credit or charge high borrowing rates (Levine, 1998).

Credit information reduces the potential of bad debts. There were no difficulties in confirming the credit history of borrowers’ (mean=2.146, sd=1.596). In addition, there were challenges in gaining knowledge about consumers’ creditworthiness and difficulty in assessing non-local credit seekers for riskiness was significantly correlated (r=0.352, p>0.01). This helps to estimate the creditworthiness more precisely, to offer the interest rate at the level more consistent with the particular client’s riskiness and to reduce the share of bad loans in bank’s credit portfolio (Biais and Gollier, 1997). Pagano and Jappelli (1993) acknowledge that by reducing informational problems and imposing discipline on borrowers, informational sharing generates social benefits like interest rates reduction, credit expansion and better credit allocation.

Further, the study established that there were less challenges in gaining knowledge about the consumers’ creditworthiness (mean=2.063, sd=1.640) and very few respondents claimed that the bank does not know how to cope with credit risks information (mean=1.781, sd=1.378). Petersen and Rajan (2005) advices that information intermediaries are essential in helping the banks reduce their expenses for information collection and analysis. Hence, this makes it less costly for the bank to monitor the existing customer credit history exists and disciplines the borrower because all the future loans will be granted on the conditions determined by customer previous behavior.
5.3.3 Strategic Responses to Risk Management

Credit assessment is usually essential for successful management of risks. The findings established that the leading strategy for combating risk management involved advising the customers on providing their credit card number (mean=4.608, sd=0.491) with a small variation of data (Cfvar=0.106). This task involves checking the loan applicant’s legal position, aim of borrowing, business or industry and any recorded borrowing information in the past. Credit assessment is one basis for credit approval. The person in charge of credit approval will also consider the bank’s policy regarding types and amount of collateral, exposure limits of a particular industry, etc. and if possible, gives the borrower some risk ratings to facilitate his decision (Colquitt 2007).

Risk management requires the support of the entire program management. Another strategy for effective risk response was on the customers and the management regularly communicating with the card issuers (mean=4.165, sd=0.943). This technique automatically makes some calculations of the debtor’s information such as identity, financial data and nature of the industry that the debtor belongs to, the status of the debtor, the potential effect of macroeconomic events on the debtor and gives out a result which is called the rates. Greuning and Bratanovic (2009), this helps the bank identify the type of the credit applicant for effective risk management.

The findings indicated that risk reduction should involve creating clear and trustworthy credit card information (mean=3.113, sd=1.639). According to Greuning and Bratanovic (2009), the bank’s own policies should be designed to reduce credit risk and maximize returns. There can be a wealth of formal written policies related to credit activity but the most important is the lending policy or the procedure. The first and foremost requirement for successful credit risk management is a clear and well-structured lending policy. A lending policy should specify how credits are organized, approved, supervised and collected. It should also contain the following fundamental points: lending authority and limits for each credit approver, duties of each credit person or sub-unit, assessment process and approval criteria, regulation on a complete loan application document, loan pricing (risk-based) and maturities, post-approval supervision and collections control, overdue debts and recovery and the processing time.
The nature of credit reporting identifies special credit card risks. Though credit reporters are not parties to any actual credit transactions the study indicated that the strategic response to risk management was reporting fraudulent use of customer’s card to the bank (mean=2.773, sd=1.800). The successful control and management of risk requires a strong credit culture, which seeks to minimize credit losses as well as to enhance risk-adjusted returns. Credit culture plays a role as the foundation upon which clear policy and guidance, credit discipline, policies, systems, approval and control are established (Colquitt, 2007).

Colquitt (2007) mentions that the response to risk management is embodied in credit culture, credit organization, credit policies and credit risk management process. Banks should instill a strong corporate culture to minimize credit card risks (mean=1.505, sd=0.503). According to Colquitt (2007), an effective credit culture should include: the maximum annual growth rates for loans, the targeted returns, acceptable exposure levels (quantified) of different debt types (based on liquidity and term structures), desired loan portfolio composition, desired portfolio growth and targeted earnings, credit standards used in assessing loan requests for each type of loan, risk appetite, lending authority and approval limits (optional).

