

The Relationship between Credit Reference Bureau Services and Performance of the Commercial Banks in Kenya

A survey of commercial banks in Meru County

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Abstract: The purpose of this study was to establish the relationship between credit reference bureau services and the general performance of commercial banks in Meru County. Lending in the banking industry has been proven to be a risky endeavor especially in the developing world where there are weak legal and judicial systems. Information about the credibility level of potential borrowers is not readily available and most of the potential borrowers come from poor backgrounds; many of whom have never borrowed from commercial banks before and are unable to pledge collateral to guarantee payment of the loans they want to borrow. Sharing credit information gives people the opportunity to offer affordable credit access as the search costs and risk premiums are significantly lowered. This study sought to establish the relationship between credit reference bureau services and performance of the commercial banks in Kenya. Banks' performance is compared against risk management, development of intellectual capital, increased business and information symmetry. The study adopted a descriptive research design. The design was suitable to answer the questions concerning relationship between credit reference bureau services and the performance of commercial banks in Meru County. The study was a census and focusing on all the eighteen banks operating in Meru County. Self-administered questionnaires were employed to collect data. The data was processed and analyzed using statistical package for social sciences (SPSS). Descriptive statistics and multiple regression analyses were used to examine the relationship between credit reference bureau services and performance of commercial banks in Meru County. The results are presented in summary reports, charts and tables. The study established that there is a significant relationship between improved risk management and performance of commercial banks in Meru County. Preventing losses by ensuring precautionary measures are taken is a key driver of performance and one of the vital elements in risk reduction. It was further established that there was a significant relationship between development of information capital and performance of commercial banks in Meru County. Information capital resources such as customer relations and human capital are imperative in the success of commercial banks and significant in sustaining a competitive advantage and creation of value in an organization. However, the study did not establish a significant relationship between increased business as well as information symmetry and performance of commercial banks in Meru County. It was hence concluded that improved risk management and development of information capital were significantly associated with performance of commercial banks in Meru County. The study recommends that the management of commercial banks should continuously identify, evaluate, monitor and mitigate all material risks and also do capital adequacy assessment with regard to their risk profile. Besides, the management of commercial banks must heavily invest in its employees to give it a competitive edge, since a bank is a knowledge-based firm where resources are intellectual in nature and non-tangible. It is suggested that the study be extended to other financial institutions to assess whether different findings may be reached regarding relationship between credit reference bureau services and the performance.

Introduction

1.1 Background to the Study

On a global scale, competitions are stiffer particularly in commercial banks that strive to maintain a significant growth trajectory with regard to profitability. Commercial banks and other financial institutions have been compelled to decrease their credit appraisal standard in a strategic manner so as to enable clients to borrow

more. In the current volatility of the economy, the number of clients who provide tangible collateral to secure their loans has significantly decreased leading to a build-up in the number of non-performing loans forcing banks and other financial institutions to resort to income oriented and alternative cash flow streams. The stiff competition among commercial banks and other financial institutions coupled with the moral hazard of serial defaulters led to the urgent development of credible credit information sharing systems (Odiwuor, 2016). History records indicate that the first countries to establish public credit information registries were France in the year 1946 and Germany in 1934. In the mid-1960s, other strong economies in Europe such as; Italy, Spain, Belgium, and Sweden adopted credit information sharing systems. Western African countries that were predominantly colonized by France in 1962 came up with the West African Monetary Union in 1962. South American countries such as Brazil and Argentina made the move to enhance banking supervision which was triggered by the financial crisis in 1990 (Mugwe & Oliweny, 2016). Credit markets represent asymmetric information challenges. Lenders have neither prior knowledge of the client's past behavior nor the characteristics or intentions of clients applying for credit (Kerage & Jagongo, 2014).

1.1.1 Credit Reference Bureaus

Most commercial banks face the risk of nonperforming loans and the larger the loans are, the more the risk of exposure. To overcome this challenge, the Credit Reference Bureau (CRB) was hatched in order for banks and other financial institutions to monitor their borrowers' behavior. By banks determining how credit worthy a borrower is, there has been a huge reduction on loan default risk. CRB has: aided banks globally in elimination of corrupt borrowers, it has assisted in proper sharing of information in regard to defaulters among banks, and in the provision of commercial professional credit reference particularly as pertains foreign investors. CRB compliments the key role carried out by both banks and other financial institutions in provision of efficient financial services by aiding lenders make credit decisions that are quicker and more accurate (Githua, Musiega, Juma, & Alala, 2013).

A Credit Reference Bureau (CRB) is "a company licensed by the Central Bank of Kenya to collate and collect credit information on individuals and companies from different sources and provide that information in form of a credit report upon the request of a credit provider" (Githua, Musiega, Juma, & Alala, 2013). Credit providers can only request a report on a borrower who has actually applied for a loan from credit reference bureau agencies. Currently, there are three licensed CRBs in Kenya including Credit info CRB, Metropol CRB and Transunion Africa CRB. Credit reference bureau services have helped commercial banks to stem out malpractices in their industry since potential borrowers whose credit assessment using the information from the credit reference bureau agencies reveal that they have been involved in other malpractices, are subjected to strict terms and conditions. This is why the credit reference bureau regulations were instituted by the Central Bank of Kenya (Mwangi, 2012). The credit reference bureau services are expected to reduce the levels of non-performing loans in the commercial banking sector of Kenya while increasing the loan books of commercial banks in the country.

1.1.2 Performance

The general performance of banks highly depends on credit information sharing as way of increasing transparency among commercial and aiding banks to lend prudently subsequently, decreasing the bank's risk level and ensuring decrease in the number of defaulters, and also assists in reduction of borrowing costs. For the bank to remain competitive, its overall performance needs to progress. Competitiveness relates to how effectively an organization meets the wants and needs of its customers in the marketplace relative to other organizations that offer similar products or services. The emergence of Credit Reference Bureau services in Kenya has significantly revolutionized lending and contributed to the improved overall performance of many commercial banks as well as other financial institutions (Mwangi, 2013).

Performance of commercial banks is affected by globalization which influences changing customer and investor demands are some of the characteristics of the current economic environment. In such a competitive and dynamic environment, a commercial bank and performance requires improved performance, innovative products and processes as well as improved quality and productivity to keep afloat (Marieke & Marieke, 2009). Overall, performance of commercial banks is also significantly influenced by employee performance and consequent customer satisfaction. Usually, performance is evaluated in terms of the output of a worker in a particular period of time (Jiang, et al., 2012). Often, the performance of a given employee is assessed with input with regard to workers who are doing similar work. Since much of the success of any firm heavily depends on

the performance of its workforce, employee performance is a very vital consideration factor for all commercial banks. Workforce performance, a related concept has been defined as a number of services and goods that can be produced by an employee in a certain amount of time. It is considered as the measure of a firm or an organization, a process, an entire industry or even a nation (Jackson & Victor, 2011).

1.1.3 Commercial Banks

Commercial banks play a significant role in countries around the globe as they serve as the connection between the economy and the households. Bank's fundamental role is to ensure that there is significant growth in the growth and development of the economy. Numerous researches has been carried out to show that the efficiency of financial intermediation affects economic growth and other studies indicate that bank insolvency results in systemic crisis which in turn has adverse effects on the economy. Thus, the banking industry is an invaluable asset to the economy and individuals as a whole (Mwangi, 2013).

1.1.4 Risk Management

Credit Reference Bureaus (CRBs) aid in improving risk management which in turn ensures better performance in commercial banks. Employees in commercial bank through vet potential clients before offering a loan and explicitly and clearly explain terms and conditions. Risks are not viewed as threats or adverse financial effects but as probable opportunities. Risk management has changed its focus from all risks to serious risks. By sharing critical information, commercial banks reduce the risk of having numerous nonperforming loans. CRBs have ensured that commercial banks identify, measure, monitor, manage risk exposures. Preventing losses by ensuring precautionary measures are taken is the key driver of profitability and one of the vital elements in risk reduction (Al-Musali & Ismail, 2016). Risk management is achieved by outlining the bank's objectives, strategy, constraints and goals and success criteria are utilized to determine the results of non-achievement. At this stage, the bank will analyze the key performance indicators with identifies risks and risk mitigation plans (Scarborough, 2011).

1.1.5 Information Capital

Development of information capital is critical for commercial banks and one of the most important task CRBs do. Lenders have neither the knowledge nor know the characteristics or intentions of people who apply for credit. Failure to offer accurate information on the credit applicant's past and present financial capability creates a predicament as lenders cannot know the credit worthiness of the applicant (Omasete, 2012). When information sharing is effected in an efficient manner, commercial banks witness increased business and better financial performance as well as the bank's overall performance. CRBs are tasked with ensuring flawless information is shared and fluidly used by commercial banks to aid in improving performance, reducing the number of non-performing loans and ultimately making banks profitable (Mutua, 2010)

1.1.6 Enhanced Information Symmetry

According to Omasete (2012), credit markets often present problems with regard to asymmetric information. Due to lack or limited knowledge as pertains to credit applicants, lenders make credit decisions based on characteristics of an average borrower as opposed to making decisions based on characteristics of an individual borrower. CRBs hence, provide information regarding borrowers' past and present behavior across all financial institutions thus, reducing information asymmetry. CRBs play a crucial role in monitoring a borrower by provision of information to commercial banks in order to assess the borrower's creditworthiness. Credit bureaus were established as an institutional solution to problems with regard to information asymmetries and moral hazard in credit markets. Enhanced information symmetry ensures remarkable performance of commercial banks (Maiyo, 2009).

A study carried out in Canada on Credit Information Sharing mechanism indicated that it was an effective tool in minimizing the issue of information symmetry in the banking industry. The mechanism was also meant to facilitate information capital development so as to have an increase of information symmetry which in turn aids in credit costs decline. Information symmetry between a borrower and the bank has been noted as one of the primary contributors to high credit costs. However, with credit information sharing mechanism, there is more information available to the banks putting them in a better position to avoid defaulters and nonperforming loans (Dankwah, 2012).

1.1.7 Increased Business

According to Gaitho (2013), the existence of credit reference services is associated with increased lending volume, growth of consumer lending, improved access to financing and a more stable commercial banking sector. A study by Kithinji (2010) on credit risk management and profitability of commercial banks in Kenya revealed that in developing nations, it has been difficult to have accurate information on the financial ability of prospective borrowers and even more difficult to have accurate information on their credit history. This makes it extremely difficult for the lenders to assess the credit worthiness of potential borrowers and their ability to pay the loans. This problem has caused lenders to experience high levels of non-performing loans. However, in nations such as Kenya, which introduced credit reference services in 2009, CRB regulations have been seen to impact positively on the commercial banking sector by facilitating more effective credit assessment of potential borrowers hence, greatly limiting the risks of non-performing loans (Kithinji, 2010).

1.1.8 CRBs and Financial Performance

In a study carried out in South Africa, it was established that the linkage between access to credit and economic development of a nation is clear. Credit reference bureau services create an opportunity for a wider cross-section of the population to access credit, particularly those with no access to tangible collateral. The small and medium enterprises sector is an important driver to the industrial development of South Africa. A functioning credit reference system is known to reduce transactions cost in lending to the small and medium enterprise (SME) which will have the effect of making credit more available while helping to reduce price not only through reduced costs but also enhanced competition (Schenone, 2010).

According to Githua, Musiega, Juma, & Alala (2013), Kenya has seen a steady economic growth due to the Central Bank regulatory framework ensuring progression in the banking sector. Due to significant crisis in the 1980s and 1990s, the banking sector plummeted and this was accredited to corporate governance being weak, high levels of NPLs (Nonperforming Loans), and capitalization. Most commercial banks collapsed in the 1990s however, the most notable impact was witnessed in 1992, where Kenya experienced a major crisis in systematic banking. The Kenyan government published an article on employment and wealth creation in 2003 known as the Economic Recovery Strategy (ERS). The article outlined the difficulties that were being experienced by commercial banks and these included: high ratios of nonperforming loans, inadequate quantities of credit and credit assessment systems of poor quality. Kenya has however made notable progression in improving both efficiency and stability of the banking system and one of the major factors that has led to steady growth is the operationalization of the credit reference bureau which was a regulation act of 2008 (Githua, Musiega, Juma, & Alala, 2013).

Kenya had failed to provide proper access of banking services to majority of the population despite most of their savings coming from relatively small depositors however, lending was shimmied to serve major public enterprises and large private companies. The Kenyan government thus intervened and instituted CRB regulations which were effected in February of 2009. These regulations helped the banking sector extend loans to individuals who were growing small and medium business enterprises as now it was mandatory for all commercial licensed banks to share information about their non-performing loans through credit reference bureau agencies that were licensed by the Central Bank of Kenya (Gaitho, 2013). The role of these agencies was to collect, organize and also process data that was gathered from approved information sources and subsequently, generate credit reports on individual borrowers to be used by lenders such as commercial banks (Dankwah, 2012). Credit reference bureau as asserted by Gaitho (2013), is a concept that has brought about efficiency, stability, and better access to banking services.

Prior to the introduction of credit reference bureau services, many borrowers used to borrow from one commercial bank or financial institution to the other without being identified. This led to many financial institutions experiencing immense losses as a result of non-performing loans. Through the use of credit reference bureau services, the banks are in a position to obtain detailed information of a person's credit history, including information on their identity, credit accounts and loans, bankruptcies and late payments and recent inquiries (Waweru & Kalani, 2009). Other information shared include: proven frauds and forgeries, cheque kiting, false declarations and statements, receiverships, bankruptcies and liquidations, credit default and late payments, use of false securities, and misapplication of borrowed funds

Credit information sharing in the financial sector in commercial banks in Meru is highly facilitated by CRBs. According to the Commercial Bank of Kenya (CBK), the introduction of CRBs was to facilitate sharing of specifically negative credit information in terms of non-performing loans. Every bank lender in Microfinance

institutions and Saccos were also required to participate in credit information sharing. According to Kigige (2014), limited information exists on how information sharing has affected the performance of commercial banks in Meru County. According to a study carried out by Kigige (2014), commercial banks in Meru tend to subconsciously charge high risk premiums on their unsecured loans which has deterred numerous potential clients who opt for other financial institutions such as Saccos.