Any kind of organization must work under certain regulations. Bank should have guidelines or policies for credit card risk management. Well established policies and procedures enhance handling speed and eliminate unnecessary repeated work (Colquitt 2007). In banking business, two main types of policies directly influence the way the banks operate and manage credit risk: Regulatory external policies and the bank’s internal policies. By policies here, the author means any kind of written documents issued to guide credit risk management practices. They can be laws, decrees, decisions, strategies, policies, procedures, guidelines, or manuals (Colquitt). Therefore, any lending organization’s credit risk management framework should be designed with a guideline of managing risks.
5.4 Conclusions

5.4.1 Types of Credit Card Risks
Internet enabled fraud is also growing as it provides opportunities to key loggers of organized criminals with the card details. It was revealed that a vast majority of the respondents claimed that exposure to deceptive e-mails was the leading bank and credit card risks. The policies in practice should be established as a quick response to risk management. Credit card fraud occurs when there is a misuse of a card without authorization or unapproved purchases or the counterfeiting of cards. Application fraud is when someone applies for a credit card with false information. The findings established that the borrowers were unable to pay for their credit purchases.

5.4.2 Challenges in Credit Card Risk Management
Bank risk management technique takes place in an unexpected manner as one of the least challenge of risk management. Eliminating each and every risk definitely is not the way because risk is an unavoidable element of life. Credit information leads to lower default and interest rates. The management of the bank credit risks is faced with stringent regulations. Lenders are often unable to observe the characteristics of borrowers, including the riskiness of their investment projects, and this induces adverse selection problems. There were no difficulties in confirming the credit history of borrowers’ challenges in gaining knowledge about the consumers’ creditworthiness.

5.4.3 Strategic Responses to Risk Management
Credit assessment is usually essential for successful management of risks. The leading strategy for combating risk management involved advising the customers on providing their credit card number. Risk management requires the support of the entire program management. Another strategy for effective risk response was on the customers and the management regularly communicating with the card issuers. The bank’s own policies should be designed to reduce credit risk and maximize returns. A lending policy should specify how credits are organized, approved, supervised and collected. The nature of credit reporting identifies special credit card risks. The response to risk management is embodied in credit culture, credit organization, credit policies and credit risk management process. Banks should have guidelines or policies for credit card risk management.
5.5 Recommendations

5.5.1 Recommendation for Improvement

5.5.1.1 Types of Credit Card Risks
Understanding risk is one way of gaining full insight of credit risk management. The policies in practice should be established as a quick response to risk management. The solution of detection of fraudulent information lies with the implementation of a fraud system that allows identifying suspicious applications. In most banks, to be eligible for a credit card, applicants need to complete an application form. In addition, the management should provide adequate resources for risk management, there should be a risks management team for monitoring all the credit card risks involved and risk management policy should be obeyed by all.

5.5.1.2 Challenges in Credit Card Risk Management
Risk management should be planned to avoid them from happening unexpectedly. Credit information should be shared to improve the pool of borrowers, improve banks’ knowledge of applicants’ characteristics, easing adverse selection problems, reduce the borrowers’ incentive to become “over-indebted” by drawing credit simultaneously, prevent the borrowers’ debt from exposing the bank to moral hazard and reduce the potential of bad debts. Lenders should be able to observe the characteristics of borrowers which help to estimate the creditworthiness more precisely, to offer the interest rate at the level more consistent with the particular client’s riskiness and to reduce the share of bad loans in bank’s credit portfolio.

5.5.1.3 Strategic Responses to Risk Management
Credit assessment should be carried out regularly. Customers should regularly be advised against providing their credit information. Risk management also requires the support of the entire program management. Bank policies should be designed to reduce credit risk and maximize returns. A lending policy should specify how credits are organized, approved, supervised and collected. The nature of credit reporting should be able to identify special credit card risks. Also, risk management should be embodied in bank culture, credit organization, credit policies and credit risk management process. Generally, the bank should have guidelines or policies for credit card risk management.
5.5.2 Recommendations for Further Studies

The main objective of this study was to establish the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited. The study suggests that future researchers can a comparison of credit card risk management between lenders to add new knowledge in this field of research.
REFERENCES


APPENDIX A: LETTER OF INTRODUCTION

To Whom It May Concern

Dear Sir/Madam,

We are pleased to inform you that the bearer of this letter is a graduate student at United States International University pursuing a Masters degree in Business Administration, with a bias on strategic management. As partial fulfillment of her degree, Elvira Migwa is conducting a research on the strategic response to commercial risk management in the credit card industry using the case of Barclaycard Kenya Limited.