Recent theoretical research by Kwambai & Wandera (2013) suggests that credit reference bureau services have a threefold effect on lenders. One is improving banks' knowledge about applicants' characteristics hence, permitting more accurate prediction of repayment probability, second is reducing the informational rents that banks could otherwise extract from their customer and thirdly acting as a borrower discipline device whereby, every borrower knows that if he defaults, his/her reputation with all other potential lenders is ruined, cutting him off from credit or making it much more expensive.

1.2 Statement of the Problem

In the late 1980s and early 90s, Kenya witnessed a collapse in the banking system and this was attributed to: significant differences in set regulations intended to govern financial intermediaries both banking and non-bank, failure to carry-out mandatory surveillance role and implement banking regulations delegated by the Central Bank due to poor supervisory capacities, poor policies initiated by the government that led to an accumulation of non-performing loans, an apparent lack of self-governance, and failure of banks complying to the regulatory requirements as mandated by the 1989 Banking act (Al-Musali & Ismail, 2016).

However, the banking institution was liberated in 1992 after extreme competition from multiple commercial banks. Though the banking sector was thriving and many banks were getting established, banks were still experiencing high levels of non-performing loans until the credit reference bureau regulations were issued in 2009 (Kithinji, 2010). In July 2010, credit information was submitted to licensed credit reference bureaus by all the commercial banks in Kenya. According to a study by Wanjiru (2013) on the role of CRB on credit access in Kenya, progress had been made as banks had accessed 1, 306, 439 credit reports by August 2010 from Licensed CRBs. Credit information sharing gives people the opportunity to offer affordable credit access as the search costs and risk premiums are significantly lowered. However, Central Bank of Kenya carried a research that intended to find out the ineffectiveness of CRB credit reports to commercial banks, as the credit information they offer is inaccurate thus, CRBs have gained bad publicity (Wanjiru, 2013).

CRBs in Kenya which include; Transunion, Creditinfo, and Metropol have had challenges and complaints made against them as they are failing in offering their primary service, which is provision of quality credit information to commercial banks. Another major challenge is that cross information sharing among CRBs is not legal which in turn limits the bank's rights to access quality credit information reports. The researcher also aims to investigate how good credit rating is being adopted as collateral as an alternative to tangible physical assets. Hence, this research seeks to fill this gap by examining how credit information sharing has influenced Credit Reference Bureaus (CRBs) on the banking sector in Meru and to quantify benefits of credit information sharing in the Kenyan credit market and the role Credit Reference Bureaus play in the Meru banking sector.

1.3 Research Objectives

1.3.1 General Objective

The main aim of the study was to establish the relationship between credit reference bureau services and the performance of commercial banks in Meru County.

1.3.2 Specific Objectives

The specific objectives of the study were:

1. To determine the relationship between improved risk management and performance of commercial banks in Meru County.
2. To establish the relationship between development of information capital and performance of commercial banks in Meru County.
3. To examine the relationship between increased business in the banking sector and the performance of commercial banks in Meru County.
4. To determine how the enhanced information symmetry has helped on the performance of commercial banks in Meru County.

1.4 Research Hypothesis

- H₁ There is a significant positive relationship between improved risk management and performance of commercial banks in Meru County.
- H₂ There is a significant positive relationship between development of Information capital and performance of commercial banks in Meru County
- H₃ There is a significant positive relationship between increased business in the banking sector and performance of commercial banks in Meru County.
- H₄ There is a significant positive relationship between enhanced information symmetry and performance of commercial banks in Meru County.

1.5 Significance of the Study

The study may be a great contribution to the existing body of knowledge especially for researchers who may use the study to further their research in this area by reviewing the literature and establishing the existing gaps. This study may also be of great importance to stakeholders in the financial sector. Researchers and scholars may use this study as a point of reference when carrying out other studies.

1.6 Scope of the Study

The study focussed on all the heads of departments in the 18 commercial banks operating in Meru County as at March 2017. Each bank had three main departments namely; operations, sales and management department. Hence, the study focused on the 54 heads of departments. It concentrated on the the relationship between credit reference bureau services and the performance of commercial banks.

1.7 Limitations of the Study

Limitations are conditions which are not within the control of the researcher, hence can restrict the conclusions of the study and applications (Best and Kahn, 2003). One limitation of this study is the fact that the independent variables of the study were measured using an opinion based scale which may be subjective in the event the respondent does not truly assess the position of their bank.

1.8 Assumptions of the study

The assumptions of the study were: the sample chosen represents the population, the respondents answered the questions correctly and truly, and the data collection instrument had validity and measured the desired constructs.

Literature Review

2.1 Introduction

This chapter details study literature related to the relationship between credit reference bureau services and the performance of commercial banks. It also outlines the theoretical frameworks and conceptual framework of the study.

2.2 Theoretical Review

A theory is defined as a set of interrelated concepts, definitions, and propositions that present a systematic view of phenomena by specifying relations among variables with the purpose of explaining or predicting the phenomena (Bull, 1991). The study will be based on Adverse Selection Theory and Moral Hazard Theory.

2.2.1 Adverse Selection Theory

Advance selection is a term that is used in economics to refer to a process in which outcomes that are undesired occur when sellers and buyers have access to imperfect or different information, also known as asymmetric information (Guerrieri & Shimer, 2014). In a more general sense, the adverse selection process arises when a buyer is not able to observe the characteristics of the seller or the circumstances under which they operate in. In the context of financial transactions such as those carried out in banks, adverse selection usually occurs when bad credit risks are created by potential creditors of the bank due to the bank lacking adequate and accurate information about the credit applicants.

The adverse selection theory is formed on the basis of two assumptions, the first one is that lenders cannot be able to distinguish between potential borrowers of different degrees of risk and the second one is that loans contracts are subjects to being limited. The theory suggests that information sharing about potential borrower has the ability to reduce adverse selection or the selection of inappropriate potential borrowers by availing useful information about credit applicants to the banks (Cohen & Siegelman, 2010). Each banking institution usually has private information about credit applicants but this information cannot be relied on in the assessment of the credit-worthiness of credit applicants since it is provided by the applicants themselves who may lie about their credit history so that they can be given a loan by a bank.

The adverse selection theory is restricted to the involuntary default principle which assumes that borrowers usually repay loans only when they have the means to do so. In a situation where there are simple debt contracts between lenders and risk-neutral borrowers, then the presence of limited liability of the borrowers conveys a preference for risk among borrowers and hence, leads to the aversion of risk by the lenders (Lewis, 2011). This is because a limited liability of borrowers suggests that lenders are the ones who bear all the downside risks. Contrastingly, all returns above the loan repayment obligation accrue to borrowers. Increasing interest rates then have an impact on the profitability of low-risk borrowers excessively, making them drop out of the application pool. This consequently results in an adverse compositional effect of higher interest rates which increases the average riskiness of the applicant pool.

The adverse selection problem implies that lending institutions cannot be able to distinguish unfit borrowers from fit borrowers subsequently, charge a normal interest rate for the two groups reflecting pooled experience (Johnson, Schneider & Waldman, 2010). If the normal rate is set to be higher than what the worthy borrowers deserve, this will force some credit borrowers outside the borrowing market. Consequently, the banks begin to charge even higher interest rates to the remaining borrower. Sharing credit information enabled lending institutions to have the ability to distinguish unfit borrowers from good borrowers in the market. Adequate access to lender information enables lending institutions to measure the borrower risk of the potential borrowers more accurately hence, they are able to set loan terms and conditions appropriately (Martin, 2009).

Commercial banks however, restrain their own future ability to obtain informational rents if they commit themselves to exchange information about the types of borrowers. This leaves a larger portion of the surplus entrepreneurs. Thus, causes borrowers to put in more effort in their projects hence, facilitating a lower default probability, relatively lower interest rates and also a larger lending relative to the system without information sharing (Maiyo, 2009). For commercial banks to thrive, increased business by improving projects and improved risk management aids in improving their financial performance.

2.2.2 Moral Hazard Theory

The term moral hazard as used in this theory refers to the risk that a party to a transaction has not entered into the contract in good faith by providing misleading information about its credit capacity, liabilities or assets or alternatively the party may take unusual risks in a desperate attempt to get profit before the contract expires (Stone, 2011).

In the recent global financial crisis, there were a lot of moral hazards taking place. Economists present the argument that this inefficiency is inherent in the moral hazard theory. The moral hazard theory implies that a borrower has the incentive to default except there are consequences for his or her application for credit. This causes the lenders to have difficulty in assessing the level of creditworthiness of the borrowers in terms of the wealth they have accumulated by the date on which the debt that they borrowed must be repaid but not at the moment of application. If lending institutions cannot be able to assess the wealth of their borrowers, then the latter are more likely to default on the borrowing. When lending institutions forestall this, they increase the interest rates eventually, leading to the breakdown of the market (Omasete, 2012).

Hoppe & Kusterer (2011) describe moral hazards as the problems that are associated with the inability of buyers to observe actions that are taken by the seller. Furthermore, it is challenging for the buyer of services to assess whether the actions of the seller were adequate and proper since it is quite difficult to judge the quality of service. Because of the exogenous factors, the service is irreversible while the outcome of the service is uncertain.

The difference between moral hazard and adverse selection problems is inherent in the lending activity. A moral hazard emanates from the lack of ability by the lending institution to observe the actions of the borrower that affect the probability of loan repayment (Skala, 2011). In this case, a borrower may have the encouragement to misapply funds for personal use or to undertake investment in projects that are not profitable only to increase

their stature or personal power. If the project does not succeed, then the lender will be the one who suffers the loss. This opportunistic behavior exhibited by the borrower can be considered as a moral hazard to the bank (Benson, Meirowitz & Ramsay, 2014). This increases the chances of the buyers actually repaying the loans. Nevertheless, such restrictions are very expensive to enforce and also to monitor hence, they are inevitably limited in their reach.

Padilla and Pagano (1997) invented a model in which loan performance depends on the quality of the borrower as well as on his or her effort. At the outset, each commercial bank possesses private information on the creditworthiness of a borrower. After giving a loan to a borrower, a bank has the ability to exploit the private information of that borrower by threatening to bar him or her from acquiring the loans in order to extract rents from him or her. Forestalling that the returns of his or her effort will be appropriated by the lender, the borrower has then a low incentive to put in effort ex-ante (McCaffrey, 2016). Consequently, this makes the loan repayment performance worse. Banks can be able to deal with the problem of incentive by committing ex-ante to sharing proprietary information about the creditworthiness of the borrowers with one another. Enhanced information symmetry and development of information capital is crucial for improved performance of commercial banks.

2.3 Empirical Review

2.3.1 Effect of improved risk management on performance of commercial banks

Effective risk management has been embraced as a significant cornerstone in management of banks by regulators, academics, and practitioners. Risk can be defined as uncertainty that is associated with a possible event or outcome. Risk management on the other hand is a process whereby an organization/firm identifies loss exposures it is facing and decides on the most appropriate method for treating the exposure (Omasete, 2012). When it comes to risk management, processes are prioritized depending on their urgency, with the utmost risk and utmost probability being handled first whereas, risks where losses are less, are handled later (Mwangi, 2013).

The researcher posits that by monitoring the bank's profitability levels, its performance can be measured. However, risk management has been solely focused on controlling and regulatory compliance, as opposed to improving performance (Omasete, 2012). Moreover, risk management in a firm influences the firm's profitability through advanced risk management practices. Running a risk analysis on financial statements has been highlighted as the most effective way of managing risk in the banking sector while strategic planning and budgeting are essential players in management of risk which affects the profitability of the bank (Mwangi, 2013).

Mwangi (2013) proceeds to note that risk management practices have often been identified as having a substantial effect on performance as compared to other practices. A risk management policy and the incorporation of risk management in coming up with organizational objectives was considered to be a fundamental risk management practice and as posited by Mwangi (2013), it directly affects the performance of a bank. Determinants of the bank performance may not necessarily be the primary factor in enhancing performance as banks can also improve their performance by focusing on development of effective risk management policies and integration of risk management in setting of feasible objectives (Mwangi, 2013).

Omasete (2012) further suggests that risk management can indeed be used as a tool for managers to be in a position to increase an organization's value by ensuring profitability of the organization is continuous. Risk management is a feasible economic reason why an organization's manager should look into expected profit and distribution of the organization returns around their target value thus, offering a rationale on the need to align the organization's objective functions so as to avoid risk. Some of the risks that are associated with introducing change in any organization include the risk of low success rate in change, risk of outages that were unplanned for, the risk of unauthorized changes, the risk of delays in projects and the risk of increase in emergency changes (Scarborough, 2011). There are various ways in which risk can be managed if the change process is identified as a project (Furon, 2006).

Furon (2006) proposes that the first step is risk initiating the management practice; in this case it is organizational learning for progressive management. The second step is instilling risk management as part of the organizational culture that is in line with the change management process that has been aforementioned. The third step is risk tailoring which is achieved by outlining organizational objectives, strategy, constraints and goals and success criteria is utilized to determine the results of non-achievement. At this stage, the organization will analyze the key performance indicators with identified risks and risk mitigation plans.

The next step is identifying the required resources for the implementation of the new practice; which is organizational learning. The components of this plan should include an overview of the risk management plan, standards, resources, consultant planning, schedules, training requirements, tasks, deliverables, approach and methodology, control plan and risk management plan. Installation of the management tools is then carried out through establishment of comprehensive database management systems in order to make compliance easy after introduction of the practice (Furon, 2006).

Effective risk management is crucial in the everyday operations of a bank or any finance company to avoid losses and eventual bankruptcy. Prevention of losses via precautionary measures is a crucial element in risk reduction and subsequently, the organization becomes profitable. Financial institutions are faced with significant risks and these include; credit risk, strategic risk, market risk, liquidity risk, compliance risk, information and communication risk, operational risk, reputational risk, technology risk and country and transfer risk. In compliance to the Basel Core Principles for Effective Banking Supervision, banking groups and banks require a comprehensive process in management of risks and this includes a senior management and a special board in place to oversee the process. Their main task is: identification, evaluation, monitoring and mitigation of all material risks and also to capital adequacy assessment with regard to their risk profile (Mwangi, 2013).

2.3.2 Development of Information capital on performance of commercial banks

Globalization has provided the contemporary businesses with diverse advantages, especially in facilitating business ventures in the international markets. In this new global economic era, Information capital resources such as customer relations and human capital have become imperative in the success factor of many businesses and significant in sustaining a competitive advantage and creation of value in an organization. The potential of an organization creating a competitive advantage and long-term value is based on the premise of efficient management of Information capital as compared to tangible assets. Knowledge-based industries include financial industries such as banks where resources are intellectual in nature and non-tangible (Al-Musali & Ismail, 2016).

Ahuja and Ahuja (2012) assert that effective utilization of information capital is more essential in accomplishment of success in the banking sector than other industries. Gaddam, Al Khathlan, & Malik (2009) posit that for a bank to deliver high quality services, it is dependent on the investments it has made in relation to information capital as its brand building, systems and processes and human resource. Despite physical capital being crucial for bank everyday operation, Information capital is what determines the quality of services offered to the customers hence, it becomes imperative that Information capital is managed by the bank (Gaddam, Al Khathlan, & Malik, 2009).

Considering the fact that banks' primary resources are both intangible and intellectual in nature and they participate in the most vital process which is creation of value, so that they can maintain a sustainable competitive advantage over their rivals, it is important for the researcher to investigate value creation efficiency in the banking industry and analyze how efficiently Information capital resources are managed. Information capital can be classified into three categories; structural capital, human capital, and relational capital. Information capital is the sole strategic asset in organizations and this plays a vital role in creating and maintaining organizations' competitive advantage and its performance (Al-Musali & Ismail, 2016).

2.3.3 Effect of Increased Business on the Performance of Commercial Banks

Banks have witnessed tremendous growth in business due to mobile, agency and electronic banking over the last few decades. Each facet of life is strongly influenced by an increase in information technology development. The banking industry, in a fast-paced global economy, operates in a competitive and complex environment where an increasingly unpredictable economic climate and numerous changing conditions characterize it. Information and communication technology is core of the global change curve in today's banking system (Maiyo, 2009).

Mobile banking has significantly contributed to increased business in the banking sector. Also referred to as M-banking, mobile banking is a term used to define banking transactions that are performed via mobile devices such as cellphones. It can also be defined as availing and provision of bank-related financial services aided by mobile telecommunication devices. Technological advancement has birthed M-Banking as well as online banking in the banking sector and this has revolutionized the means by which businesses are conducted by commercial banks. M-banking and online banking have provided an opportunity for financial organizations

to provide banking services through mobile phones and online as well as provision of easy access of financial services and an array of other benefits to the customer (Mutua, 2010).

Agency banking on the other hand, refers to a retail outlet which is contracted by either a mobile network operator or a financial institution to process transactions for clients. Instead of a teller in a bank carrying out the transaction, the employee at the retail outlet conducts all transactions which include; deposits, transfer of funds, withdrawals, paying of bills, inquiries regarding one's account balance, receipt of government benefits, and an employee getting paid directly by the employer. Performances significantly improved when banks delegate services via mobile banking and bank agencies. Most financial institutions have settled for these distribution channels and a surge in profitability has been evident over the past decade (Mutua, 2010).

2.3.4 Effect of enhanced information symmetry on the performance of commercial banks

Information symmetry is especially vital in the banking sector as the role of banks is to safeguard clients as well as helping them grow while extending credit to benefit the economically. Credit information sharing was introduced and officially formalized in 2007. As per the Credit Reference Bureau Regulations 2013, microfinance and commercial banks are mandated to share information on their entire loan books, meaning both up to date and late or overdue repayment details of a borrower are to be shared, this data is submitted electronically on a monthly basis (Mwangi, 2013).

Similarly, under the banking or credit bureau Act of 2008, banks and other money lending institutions are required to share information about borrowers with the credit bureau services on a monthly basis. The bureau then gets updates on any eventual or positive changes to the information as they occur. The credit reports by the bureau form a basis on which banks make their lending decisions. A credit bureau is usually characterized by the voluntary exchange of information among lending institutions regarding credit consumers (Adam, Collier & Njuguna, 2010).

The information that is shared among lenders can either be negative information which highlights past defaults or areas or alternatively it can be positive information which includes the current liabilities, employment, guarantees, income and current assets of the potential borrower (Gettee, 2012). For financial institutions that are regulated such as the commercial banks in Kenya, credit information that is shared includes the bio data and respective contact information of the credit applicant.

2.4 Conceptual Framework

A conceptual framework captures the relationship between the independent and dependent variables. The independent variables for the study were: improved risk management, development of information capital, increased business, and enhanced information symmetry, while performance of Commercial Banks is the dependent variable.

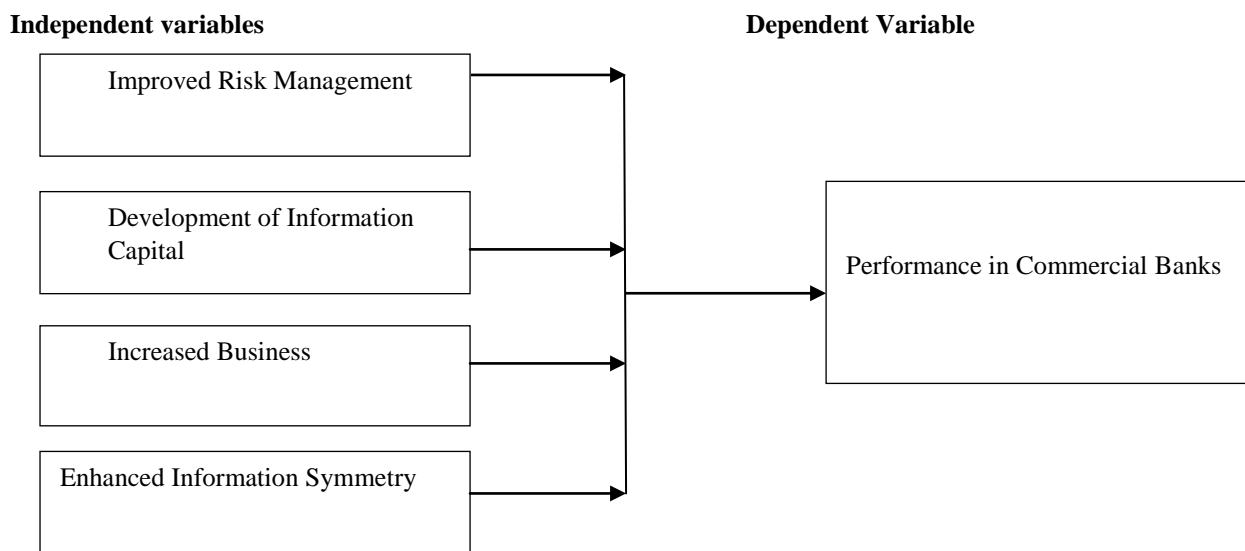


Figure 2.1: Conceptual framework

Credit Reference Bureaus play a critical role in improving risk management with regard to commercial banks and in turn boost their financial performance. Development of information capital is one of the main tasks CRBs carry out and this lowers risks associated with accumulation of nonperforming loans. When a borrower's creditworthiness is professionally assessed, it decreases the chances of lending money to a borrower who has neither the capability nor the will to pay the loan hence, commercial banks' performance increases so does the business. Enhanced information symmetry ensures lenders acquire accurate information regarding borrowers in an efficient and timely manner ultimately reducing the risk of nonperforming loans and increasing the bank's profitability as well as financial performance.

2.5 Operational Framework

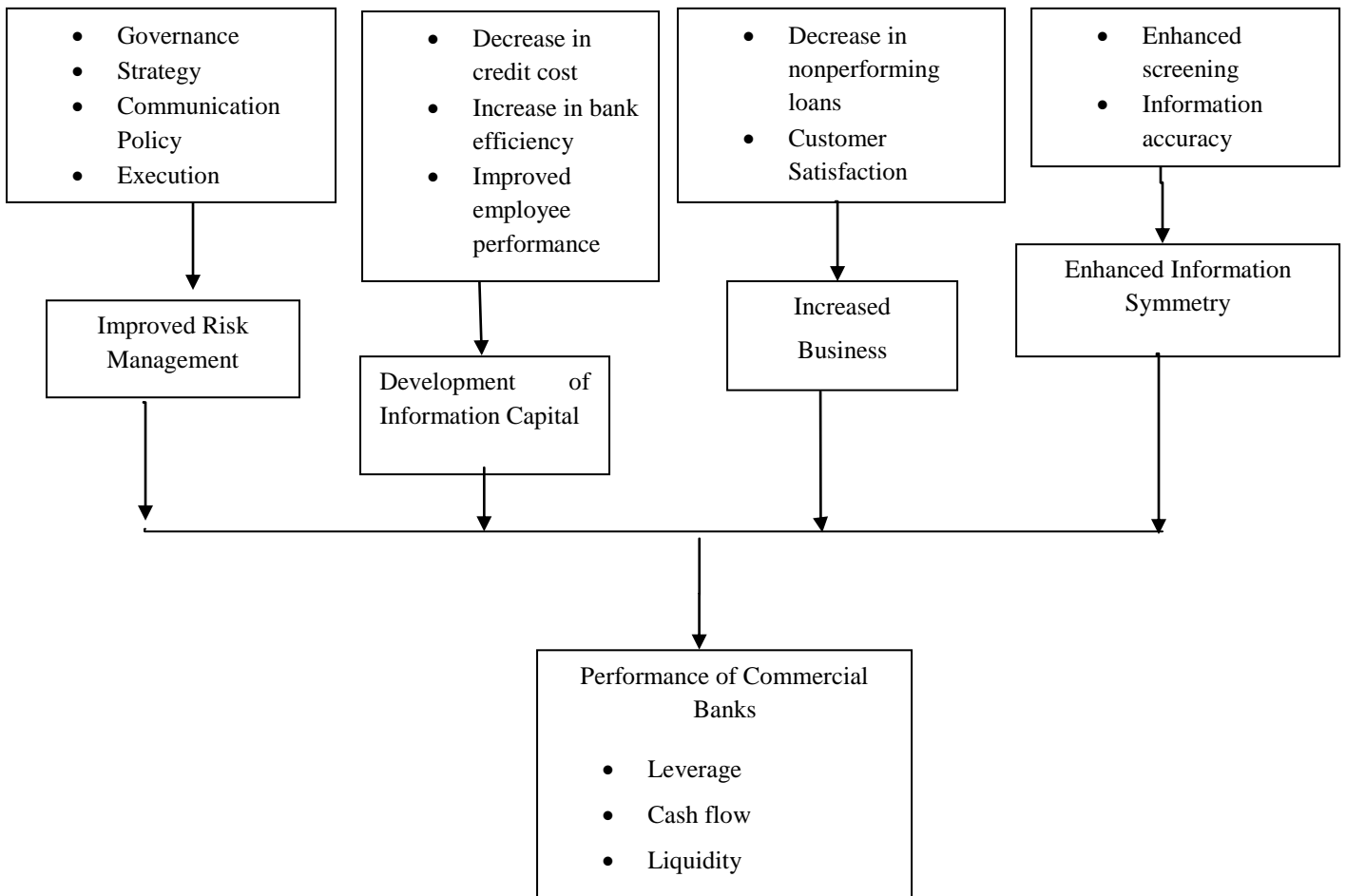


Figure 2.2: Operational framework

2.6 Chapter Summary

In summary, this chapter is based on the various functions of credit bureau Services and their effectiveness as pertains to customers and commercial banks. Some of the facets in this concept include improved risk management, increased business, enhanced business symmetry, and development of information capital. Placed in the correct context, these facets ensure excellent performance of commercial banks. From the information provided, it is evident that CRBs create an information pool where lenders can access timely and accurate credit information regarding borrowers which ultimately reduces accumulation of nonperforming loans and establishes a borrower's credit worthiness. Sharing credit information also aid in ensuring commercial banks operate efficiently and also credit cost are reduced It is for this reason that this study attempts to fill the

gap in regards to the relationship between credit reference bureau services and the performance of commercial banks.

Research Methodology

3.1 Introduction

This chapter details the procedures that were applied while conducting the research. This includes the study design, target population, sample design, data collection procedures and data analysis techniques.

3.2 Research Design

According to Cresswell (2014), research design is the research process that involves the overall assumptions of the research to the method of data collection and analysis. Ngechu (2004) affirms that research design is a plan showing how problems under investigation are solved. Orodho (2010) defines research design as the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in the procedure. Kombo and Tromp (2009) add that research design is the glue that holds all of the elements in a research project together. Kothari as quoted by Kombo and Tromp (2009) asserts that a research design constitutes the blue print for the collection, measurement and analysis of data.

The choice of the research design is subject to the study objectives so as to answer the research questions (Orotho, 2004). This study employed correlational research and descriptive research design. Correlational research involves collecting data in order to determine whether and to what degree a relationship exists between two or more quantifiable variables. The degree of relationship is expressed as a correlation coefficient (Mugenda & Mugenda, 2003). Correlational research is used when investigating the relationships between naturally occurring variables and with studying individual differences. This is contrary to experimental studies where variables are manipulated and controlled (Goodwin, 2005). In this study, the relationship between credit reference bureau services and performance of commercial banks is naturally occurring and can only be correlated for prediction purposes.

The purpose of descriptive research is to determine and report the way things are (Mugenda and Mugenda 2003). According to Kothari (2008) the main purpose of descriptive research is description of the state of affairs as it exists at present. This is supported by Orodho (2004) who argues that descriptive survey can be used when collecting information about people's attitudes, opinions, habits or any of the variety of education or social issues. Descriptive survey focuses on describing the variables that are present in a given situation and sometimes describes the relationships that exist in the variables (Johnson & Christensen, 2012).