Please note that any information you give will be treated with confidentiality and at no instance will it be used for any other purpose other than for this project. Your assistance will be highly appreciated. I look forward to your prompt response.

Yours Faithfully,

Supervisor

Elvira Migwa
(Researcher)
APPENDIX B: QUESTIONNAIRE

Section A: Demographic Profile

1. Sex:
   Male   Female

2. Age:
   Under 20 years   31-40 years
   21-30 years   41-50 years
   Above 51 years

3. Marital Status:
   Single   Separated
   Married   Divorced
   Widowed

4. Education Level:
   High School   Certificate
   Diploma   Graduate Degree
   Post Graduate Degree   Other

5. For how long have you worked with Barclaycard?
   Less than 1 year   7-10 years
   1 - 3 years   Over 10 years
   4 - 6 years

6. Does your organization have a policy to support the development of risk management?
   Yes   No

7. Who has the authority to establish risk management in your organization?

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Chief Executive Officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Chief Financial Officer</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Board/Committee</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Executive Management Team</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Internal Auditor</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. Staff</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Other (Please Specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

70
8. How does your organization support its risk management policy? (Please tick the extent to which you agree with the following statements by using a scale of 1 to 4 where 1= strongly disagree and 4 = strongly agree. Circle (O) which best describes your opinion of the statement).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Allocating resources efficiently</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>b. Clearly allocating risk management responsibilities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>c. Setting up risk management team</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>d. Regularly revising risk management plans</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>e. Listening to problems from employees</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>f. Strictly obeying risk management policy</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>g. Other (please specify)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section B: Type of Credit Card Risks in the Industry

<table>
<thead>
<tr>
<th>Type of Credit Card Risks in the Industry</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a high incidence of credit card duplicates using a device that reads and duplicates the information from the original card.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. Borrowers are unable to pay for their credit purchases</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Often there are fictitious credit card information</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Most victims fail to comply with credit risk policies and procedures in giving out their credit card information</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. There are regular collusion of credit card fraud among the bank staffs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. There is a high incidence of credit card theft</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. There are inadequate controls and monitoring of credit card transactions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. There is rampant application of credit card with false information.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. Most victims are exposed to deceptive e-mails that ask them to provide credit card numbers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. There are incidences where a charge on credit card is not properly identified or someone is charged more than once.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

10. What other factors not mentioned above are part of the bank and credit card risks?
Section C: Challenges in Credit Risk Management

Please tick the extent to which you agree with the following statements by using a scale of 1 to 4 where 1 = strongly disagree and 4 = strongly agree. Circle (O) which best describes your opinion of the statement.

<table>
<thead>
<tr>
<th>Challenges in Credit Risk Management</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There are difficulties in confirming the credit history of borrowers’ so as to reduce the potential of bad debts.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. There are challenges in gaining knowledge about the consumers’ creditworthiness due to the stiff competition in the market.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. The bank does not know how to cope with credit risks information</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. There is lack of risk management techniques that can cut insolvent debtors off from credit</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. It is hard to assess the quality of non-local credit seekers and lend to them safely</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Lack of credit information increases the default rate where funds are not paid back on time or at all.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Credit information leads to lower default and interest rates and to more lending to borrowers</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. Lack of credit risks information about borrowers’ debt exposes the bank to moral hazard derived from the borrowers’ ability to borrow from multiple lenders</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. The bank risk management techniques takes place in an unexpected manner</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. Management of the bank credit risks is faced with stringent regulations</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. The market lacks informational intermediaries to provide the necessary information and thereby expose the banks to potential defaulters</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>12. Creditworthiness may not be precise to reduce to reduce the client’s riskiness and the share of bad loans in bank’s credit portfolio</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>13. Risk management and audit processes do not detect inappropriate or unethical activity of inadequate systems</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

14. What other factors not mentioned above are difficulties experienced in credit card risk management?
Section D: Strategic Response to Risk Management

Please tick the extent to which you agree with the following statements by using a scale of 1 to 4 where 1 = strongly disagree and 4 = strongly agree. Circle (O) which best describes your opinion of the statement.