This study sought to establish the relationship between credit reference bureau services and the performance of commercial banks in Meru County. Descriptive research is typically structured and precisely designed to measure the characteristic described in a research question. The object of descriptive research is to depict an accurate profile of persons, events or situations. It is necessary to have a clear picture of the phenomena on which the researcher wishes to collect data prior to the collection of the data. The main objective of this study was to examine the relationship between credit reference bureau services and the performance of commercial banks in Meru County. Banks' performance was compared against risk management, development of Information capital, increased business and information symmetry.

3.3 Target Population

A population is a group of individuals, objects or items from which samples are taken for measurement (Kombo & Tromp, 2009). It includes the entire set of individuals that is of interest to the researcher. It is the large group to which a researcher wants to generalize his or her sample results (Johnson & Christensen, 2012). Cooper & Schindler (2006) affirms that a population or universe for a study is any group of individuals or institutions which have one or more characteristics in common that are of interest to the researcher. The target population of this study comprised all the heads of departments in the 18 commercial banks operating in Meru County as at March 2017. Each bank had three main departments namely; operations, sales and management department. Hence, the study focused on the 54 officers as illustrated in table 3.1.

Table 3.1: *Computation of Target Population*

	Department officer per Bank	No. of Banks	Total
Management	1	18	18
Operations	1	18	18
Sales	1	18	18
Target Population	3	18	54

3.4 Sample Design

The study was a census, involving all the eighteen banks operating Meru County. In such an inquiry, all items of population are covered, hence no element of chance is left and highest accuracy is obtained (Kothari, 2008).

3.5 Research Instruments

Data was collected using self-administered structured questionnaires. A questionnaire is a research instrument that gathers data over a large area (Kombo and Tromp, 2006). Orodho (2004) asserts that questionnaires are commonly used instruments to collect important information about the population. Questionnaires were chosen because they take less time and energy and are less expensive. According to Mugenda and Mugenda (2003), questionnaires are ideal for survey study and are widely used to obtain information about current conditions and practices and to make enquiries about attitudes and opinions quickly and in precise form.

A questionnaire was developed to get information on credit reference bureau services and performance of commercial banks in Meru County. The questions were developed in reference to each study objective. Specifically, the questionnaire has six sections. Section one has questions on general information, section two, three, four and five contain questions on each the four independent variables while section six has questions on the dependent variable. Closed ended questions have been preferred over open-ended questions to enhance reliability and validity of data plus effective data analysis.

3.6 Pre-test Study

To reduce the shortcomings and ensure effectiveness of the questionnaires, a pre-test was conducted on a different sample of similar characteristics to the actual sample (Orodho, 2004). According to Mugenda and Mugenda (2003), the number of cases in the pre-test should range from 1% to 10%. One bank in neighboring Embu County was used for the pre-test which is approximately 6% of the sample size. The 6% was obtained through purposive sampling. This was done by the researcher himself. Piloting assisted the researcher to establish the validity and reliability of the instrument items. It also assisted in removing ambiguities of the questions and researcher bias as well as assessing the possible responses and the analysis of data to be collected.

3.7.1 Validity

Instrument validity is the degree to which an instrument measures what it is supposed to measure (Clive, 2004). It is the accuracy and meaningfulness of inferences which are based on the research results. In other words, validity is the degree to which results obtained from the analysis of the data actually represent the phenomena under study. If validity is high, the inferences made based on such data will be accurate and meaningful. Cresswell (2014) asserts that a behavioral measure is said to be valid if it measures what it has been designed to measure. Content validity or sampling validity was ensured by having a range of items that measured the four independent variables as well as the dependent variable. The pilot study results were also used to enhance content validity.

Borg and Gall (1989) points out that validity of an instrument is improved through expert judgment. The examiners during proposal presentation and the supervisors gave expert judgment which helped to improve content validity. The necessary adjustments were then be made on the instrument to enhance validity.

3.7.2 Reliability

Reliability is defined as the extent to which a questionnaire, test, observation or any measurement procedure, produces the same results on repeated trials (Orodho, 2004). For instance, the degree to which an

individual's response on a survey would stay the same or consistent over time is a sign of reliability. To establish reliability of the instruments pre-testing was done during the pilot study. Internal consistency reliability was used. This concerns the extent to which items on the test or instruments are measuring the same thing (Yin, 2013). The reliability of each item was determined. For example, items developed to measure constructs like information symmetry. Such items developed must be highly correlated to these constructs to assume high reliability of instruments. Internal consistency was estimated using the Cronbach's Coefficient Alpha (Mugenda and Mugenda, 2003). The Cronbach's Coefficient Alpha for all the four independent variables was greater than .8, higher than the acceptable cut-off of $r = .70$ (Siegle, 2011).

3.8 Data Collection Techniques

The researcher sought a research permit from the National Commission for Science Technology and Innovation (NACOSTI). This authorized him to carry out research in the Banks. The researcher also sought permission from the bank managers of the respective banks. The self-administered questionnaires were distributed to the respondents and picked at an agreed date.

3.9 Data Analysis

Burns (2000) defines data analysis as categorizing, manipulating and summarizing of data in order to obtain answers to research questions. The data collected was mainly quantitative. Data was coded appropriately as per the responses to different questions. The Statistical Package for Social Sciences (SPSS) was used as an aid to analyze the quantitative data. Both descriptive and inferential statistics were used.

Descriptive statistics and multiple linear regression models were used to analyze the data. Descriptive statistics were used to summarize the data and establish characteristics of the population. The multiple regression function will be expressed as $Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + e$ where;

Y = Dependent variable

X_1, X_2, X_3, X_4 = Independent variables

$\beta_1, \beta_2, \beta_3, \beta_4$ = Regression coefficients

β_0 = Intercept

e = error

3.9 Logistical and Ethical Considerations

The researcher sought introduction letter from Kenya Methodist University, Business department. Using this letter, he acquired a research permit from National commission for science technology and innovation (NACOSTI). The researcher also sought the consent of the bank managers of the respective banks. The self-administered questionnaires were distributed to the respondents and picked at an agreed date.

The ethical consideration entailed explaining to the respondents, the purpose of the study and methods of data collection. The respondents were assured that the information they gave would be treated with confidentiality. Anonymity was also guaranteed to the respondents by not writing their names on the questionnaires. No one was coerced to fill in the questionnaire.

Results and Discussion

4.1 Introduction

The main objective of the study was to examine the relationship between credit reference bureau services and the performance of commercial banks in Meru County. This chapter discusses: 4.2 response rate and reliability of test results, 4.3 demographic information, 4.4 descriptive analyses of variables in the study and 4.5 hypothesis testing.

4.2. Response Rate

The data for the study was collected by use of questionnaires. A total of 54 questionnaires were distributed to the targeted management staff in the commercial banks. All the questionnaires were successfully completed; hence 100% response rate was realized. The impressive return rate could be attributed to the fact that the researcher was customer in some of the banks. Also, the researcher had assured the management of the targeted banks that the study was purely for academic purposes and that a copy of the findings would be availed to the management of the respective banks. Hence there was adequate rapport between the researcher and the respondents.

4.2.1 Reliability Test Results

The Cronbach's coefficient alpha for the twenty items on improved risk management was .970 and for the fifteen questions on development of information capital was .890. Besides, the eight questions on increased business yielded a coefficient alpha of .962 while the five questions on information symmetry enumerated an alpha of .751; hence the internal consistence of the items under the study was good since it was above .70 as recommended by Mugenda and Mugenda (2003).

4.3 Profile of the Respondents

The profile of the respondents entailed the distribution of respondents by department of service and distribution of the respondents by experience in the banking industry.

4.3.1 Distribution of Respondents by Department of Service

It was established that slightly more than a third of the respondents (35.2%) were in personal banking department, 27.8% in business banking, 31.5% in credit administration unit and 5.6% in corporate banking. Hence, the respondents were fairly distributed among the major departments in the banking industry as illustrated in table 4.1.

Table 4.1: *Distribution of Respondents by department of service*

	Frequency	Percent
Credit Administration Unit	17	31.5
Corporate Banking	3	5.6
Business Banking	15	27.8
Personal Banking	19	35.2
Total	54	100.0

4.3.2 Respondents Experience in the Banking Sector

It was further established that more than half of the respondents (51.9%) had worked in the banking industry for 5 to 10 years, 22.2% 11 to 15 years, and 18.5% more than 20 years while 7.4% less than 5 years. This means than the respondents had worked in the banking industry for a period long enough to comment on the relationship between credit reference bureau services and the performance of commercial banks.

Table 4.2: *Distribution of Respondents by experience in the banking industry*

	Frequency	Percent
Less than 5 years	4	7.4
5 to 10 years	28	51.9
11 to 15 years	12	22.2
Above 20 years	10	18.5
Total	54	100.0

4.4 Descriptive Analysis of Study Variables

The study sought to establish the relationship between credit reference bureau services and the performance of commercial banks in Meru County. The independent variables of the study comprise; improved risk management, development of information capital, increased business, and enhanced information symmetry. A descriptive analysis of the aforementioned independent variables and the dependent variable; performance of banks is presented.

4.4.1 Risk Management Practices of Commercial Banks in Meru County

The study sought to establish the effect of improved risk management on performance of commercial banks in Meru County. Twenty items were used to examine the status of risk management practices in the

commercial banks. Four items enumerated approval ratings of over 60.0% meaning that the respondents concurred with the utilization of the risk management practices captured by the four items. Twelve items posted an approval rating of 50.0% to 60.0% signifying that the respondents were unsure about the utilization of the risk management practices captured by the twelve items. In contrast, four items posted an approval rating of less than 50.0% suggesting that the respondents differed with the utilization of the risk management practices captured by the four items.

Specifically, item one; risk management helps to reduce costs and expected losses at the bank enumerated the highest approval rating of 90.7%, item two; responsibility of risk management is clearly set out and well understood across the bank enumerated a rating of 70.3% and item three; there is a common understanding of risk management across the bank recorded a rating of 64.8% while item four; your bank has excellent overall risk management practices and processes registered a rating of 61.1%. Hence, in the opinion of the respondents, risk management contributed to reduction in costs, the responsibility of risk management was clearly set out and understood across the bank, there was a common understanding of risk management across the bank, and the banks had excellent overall risk management practices. This result is in harmony with the finding Omasete (2012) of who asserted that effective risk management has been embraced as a significant cornerstone in management of commercial banks.

On the other hand, item seventeen; your bank understands the risk management systems used by other banks and their costs and benefits scored a rating of 46.3%, same as item eighteen; your bank's level of risk control is appropriate for the risks that it faces and item nineteen; your bank specifically looks to recruit highly trained and qualified people in risk management while item twenty; it is dangerous to concentrate bank funds in one sector of the economy registered a rating of 44.4%. This result signifies that, in the opinion of the respondents, the banks were not concerned with the risk management systems used by other banks, the bank's level of risk control were not appropriate for the risks posed, the banks did not endeavor to recruit highly trained and qualified people in risk management, and the respondents were not aware on the danger of investing all the bank monies in one sector of the economy.

Reviewing high correlations among responses from the twenty items led the researcher to use one summated scale in looking at improved risk management. The answers from the twenty questions were summed to create a scale on improved risk management. Cronbach's coefficient alpha was .970; hence the internal consistence of the items related to improved risk management was good. The range of improved risk management scale was 20 to 100.

Table 4.3: *Risk management practices of commercial banks in Meru County*

Risk Management Item	Disagree	Neutral	Agree	Total
Risk management helps to reduce costs and expected losses at the bank	0	9.3	90.7	100%
Responsibility of risk management is clearly set out and well understood across the bank	13	16.7	70.3	100%
There is a common understanding of risk management across the bank	18.5	16.7	64.8	100%
Your bank has excellent overall risk management practices and processes	0	38.9	61.1	100%
Your bank's reporting and communication processes support the effective management of risk	33.3	7.4	59.3	100%
Your bank effectively assesses the likelihood of different risks occurring	33.4	7.4	59.2	100%
Your bank is able to accurately evaluate and prioritize different risk treatments even when there are constraints on risk treatment implementation	22.2	22.2	55.6	100%
The Basel II Accord is relevant to the risk management situation of your bank	33.3	11.1	55.6	100%
The management of risk makes an important contribution to the success of the bank	11.1	33.3	55.6	100%

Your bank takes significant steps to keep up to date with current risk management trends	22.3	22.2	55.5	100%
Your bank is able to accurately evaluate the costs and benefits of taking risks	33.3	13	53.7	100%
Your bank develops action plans for implementing decisions and management plans for identified risks	22.2	24.1	53.7	100%
Your bank's training policies encourage formal training in risk management	22.2	24.1	53.7	100%
Your bank uses qualitative methods such as Red Amber Green analysis to assess risks	38.9	9.2	51.9	100%
Your bank uses numerical methods to assess risks	11.1	38.9	50	100%
Your bank's risk management processes are well documented and provide guidance to staff about the management of risk	38.9	11.1	50	100%
Your bank understands the risk management systems used by other banks and their costs and benefits	38.9	14.8	46.3	100%
Your bank's level of risk control is appropriate for the risks that it faces	27.8	25.9	46.3	100%
Your bank specifically looks to recruit highly trained and qualified people in risk management	22.2	31.5	46.3	100%
It is dangerous to concentrate bank funds in one sector of the economy	38.9	16.7	44.4	100%

4.4.1.1 Improved Risk Management and Performance of Banks

The study sought to establish the relationship between improved risk management and performance of banks operating in Meru County. The respondents were asked their opinion on the influence of improved risk management on bank performance. A high majority (70.4%) indicated a large extent influence, 24.1% stated a very large extent influence while 5.6% opined a moderate extent influence. This result signifies that, in the opinion of the respondents, improved risk management greatly influenced bank performance since none upheld a contrary view. This result supports the finding of Maiyo (2009) who argued that risk management aids in improving financial performance of commercial banks.

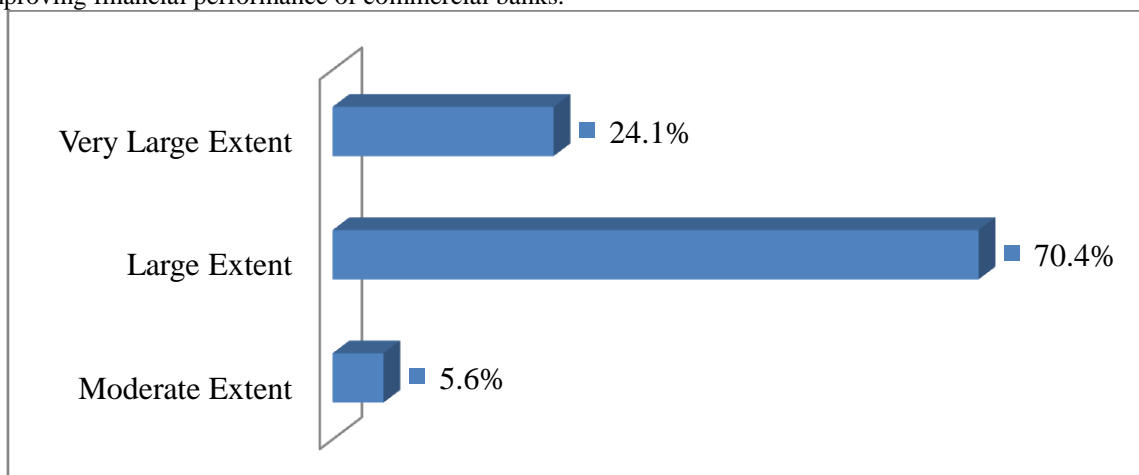


Figure 4.1: Improved risk management influence on bank performance

4.4.2 Development of Information Capital for Commercial Banks in Meru County

The study sought to establish the effect of development of information capital on performance of commercial banks in Meru County. Fifteen items were used to examine the development of information capital

in the commercial banks. All the fifteen items enumerated an approval rating of above 55% signifying that the respondents concurred with the development of information capital statements in question. Item one; our bank's culture contains valuable ideas, ways of doing business enumerated an approval rating of 98.1%, same as item two; Our employees are skilled at collaborating with each other to diagnose and solve problems, item three; our employees share information and learn from one another and item four. This indicates that, in the opinion of the respondents, the banks' culture contained valuable ideas; the banks' employees were skilled at collaborating with each other to diagnose and solve problems, the banks' employees shared information and learnt from one another, and the banks protected vital knowledge and information to prevent loss in the event key people left the organization.

Item five; our employees interact and exchange ideas with people from different areas of the bank enumerated a rating of 96.3%, item six; our employees are able to develop new ideas and knowledge posted a rating of 96.2%, item seven; our employees are creative and bright registered a rating of 94.5% while item eight; our employees are experts in their particular jobs and functions scored a rating of 94.4% same as item nine; our bank uses patents and licenses as a way to store knowledge. Hence, in the opinion of the respondents the banks' employees: interacted and exchanged ideas with people from different areas of the bank; were able to develop new ideas and knowledge, were creative and bright, were experts in their particular jobs and functions and the banks utilized patents and licenses as a way to store knowledge.

Besides, item ten; our employees have the capacity to partner with customers, suppliers, alliance partners to develop business solutions enumerated a rating of 92.6%, same as item eleven; our bank embeds much of the knowledge and information in structures, systems, and processes while item twelve; our employees are highly skilled posted a rating of 88.9% and item thirteen; our employees apply knowledge from one area of the bank to problems and opportunities that arise in another scored a rating of 61.1%. This result implies that, in the opinion of the respondents, the banks' employees had the capacity to partner with customers, suppliers, alliance partners to develop business solutions, the banks embedded much of the knowledge and information in structures, systems, and processes, the banks' employees were highly skilled, and the banks' employees applied knowledge from one area of the bank to problems and opportunities that arose in another.

Reviewing high correlations among responses from the fifteen items led the researcher to use one summated scale in looking at development of information capital. The answers from the fifteen questions were summed to create a scale on development of information capital. Cronbach's coefficient alpha was .890; hence the internal consistence of the items related to development of information capital was good. The range of development of information capital scale was 15 to 75.

Table 4.4: Development of information capital for commercial banks

Information Capital Item	Disagree	Neutral	Agree	Total
Our bank's culture contains valuable ideas, ways of doing business	0	1.9	98.1	100%
Our employees are skilled at collaborating with each other to diagnose and solve problems	0	1.9	98.1	100%
Our employees share information and learn from one another	0	1.9	98.1	100%
Our bank protects vital knowledge and information to prevent loss in the event key people leaves the organization	0	1.9	98.1	100%
Our employees interact and exchange ideas with people from different areas of the bank	0	3.7	96.3	100%
Our employees are able to develop new ideas and knowledge	1.9	1.9	96.2	100%
Our employees are creative and bright	1.9	3.6	94.5	100%
Our employees are experts in their particular jobs and functions	1.9	3.7	94.4	100%
Our bank uses patents and licenses as a way to store knowledge	1.9	3.7	94.4	100%
Our employees have the capacity to partner with customers, suppliers, alliance partners to develop business solutions	3.7	3.7	92.6	100%

Our bank embeds much of the knowledge and information in structures, systems, and processes	0	7.4	92.6	100%
Our employees are highly skilled	3.7	7.4	88.9	100%
Our employees apply knowledge from one area of the bank to problems and opportunities that arise in another	5.6	33.3	61.1	100%
Our bank's knowledge is mostly contained in manuals, data base	0	40.7	59.3	100%
Our employees are widely considered the best in our industry	1.9	42.5	55.6	100%

4.4.2.1 Development of Information Capital and Performance of Commercial Banks

The study sought to establish the relationship between improved development of information capital and performance of banks operating in Meru County. The respondents were asked their opinion on the influence of development of information capital on bank performance. Nearly four fifths of the respondents (79.6%) indicated that development of information capital had a large extent influence on bank performance and 20.4% opined that development of information capital had a very large extent influence on bank performance. This signifies that in the opinion of the respondents, development of information capital had a significant effect on the performance of commercial banks in Meru County since none of the respondents held a divergent opinion. This result supports the argument of Al-Musali & Ismail (2016) who asserted that the potential of an organization creating a competitive advantage and long-term value is based on the premise of efficient management of information capital.

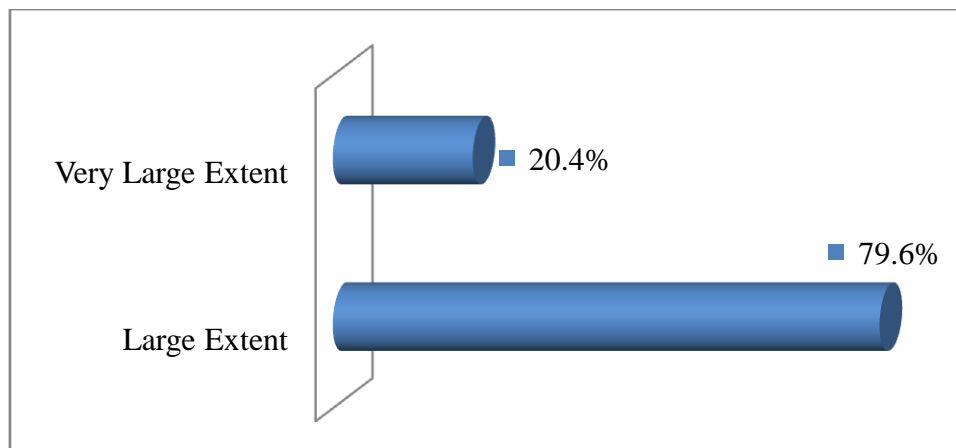


Figure 4.2: Development of information capital influence on bank performance

4.4.3 Increased Business of Commercial Banks in Meru County

The study sought to establish the effect of increased business on performance of commercial banks in Meru County. Eight items were used to examine the extent of increased business in the commercial banks. Three items posted an approval rating of more than 50.0% signifying that the respondents were in agreement with the increased business statements, while five items enumerated a rating of less than 40.0% indicating that the respondents disagreed with the increased business statements in question.

Item one; there has been extensive acquisition and use of IT in our bank for services delivery posted a rating of 87%, item two; strategies for customer acquisition have been put in place in our bank enumerated a rating of 59.2% while item three; addition of new product features to the existing product is frequently done in our bank (pricing) scored a rating of 53.7%. Hence, in the opinion of the respondents, the banks extensively utilized IT for service delivery, strategies were in place for customer acquisition and the banks frequently introduced new product features.

On the other hand, item four; our bank has been branding /rebranded most of the existing products and re-launching them into the market posted a rating of 37%, item five; Our bank has been using retained earnings for the bank expansions, giving dividends to the stakeholders and paying bank's debts recorded a rating of

35.2%, item six; There is an established reward scheme in our bank where monetary, non-monetary or contingency rewards are offered to employees registered a rating of 24% while item seven; our bank has been creating awareness of existing products is upheld scored a rating of 11.2%, same as item eight; there has been involvement of customers or customer representatives before investing to ensure customer satisfaction. This result suggests that the respondents were not in agreement with the aforesaid five increased business statements as more than three fifths of the respondents upheld this opinion.

Reviewing high correlations among responses from the eight items led the researcher to use one summated scale in looking at increased business. The answers from the eight questions were summed to create a scale on increased business. Cronbach's coefficient alpha was .962; hence the internal consistence of the items related to increased business was good. The range of development of information capital scale was 8 to 40.

Table 4.5: *Increased business of commercial banks in Meru County*

Market & Internal growth strategies	Disagree	Neutral	Agree	Total
There has been extensive acquisition and use of IT in our bank for services delivery	0	13	87	100%
Strategies for customer acquisition have been put in place in our bank	13	27.8	59.2	100%
Addition of new product features to the existing product is frequently done in our bank (pricing)	35.2	11.1	53.7	100%
Our bank has been branding /rebranded most of the existing products and re-launching them into the market	24.1	38.9	37	100%
Our bank has been using retained earnings for the bank expansions, giving dividends to the stakeholders and paying bank's debts	46.3	18.5	35.2	100%
There is an established reward scheme in our bank where monetary, non-monetary or contingency rewards are offered to employees	13	63	24	100%
Our bank has been creating awareness of existing products is upheld (advertising)	51.8	37	11.2	100%
There has been involvement of customers or customer representatives before investing to ensure customer satisfaction	51.8	37	11.2	100%

4.4.3.1 Respondents Opinion on Utilization of Mobile and Internet Banking

The opinion of the respondents on the extent to which the commercial banks offered mobile and internet banking was sought. A high majority of the respondents (61.1%) indicated that the commercial banks utilized mobile and internet banking to a very large extent, around a quarter (25.9%) specified large extent utilization while 13.0% stated that the commercial banks utilized mobile and internet banking to a little extent. This result signifies that, in the opinion of the respondents, mobile and internet banking was extensively utilized by the commercial banks in Meru County since only less than a fifth of the respondents held a contrary opinion. This is in agreement with the finding of Mutua (2010) who established that M-banking and online banking have provided an opportunity for financial organizations to provide banking services through mobile phones and online as well as provision of easy access of financial services and an array of other benefits to the customer.

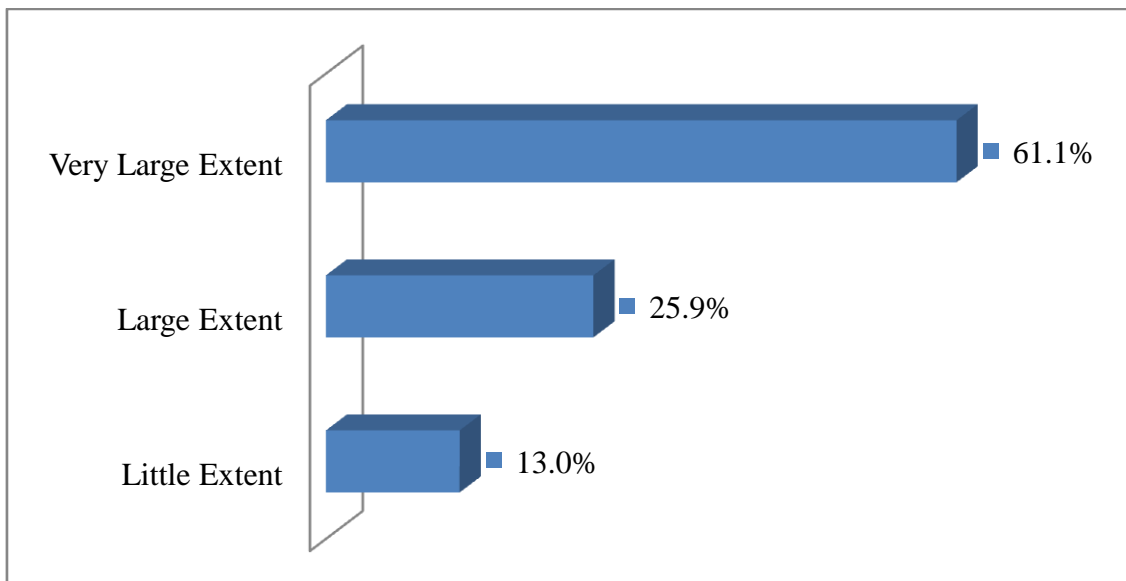


Figure 4.3: *Extent to which the bank offers mobile and internet banking*

4.4.3.2 Respondents Opinion on Utilization of Agency Banking

Half of the respondents (50.0%) opined that the commercial banks were utilizing agency banking to a very large extent, 18.5% stated large extent utilization, and 13.0% indicated moderate extent while 11.1% specified a little extent utilization of agency banking. Less than a tenth (7.4%) of the respondents indicated that agency banking was not utilized at all. This result suggests that agency banking was prevalent in commercial banks operating in Meru County since two thirds of the respondents upheld this opinion. This finding supports the finding of Mutua (2010) who asserted that many financial institutions have embraced agency banking especially in receiving deposits, transfer of funds, withdrawals, paying of bills, and making inquiries regarding one's account balance.