<table>
<thead>
<tr>
<th>Strategic Response to Risk Management</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Effective risk reduction involves creating clear and trustworthy credit card information.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2. The customers and the management should regularly communicate with the card issuers to monitor the card transactions</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>3. Credit cards should never be kept in clients wallets</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4. Customers should be advised against providing their credit card number or other personal information to untrustworthy institution or merchants</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>5. Banks should instill a strong corporate culture to minimize credit card risks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>6. Customers have the responsibility to notify the bank immediately they change their address.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>7. Fraudulent use of customer’s card should be reported to the bank immediately.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>8. In case of credit card loss, the issuers should be informed immediately.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>9. The bank should have guidelines or policies for credit card risk management</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>10. There should be regular internal audit of fraud controls and reviews of fraud control procedures to minimize credit card risks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. There should be periodic internal audits of IT, security to prevent credit card risks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

12. What other factors not mentioned above relate to effective credit card risk management?

THANK YOU FOR YOUR RESPONSE
APPENDIX C: Correlation of Credit Card Risk and Challenges of Risk Management

<table>
<thead>
<tr>
<th></th>
<th>Hard to assess non-local credit seekers</th>
<th>Market lacks informational intermediaries</th>
<th>Creditworthiness may not be precise to reduce riskiness</th>
<th>Risk management do not detect inappropriate activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>High incidence of credit card theft</td>
<td>Pearson Correlation: -.280**&lt;br&gt;Sig. (2-tailed): .010</td>
<td>Pearson Correlation: -.077&lt;br&gt;Sig. (2-tailed): .487</td>
<td>Pearson Correlation: .069&lt;br&gt;Sig. (2-tailed): .534</td>
<td>Pearson Correlation: -.096&lt;br&gt;Sig. (2-tailed): .386</td>
</tr>
<tr>
<td>Inadequate monitoring on credit card transactions</td>
<td>Pearson Correlation: -.425**&lt;br&gt;Sig. (2-tailed): .000</td>
<td>Pearson Correlation: -.157&lt;br&gt;Sig. (2-tailed): .159</td>
<td>Pearson Correlation: -.145&lt;br&gt;Sig. (2-tailed): .193</td>
<td>Pearson Correlation: -.025&lt;br&gt;Sig. (2-tailed): .826</td>
</tr>
<tr>
<td>Exposure to deceptive e-mails</td>
<td>Pearson Correlation: .165&lt;br&gt;Sig. (2-tailed): .133</td>
<td>Pearson Correlation: .150&lt;br&gt;Sig. (2-tailed): .172</td>
<td>Pearson Correlation: .287**&lt;br&gt;Sig. (2-tailed): .008</td>
<td>Pearson Correlation: .359**&lt;br&gt;Sig. (2-tailed): .001</td>
</tr>
<tr>
<td>Charges on credit card not properly identified</td>
<td>Pearson Correlation: -.247*&lt;br&gt;Sig. (2-tailed): .024</td>
<td>Pearson Correlation: -.356**&lt;br&gt;Sig. (2-tailed): .001</td>
<td>Pearson Correlation: -.098&lt;br&gt;Sig. (2-tailed): .377</td>
<td>Pearson Correlation: -.205&lt;br&gt;Sig. (2-tailed): .062</td>
</tr>
<tr>
<td>Difficulties in confirming the credit history of borrowers'</td>
<td>Pearson Correlation: -.140&lt;br&gt;Sig. (2-tailed): .204</td>
<td>Pearson Correlation: -.155&lt;br&gt;Sig. (2-tailed): .160</td>
<td>Pearson Correlation: -.312**&lt;br&gt;Sig. (2-tailed): .004</td>
<td>Pearson Correlation: -.451**&lt;br&gt;Sig. (2-tailed): .000</td>
</tr>
<tr>
<td>Challenges in gaining knowledge about consumers' creditworthiness</td>
<td>Pearson Correlation: -.352**&lt;br&gt;Sig. (2-tailed): .001</td>
<td>Pearson Correlation: -.271*&lt;br&gt;Sig. (2-tailed): .013</td>
<td>Pearson Correlation: -.314**&lt;br&gt;Sig. (2-tailed): .004</td>
<td>Pearson Correlation: -.466**&lt;br&gt;Sig. (2-tailed): .000</td>
</tr>
<tr>
<td>Bank cannot cope with credit risks information</td>
<td>Pearson Correlation: -.425**&lt;br&gt;Sig. (2-tailed): .000</td>
<td>Pearson Correlation: -.326**&lt;br&gt;Sig. (2-tailed): .002</td>
<td>Pearson Correlation: -.384**&lt;br&gt;Sig. (2-tailed): .000</td>
<td>Pearson Correlation: -.483**&lt;br&gt;Sig. (2-tailed): .000</td>
</tr>
</tbody>
</table>
### APPENDIX D: Correlation of Challenges and Strategic Response to Risk Management

<table>
<thead>
<tr>
<th>Challenges in confirming the credit history of borrowers'</th>
<th>Failure to detect unethical activity</th>
<th>Risk reduction involves creating trustworthy credit card information</th>
<th>Customers advised against providing their credit card number</th>
<th>Strong corporate culture to minimize credit card risks</th>
<th>Credit card loss, should be informed immediately</th>
<th>Bank should have guidelines for credit card risk management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.188</td>
<td>.001</td>
<td>.370</td>
<td>.071</td>
<td>.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.177</td>
<td>.000</td>
<td>.175</td>
<td>.476</td>
<td>.004</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.117</td>
<td>.001</td>
<td>.038</td>
<td>.187</td>
<td>.002</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.569</td>
<td>.000</td>
<td>.226</td>
<td>.003</td>
<td>.069</td>
<td>.249</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.746</td>
<td>.407</td>
<td>.001</td>
<td>.000</td>
<td>.006</td>
<td>.001</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.799</td>
<td>.175</td>
<td>.206</td>
<td>.082</td>
<td>.004</td>
<td>.084</td>
</tr>
</tbody>
</table>
### APPENDIX D: Correlation of Challenges and Strategic Response to Risk Management

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failures to detect unethical activity</td>
<td>-.451**</td>
<td>.000</td>
<td>-.145</td>
<td>.188</td>
<td>.001</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Risk reduction involves creating trustworthy credit card information</td>
<td>-.145</td>
<td>.188</td>
<td>.001</td>
<td>.017</td>
<td>.001</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Customers advised against providing their credit card number</td>
<td>.370**</td>
<td>.001</td>
<td>.001</td>
<td>.017</td>
<td>.001</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Strong corporate culture to minimize credit card risks</td>
<td>-.099</td>
<td>.746</td>
<td>.370</td>
<td>.198</td>
<td>.071</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Credit card loss, should be informed immediately</td>
<td>.198</td>
<td>.370</td>
<td>.198</td>
<td>.071</td>
<td>.071</td>
<td>.370</td>
<td>.198</td>
<td>.071</td>
<td>.071</td>
<td>.071</td>
</tr>
<tr>
<td>Bank should have guidelines for credit card risk management</td>
<td>.627**</td>
<td>.370</td>
<td>.198</td>
<td>.071</td>
<td>.071</td>
<td>.370</td>
<td>.198</td>
<td>.071</td>
<td>.071</td>
<td>.071</td>
</tr>
<tr>
<td>Difficulties in confirming the credit history of borrowers</td>
<td>-.466**</td>
<td>.000</td>
<td>-.149</td>
<td>.177</td>
<td>.000</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Challenges in gaining knowledge about the consumers' creditworthiness</td>
<td>-.466**</td>
<td>.000</td>
<td>-.149</td>
<td>.177</td>
<td>.000</td>
<td>-.149</td>
<td>.447**</td>
<td>.000</td>
<td>.017</td>
<td>.147</td>
</tr>
<tr>
<td>Bank does not know how to cope with credit risks information</td>
<td>-.483**</td>
<td>.000</td>
<td>-.172</td>
<td>.117</td>
<td>.000</td>
<td>-.172</td>
<td>.117</td>
<td>.000</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Lack of risk management techniques</td>
<td>-.063</td>
<td>.569</td>
<td>.597**</td>
<td>.000</td>
<td>.226</td>
<td>-.320**</td>
<td>.201</td>
<td>.069</td>
<td>.249</td>
<td></td>
</tr>
<tr>
<td>Lack of credit information</td>
<td>-.036</td>
<td>.746</td>
<td>.092</td>
<td>.407</td>
<td>.001</td>
<td>-.487**</td>
<td>-.298**</td>
<td>-.342**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit information leads to low default and interest rates</td>
<td>.028</td>
<td>.799</td>
<td>.149</td>
<td>.175</td>
<td>.001</td>
<td>-.139</td>
<td>-.191</td>
<td>.313**</td>
<td>.189</td>
<td></td>
</tr>
</tbody>
</table>