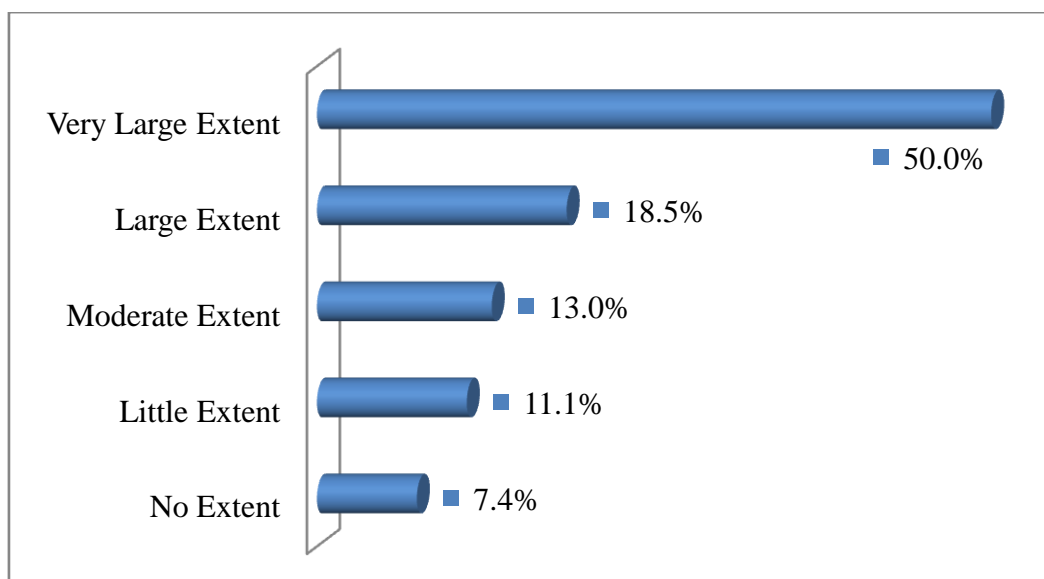


Figure 4.4: *Extent to which the bank offers agency banking*

4.4.3.3 Respondents Opinion on Utilization of Money Transfer Services

In respect to utilization of money transfer services, 55.6% indicated very large extent utilization, 27.8% specified large extent, and 9.3% stated moderate extent while 7.4% opined little extent utilization of money

transfer services. Hence, in the opinion of the respondents, money transfer services was utilized to a large extent since only less than a fifth of the respondents held a differing opinion.

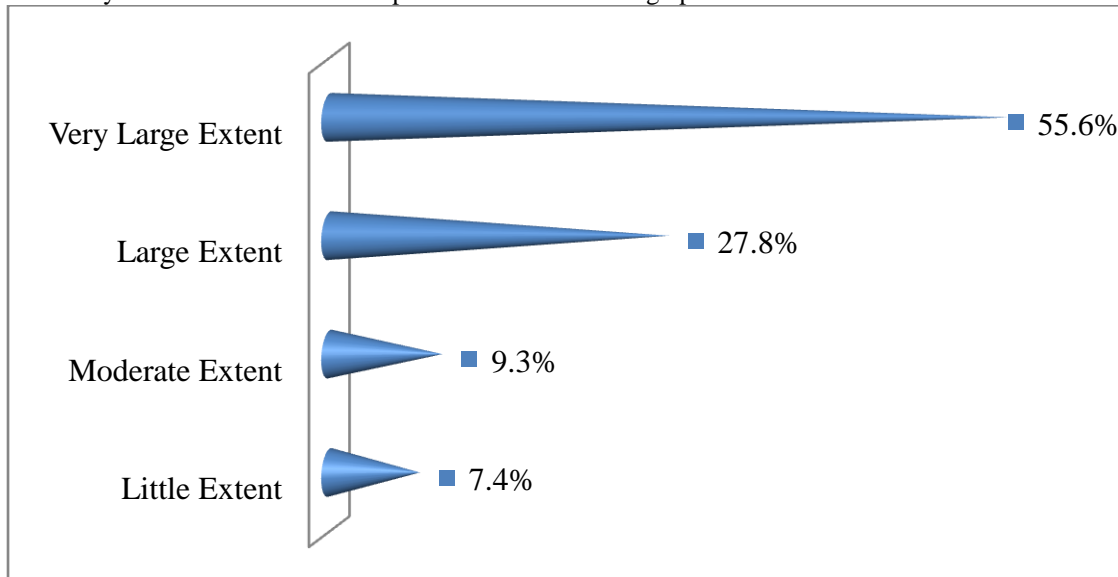


Figure 4.5: Extent to which the bank offers money transfer services

4.4.3.4 Respondents Opinion on Utilization of Assets Financing

In respect to utilization of asset financing by the commercial banks, 37.0% indicated large extent utilization, 33.3% specified moderate extent, and 18.5% stated very large extent while 11.1% indicated little extent. This signifies that asset financing was utilized by the commercial banks to a fairly large extent since more than half of the respondents indicated intense utilization.

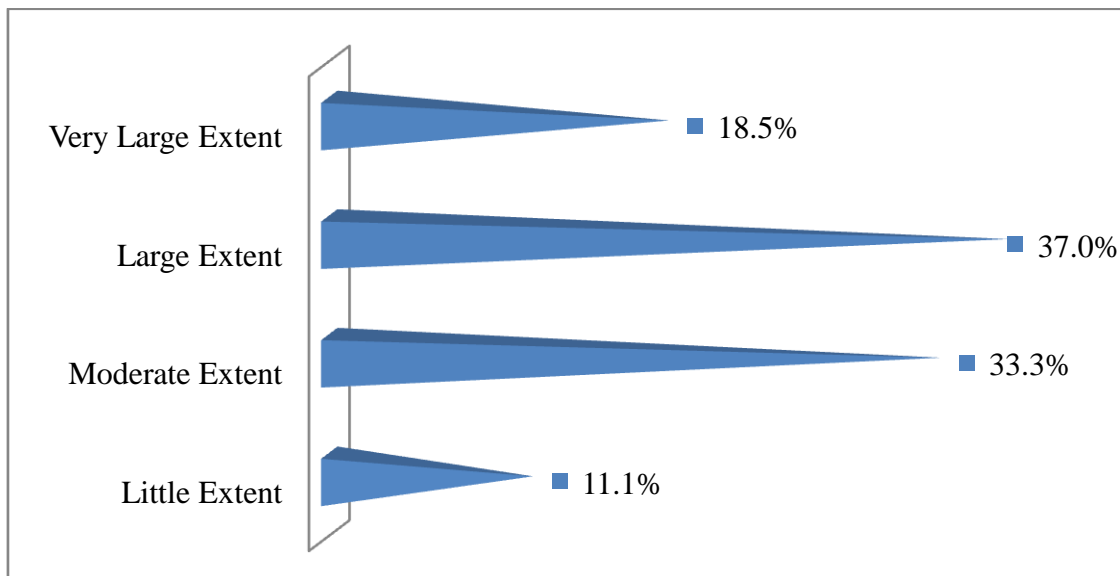


Figure 4.6: Extent to which the bank offers asset financing

4.4.3.5 Increased Business and Bank Performance

The study sought to establish the influence of increased business on bank performance. The respondents were asked to give their opinion on influence of increased business on performance of commercial bank. Slightly more than a third of the respondents (35.2%) indicated very large extent influence, same as large extent while 29.6% stated moderate influence of increase business on performance of commercial banks.

Hence, in the opinion of the respondents, increased business had a significant influence on performance of commercial banks in Meru County as none of the respondents held a contrary opinion.

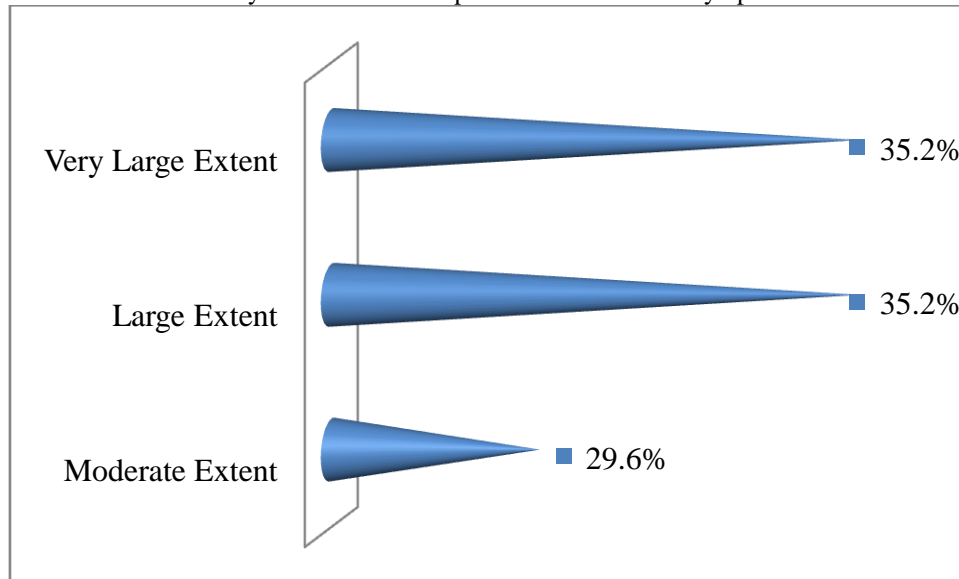


Figure 4.7: Influence of increased business on bank performance

4.4.4 Information Symmetry in Commercial Banks of Meru County

The study sought to establish the effect of information symmetry on performance of commercial banks in Meru County. Five items were used to examine the information symmetry in the commercial banks. All the five items enumerated an approval rating of more than 80.0% signifying that the respondents concurred with the information symmetry statements in question.

Item one; including all credit history from other credit suppliers (positive information) would increase credit approval by commercial banks posted an approval rating of 100%, item two; low default rate would result from lending to borrowers based solely on all credit suppliers (positive information) would increase credit approval by commercial banks enumerated a rating of 94.4%, same as item three; high default rate would result to lending to borrowers based solely on only the absence of default (negative) information from Credit Reference Bureau and item four; your organization forwards list of credit defaulters (Negative Information) only to credit reference bureau registered a rating of 92.6% while item five; your organization forwards list of credit defaults, overall loan exposure, guarantees and data from past credit history to Credit Reference Bureau posted a rating of 88.9%. This signifies that the commercial banks supplied relevant information on its customers to credit reference bureau and received similar information from the credit supplies. Besides, the credit history supplied helped the commercial banks in assessing the credit worthiness of the customers and decreasing the default rates.

Reviewing high correlations among responses from the five items led the researcher to use one summated scale in looking at information symmetry. The answers from the five questions were summed to create a scale on information symmetry. Cronbach's coefficient alpha was .751; hence the internal consistence of the items related to information symmetry was good. The range of development of information capital scale was 5 to 25.

Table 4.6: Information symmetry in commercial banks of Meru County

Information symmetry Item	Neutral	Agree	Total
Including all credit history from other credit suppliers (positive information) would increase credit approval by commercial banks.	0	100	100%

Low default rate would result from lending to borrowers based solely on all credit suppliers (positive information) would increase credit approval by commercial Banks.	5.6	94.4	100%
High default rate would result to lending to borrowers based solely on only the absence of default (negative) information from Credit Reference Bureau.	5.6	94.4	100%
Your organization forwards list of credit defaulters (Negative Information) only to credit reference bureau.	7.4	92.6	100%
Your organization forwards list of credit defaults, overall loan exposure, guarantees and data from past credit history to Credit Reference Bureau.	11.1	88.9	100%

4.4.4.1 CRB Organization Engaged by Commercial Banks

The study sought to establish the CRB organizations that were engaged by the commercial banks. Half of the respondents (50%) indicated that they engaged Metropol in sharing customers credit information, 27.8% specified Trans Union Africa while 22.2% indicated that they engaged both CRB institutions. This means that Metropol was the most utilized CRB organization engaged by the commercial banks in Meru County as only less than three quarters of the respondents reported engagement with Metropol as illustrated in table 4.7.

Table 4.7: CRB organization engaged by the bank

	Frequency	Percent
Trans Union Africa	15	27.8
Metropol	27	50.0
Trans Union Africa & Metropol	12	22.2
Total	54	100.0

4.4.4.2 Average CRB Inquiries made by Commercial Banks of Meru County

It was established that more than half of the commercial banks (57.4%) made 16 to 30 applications to CRB in a month, 25.9% indicated less than 15 applications, and 11.1% stated 31 to 45 applications while 5.6% attested more than 45 applications to CRB in a month. This suggests that most commercial banks in Meru County made 16 to 30 inquiries to CRB in a month as more than half of the respondents indicated so.

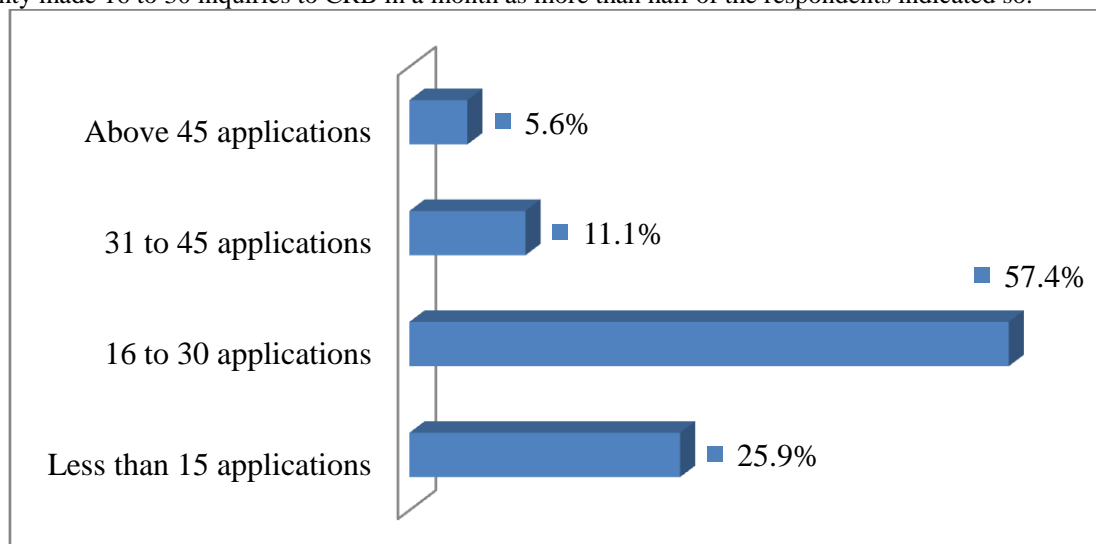


Figure 4.8: Average CRB inquiries made in a month

4.4.4.2 Credit History (Negative) Submitted to CRB by Commercial Banks in Meru County

Interestingly, all the respondents (100%) indicated that their banks submitted negative credit histories of its customers to CRB. Hence, in the opinion of the respondents, all the commercial banks in Meru County were compliant of the regulations requiring commercial banks to submit negative credit histories to CRB. According to the Commercial Bank of Kenya (CBK), the introduction of CRBs was to facilitate sharing of specifically negative credit information in terms of non-performing loans. Every bank lender is required to participate in credit information sharing.

Table 4.8: *The bank submits credit histories (Negative) of its customers to CRB*

	Frequency	Percent
Yes	54	100.0

4.4.4.3 Credit History (Positive) Submitted to CRB by Commercial Banks

All the respondents (100%) indicated that their banks submitted positive credit histories of its customers to CRB. As pointed out earlier all the commercial banks in Meru County were compliant of the regulations requiring commercial banks to submit relevant credit histories to CRB. Gettee(2012) asserts that positive information shared includes the current liabilities, employment, guarantees, income and current assets of the potential borrower.

Table 4.9: *The bank submits credit histories (Positive) of its customers to CRB*

	Frequency	Percent
Yes	54	100.0

4.4.4.4 Proportion of Loan Applications approved based on the Credit Reference Reports

The respondents were asked to state the proportion of loan applications approved based on credit reference reports. Majority of the respondents (42.6%) indicated 41 to 60% applications, 29.6% specified 81 to 100% applications, and 20.4% stated 61 to 80% while 7.4% indicated less than 20% applications. This result indicates that on average 41 to 60% loan applications made to commercial banks in Meru County were approved based on the credit reference reports. This result is in harmony with the finding of Schenone (2010) who affirmed that Credit reference bureau services create an opportunity for a wider cross-section of the population to access credit, particularly those with no access to tangible collateral.

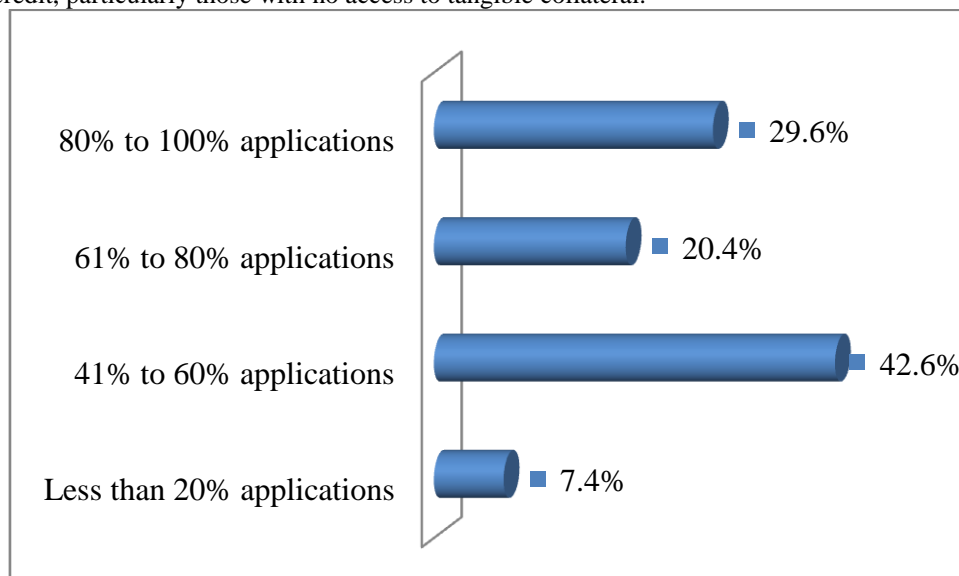


Figure 4.9: *Percentage of loan applications approved based on the credit reference reports*

4.4.4.5 Proportion of Loan Applications Declined based on the Credit Reference Reports

Asked the proportion of the loan applications that were declined based on credit reference reports, 38.9% of the respondents indicated 41 to 60% applications, 33.3% stated less than 20% applications, and 16.7% specified 21 to 40% applications while 11.1% indicated 80 to 100% applications. Hence, in the opinion of most respondents, 41 to 60% of the loan applications declined was based on credit reference reports. This result supports the finding of Waweru&Kalani (2009) who argued that through the use of credit reference bureau services, banks are in a position to obtain detailed information of a person’s credit history, including information on their identity, credit accounts and loans, bankruptcies and late payments and recent inquiries. Negative information shared include: proven frauds and forgeries, cheque kiting, false declarations and statements, receiverships, bankruptcies and liquidations, credit default and late payments, use of false securities, and misapplication of borrowed funds.

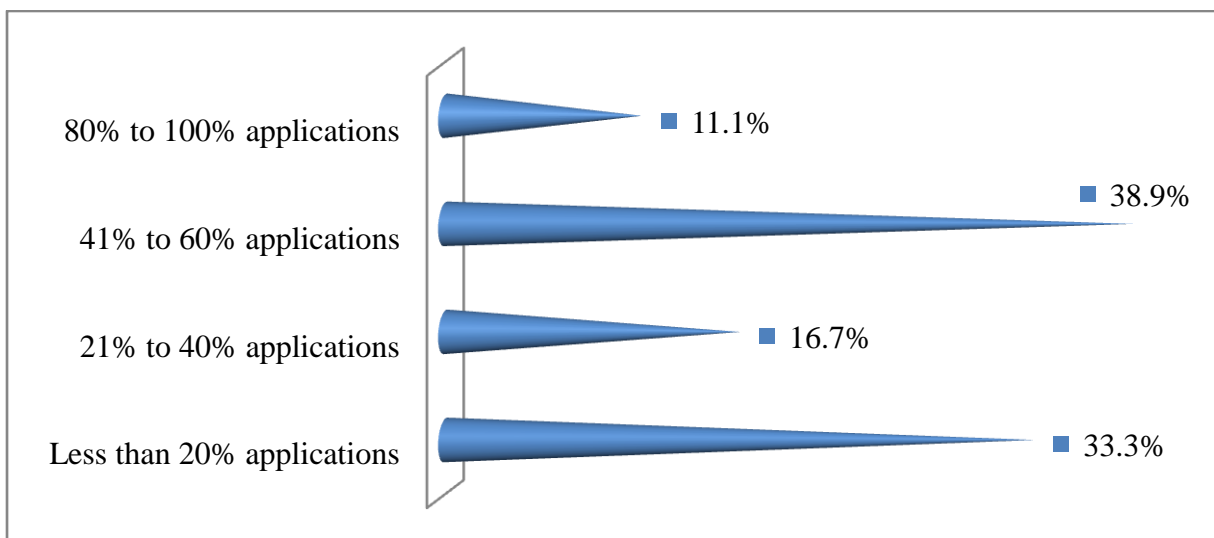


Figure 4.10: *Percentage of loan applications declined based on the credit reference reports*

4.4.4.6 Influence of Enhanced Information Symmetry on Bank Performance: Respondents Opinion

More than half of the respondents (53.7%) indicated that information symmetry had a large extent influence on performance of commercial banks in Meru County, 24.1% opined a moderate extent influence while 22.2% specified that information symmetry had a very large extent influence of performance of commercial banks in Meru County. Hence, in the opinion of the respondents, information symmetry had a significant influence on performance of commercial banks in Meru County as none of the respondents held a divergent opinion. This is in harmony with the argument of Mwangi (2013) who affirmed that information symmetry is vital in the banking sector as the role of banks is to safeguard clients as well as helping them grow while extending credit to benefit them economically.

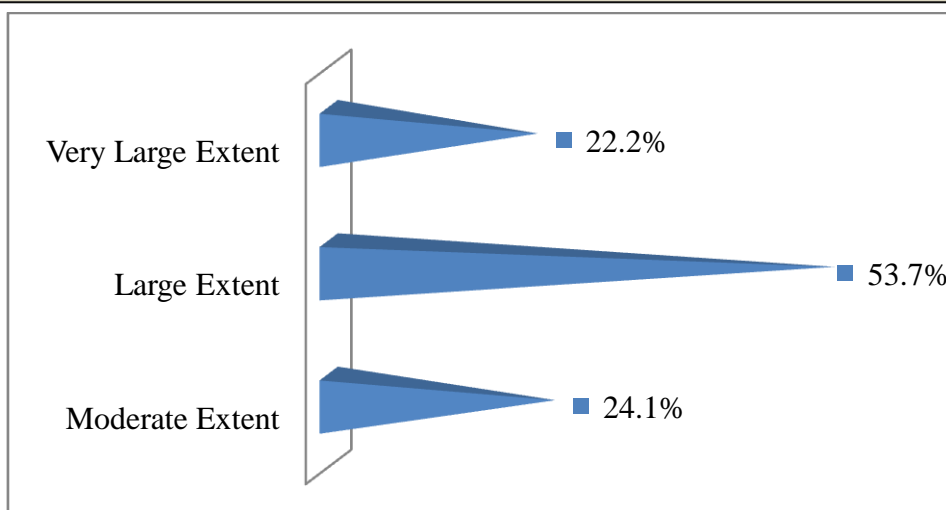


Figure 4.11: Information symmetry influence on bank performance

4.4.5 Distribution of Commercial Banks in Meru County by Net Profit Earned: 2016

It was revealed that 27.8% of the commercial banks operating in Meru County posted a net profit of over 10 billion shillings, same as 100 million to 1 billion, and 16.7% registered a net profit of 7 to 10 billion shillings, same as 1 to 7 billion shillings while 11.1% of commercial banks operating in Meru County recorded a net profit of less than 100 million. This result signifies that nearly two thirds of the banks operating in Meru County had bit the 1 billion net profit mark as illustrated in figure 4.12.

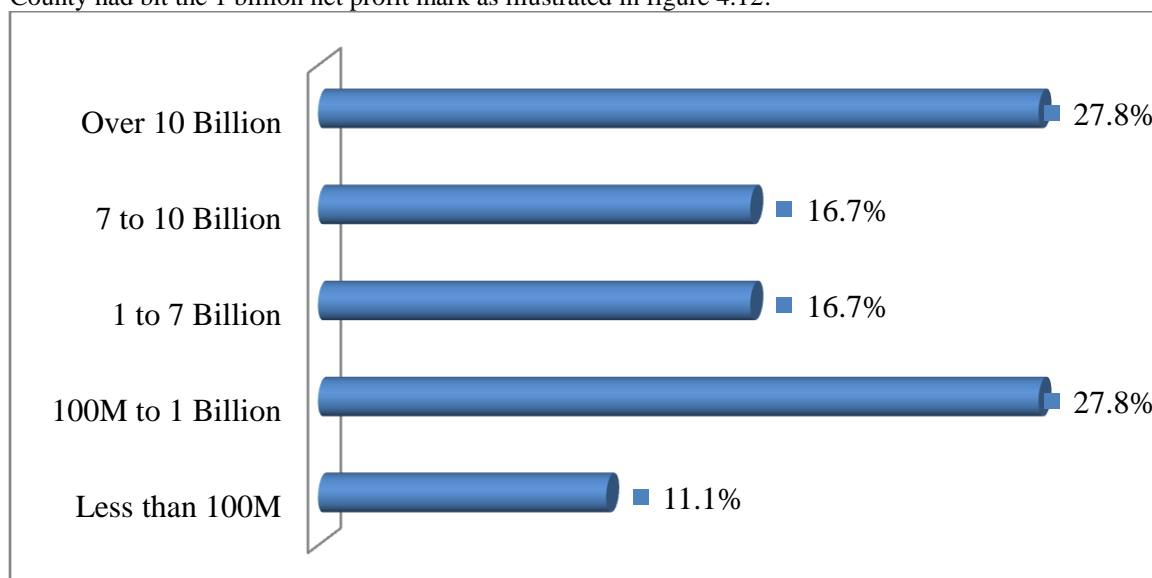


Figure 4.12: Distribution of banks by net profit earned: 2016

4.4.5.1 Distribution of Commercial Banks in Meru County by Asset Base: 2016

It was further established that 27.8% of the commercial banks operating in Meru County registered an asset base of 20 to 40 billion shillings, and 22.2% enumerated an asset base of 40 to 70 billion shillings while 16.7% posted an asset base of over 90 billion, same as 70 to 90 billion shillings and less than 20 billion shillings. Hence, more than half of the banks posted an asset base of more than 40 billion shillings as illustrated in figure 4.13.

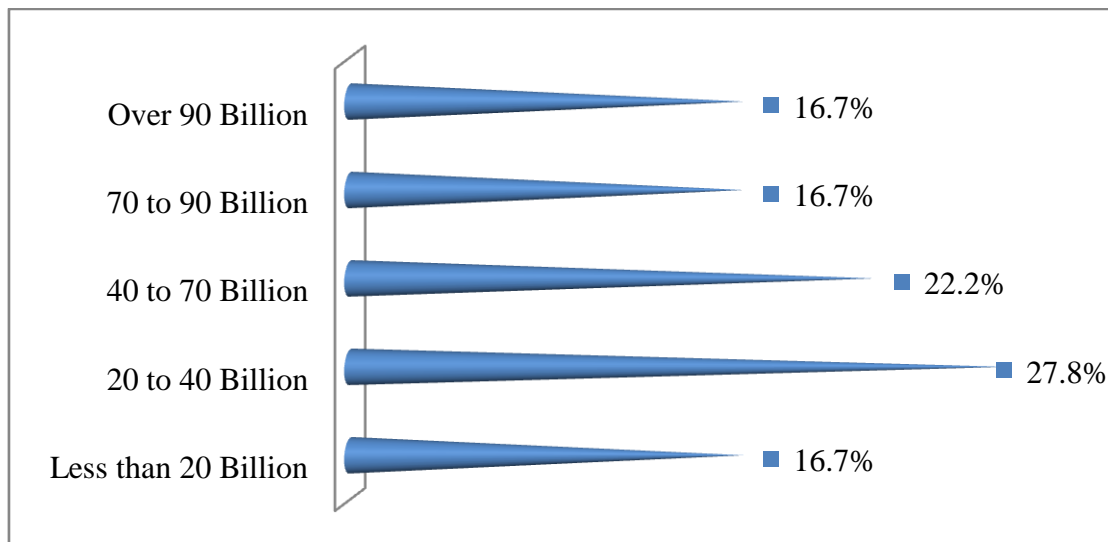


Figure 4.13: *Distribution of banks by asset base: 2016*

4.4.5.2 Distribution of Commercial Banks in Meru County by Return on Assets: 2016

In respect to rate of return on assets managed by the commercial banks, a third of the banks (33.3%) posted a rate of 11 to 20%, 22.2% recorded 1 to 10%, and 16.7% enumerated 21 to 30% same as less than 1% while 11.1% registered a rate of return on asset greater than 30%. This result signifies that nearly two thirds of the commercial banks operating in Meru County had recorded a rate of return on assets on more than 10%.

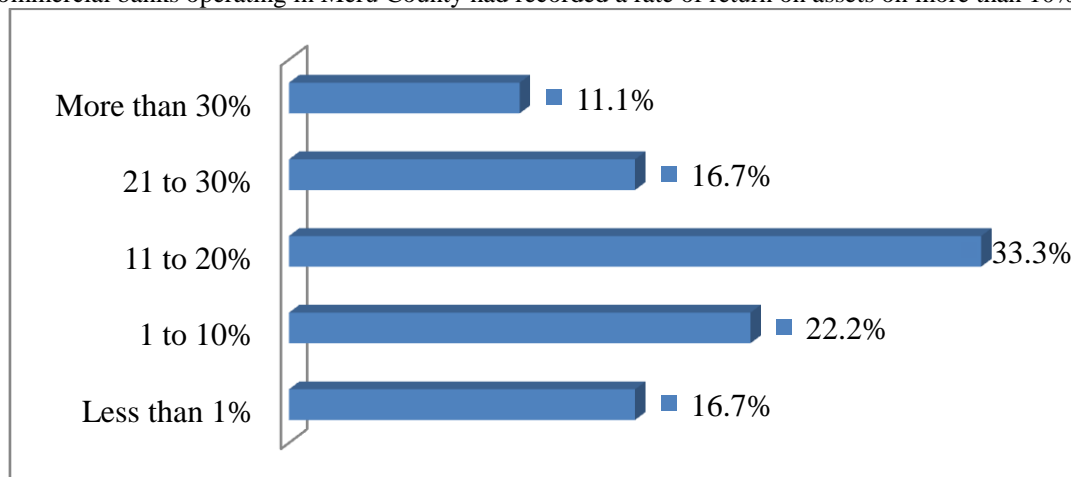


Figure 4.14: *Distribution of banks by return on assets: 2016*

4.5 HYPOTHESES TESTING

To determine the independent variable that is significantly associated with performance of commercial banks in Meru County, a multiple linear regression was utilized since the dependent and independent variables were continuous. The ANOVA statistics and model summary were used to measure the overall relationship between independent variables and dependent variable.

4.5.1 Model Summary

The multiple R for the relationship between the set of independent variables and the dependent variable is .847 which means a strong correlation. R^2 tells us the proportion of the variation in the dependent variable that is explained by the four predictors. This means that 71.8% of the variation in performance of commercial banks in Meru County can be explained improved risk management, development of information capital, increased

business and enhanced information symmetry. Adjusted R² corrects for multiple predictors, giving a slightly lower value.

Table 4.10: *Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error
1	.847	.718	.695	.08662

4.5.2 ANOVA

The probability of the F statistic (31.180) for the overall regression relationship is <.001, less than the level of significant of .05. The null hypothesis that there is no relationship between the independent variables and the dependent variable ($R^2 = 0$) was thus rejected. The research hypothesis that there is a statistically significant relationship between the set of independent variables and the dependent variable was subsequently supported.

Table 4.11: *ANOVA*

Model		Sum of Squares	df	Mean Square	F	P – Value
1	Regression	.936	4	.234	31.180	.000
	Residual	.368	49	.008		
	Total	1.303	53			

4.5.3 CRB Components Significantly associated with Performance of Commercial Banks in Meru County

The variables for the study were improved risk management, development of information capital, increased business and enhanced information symmetry. Though the independent variables were initially measured using a likert scale, they were later transformed to continuous variables since the internal consistence of the items was high from the coefficient alpha yielded of more than 0.8. In the transformation, strongly disagreed was assigned a score of 1, disagreed a score of 2, neutral a mark of 3, agree a score of 4 and strongly agree a score of 5. This translated into a continuous scale ranging from 20 to 100 for improved risk management, a range of 15 to 75 for development of information capital, range of 8 to 40 for increased business and a range of 5 to 25 for enhanced information symmetry. The output of the multiple regressions indicating the significance of each of the predictor variable is shown in table 4.12.

Table 4.12: *CRB Components Significantly associated with Performance of Commercial Banks*

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Improved Risk	.004	.002	.476	2.427	.019
Development of Information Capital	.010	.004	.433	2.260	.028
Increased Business	-.004	.002	-.141	-1.683	.099
Enhanced Information Symmetry	.028	.016	.145	1.750	.086

4.5.3.1 Improved Risk Management

For the predictor variable improved risk management, the probability of the t statistic (2.427) for the b coefficient is =.019 which is less than the level of significance .05. The null hypothesis that the slope associated with improved risk management is equal to zero ($b = 0$) was therefore rejected. Hence, it was concluded that

there is a statistically significant relationship between improved risk management and performance of commercial banks in Meru County. The relationship between improved risk management and performance of commercial banks in Meru County was found to be positive from the regression coefficients. This finding agrees well with the finding of Mwangi (2013) who argued that risk management practices have often been identified as having a substantial effect on performance. It also supports the finding of Omasete (2012) who affirmed that risk management can be utilized as a tool for managers to be in a position to increase an organization's value by ensuring profitability of the organization is continuous.

Effective risk management is vital in the bank operations to avoid losses and eventual insolvency. Prevention of losses by precautionary measures is a critical element in risk reduction and consequently, the organization becomes profitable. The aim of risk management is for the bank to identify loss exposures it is facing and deciding on the most suitable technique for treating the exposure. Hence, a commercial bank that accurately evaluates anticipated loss exposures and carefully selects the appropriate measures to address the exposures is likely to reduce possible risks and subsequently improve performance. Thus, the bank management should continuously identify, evaluate, monitor and mitigate all material risks and also do capital adequacy assessment with regard to their risk profile.

4.5.3.2 Development of Information Capital

For the predictor variable development of information capital, the probability of the t statistic (2.260) for the b coefficient is =.028 which is less than the level of significance .05. The null hypothesis that the slope associated with development of information capital is equal to zero ($b = 0$) was therefore rejected. Hence, it was concluded that there is a statistically significant relationship between development of information capital and performance of commercial banks in Meru County. The relationship between development of information capital and performance of commercial banks in Meru County was found to be positive from the regression coefficients. This finding is in harmony with the finding of Al-Musali and Ismail (2016) who asserted that information capital resources such as customer relations and human capital have become imperative in the success of many businesses and significant in sustaining a competitive advantage and creation of value in an organization. It is also in agreement with the finding of Jiang, et al., (2012) who affirmed that performance of commercial banks is significantly influenced by employee performance and consequent customer satisfaction. Performance of commercial banks is affected by globalization which influences changing customer demands, hence the need for the commercial bank to innovative products and processes as well as improve quality and productivity to remain in business. For this to be attained, the bank management must heavily invest in its employees to give it a competitive edge. This is critical since a bank is a knowledge-based firm where resources are intellectual in nature and non-tangible.

4.5.3.3 Increased Business

This study did not establish a significant relationship between increased business and performance of commercial banks in Meru County. The p – value was greater than .05, hence the null hypothesis there is no significant relationship between increased business and performance of commercial banks in Meru County could not be rejected.

4.5.3.4 Information Symmetry

This study did not establish a significant relationship between information symmetry and performance of commercial banks in Meru County. The p – value was greater than .05, hence the null hypothesis there is no significant relationship between information symmetry and performance of commercial banks in Meru County could not be rejected.

Summary, Conclusions, and Recommendations

5.1 Introduction

The main objective of the study was to examine the relationship between credit reference bureau services and the performance of commercial banks in Meru County. This chapter discusses: 5.2 summary of the findings, 5.3 makes conclusions of the findings and 5.4 gives relevant recommendations.

5.2 Summary of the Findings

The study sought to examine the relationship between credit reference bureau services and the performance of commercial banks in Meru County. The predictor variables were; improved risk management, development of information capital, increased business, and enhanced information symmetry.

5.2.1 Improved Risk Management and Performance of Commercial Banks in Meru County

The study sought to establish the effect of improved risk management on performance of commercial banks in Meru County. It was established that risk management contributed to reduction in costs, the banks had excellent overall risk management practices and the responsibility of risk management was clearly set out and understood across the bank. It was further established that risk management played a key role to the success of the bank, there was a common understanding of risk management across the bank, the banks took significant steps to keep up with the modern risk management trends and the banks utilized numerical methods to assess risks. The respondents opined that development of information capital had a significant effect on the performance of commercial banks in Meru County. A multiple regression analysis indicated that there was a statistically significant relationship between improved risk management and performance of commercial banks in Meru County. Hence, the null hypothesis that the slope associated with improved risk management is equal to zero ($b = 0$) was rejected.

5.2.2 Development of Information Capital and Performance of Commercial Banks in Meru County

The study sought to establish the effect of development of information capital on performance of commercial banks in Meru County. It was revealed that the bank employees were competent, highly skilled and with excellent interpersonal skills. Further analysis indicated that the bank employees had developed necessary networks and creativity to offer business solutions and this knowledge was adequately protected. The respondents opined that development of information capital had a significant effect on the performance of commercial banks in Meru County. It was further established that there was a statistically significant relationship between development of information capital and performance of commercial banks in Meru County. The null hypothesis that the slope associated with development of information capital is equal to zero ($b = 0$) was therefore rejected.

5.2.3 Increased Business and Performance of Commercial Banks in Meru County

The study sought to establish the effect of increased business on performance of commercial banks in Meru County. It was established that there was extensive utilization of technology by the commercial banks in service delivery and customer acquisition was a top priority in the commercial banks agenda. However, in the opinion of the respondents, strategies employed in branding, improving products, rewarding employees and utilizing retained earnings in expansion programs were not effective. Besides, there was minimal customer involvement in arriving at decision meant to improve delivery and the commercial banks were not aggressive in advertising its products. It was further established that mobile and internet banking, agency banking, money transfer services, was extensively utilized by the commercial banks in Meru County. Asset financing was also utilized though to a moderate extent. The respondents opined that increased business had a significant influence on performance of commercial banks in Meru County. A multiple regression analysis did not establish a significant relationship between increased business and performance of commercial banks in Meru County. Hence the null hypothesis there is no significant relationship between increased business and performance of commercial banks in Meru County could not be rejected.

5.2.4 Enhanced Information Symmetry and Performance of Commercial Banks in Meru County

The study sought to establish the effect of information symmetry on performance of commercial banks in Meru County. It was established that the commercial banks supplied relevant information on its customers to credit reference bureau and received similar information from the credit supplies. Besides, the credit history supplied helped the commercial banks in assessing the credit worthiness of the customers and decreasing the default rates. The respondents opined that information symmetry had a significant influence on performance of commercial banks in Meru County. A multiple regression analysis did not establish a significant relationship between enhanced information symmetry and performance of commercial banks in Meru County. Hence the null hypothesis there is no significant relationship between information symmetry and performance of commercial banks in Meru County could not be rejected.

5.3 Conclusions

The study concluded that improved risk management and development of information capital were significantly associated with performance of commercial banks in Meru County.

5.3.1 Improved Risk Management

The study concluded that there was a statistically significant relationship between improved risk management and performance of commercial banks in Meru County. Preventing losses by ensuring precautionary measures are taken is a key driver of performance and one of the vital elements in risk reduction. Subsequently, effective risk management has been embraced as a significant cornerstone in management of commercial banks.

5.3.2 Development of Information Capital

It was concluded that there was a statistically significant relationship between development of information capital and performance of commercial banks in Meru County. The potential of an organization creating a competitive advantage and long-term value is based on the premise of efficient management of information capital. Information capital resources such as customer relations and human capital have become imperative in the success of commercial banks and significant in sustaining a competitive advantage and creation of value in an organization.

5.4 Recommendations

From the conclusion arrived at that improved risk management and development of information capital were significantly associated with performance of commercial banks in Meru County, the researcher wishes to make the following recommendations,

1. The management of commercial banks should continuously identify, evaluate, monitor and mitigate all material risks and also do capital adequacy assessment with regard to their risk profile.
2. The management of commercial banks must heavily invest in its employees to give it a competitive edge, since a bank is a knowledge-based firm where resources are intellectual in nature and non-tangible.

5.4.1 Recommendations for Further Research

Since the study focused on commercial banks, it is suggested that the study be extended to other financial institutions to assess whether different findings may be reached regarding relationship between credit reference bureau services and the performance.

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