

**THE MEASUREMENT AND MANAGEMENT OF OPERATIONAL RISK IN
SOUTH AFRICAN
CO-OPERATIVE BANKS**

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DECLARATION

I declare that the dissertation which I hereby submit for the degree of Masters of Commerce in Risk Management is my own work and that all the sources used or quoted have been identified and acknowledged by means of complete references. This dissertation has not previously been submitted by me for a degree at any institution of higher learning.

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November 2012

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*To my parents,
Elsin and Nico Swanepoel*

*“I may not have gone where I intended to go, but I think I have ended up where I
needed to be”.*

- Douglas Adams

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ABSTRACT

Co-operative banks have proved to be of paramount importance to the South African banking sector. Although relatively new, these banks have proven that their existence, especially in South African, has encouraged millions of individuals to save, and in turn, enabled them to strive for a better standard of living.

The proper measuring and managing of operational risk within these banks will ensure the optimal functioning of these banks. Without the appropriate operational risk measurement and management, the daily operations of co-operative banks could result in losses, which would impact the members/shareholders negatively, and in turn, discourage savings.

The primary objective of this study is to identify the current manner in which co-operative banks, especially in South Africa, measure and manage operational risk. This study will discuss the current approaches used by co-operative banks and the limitations to these approaches.

The secondary objective of this study is to provide recommendations on how to improve these methods in order to measure and manage operational risk using the most effective method.

UITTREKSEL

Kooperatiewe banke is bewys as van deurslaggewende belang te wees in die Suid-Afrikaanse bankwese. Alhoewel relatief nuut, het hierdie banke bewys dat hulle bestaan, veral in Suid-Afrika, miljoene mense aangemoedig het om te spaar en sodoende te streef na beter lewenstandaarde.

Om optimale funksionering te verseker, moet operasionele risiko in hierdie banke behoorlik gemeet en bestuur word. Sonder behoorlike operasionele risikometing en bestuur, kan die daaglikse funksionering van kooperatiewe banke verliese tot gevolg hê wat die lede/aandeelhouders negatief kan affekteer, en sodoende besparing ontmoedig.

Die hoofdoel van hierdie studie is om te identifiseer hoe kooperatiewe banke, veral in Suid-Afrika, operasionele risiko meet en bestuur. Hierdie studie bespreek die huidige aanslag van kooperatiewe banke en die beperkings daarvan.

Tweedens is die doel van hierdie studie is om aanbevelings te maak oor hoe om hierdie metodes te verbeter om sodoende operasionele risiko te meet en te bestuur deur die mees effektiewe metode te gebruik.

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CHAPTER 1

INTRODUCTION AND PROBLEM STATEMENT

“The first step in the risk management process is to acknowledge the reality of risk. Denial is a common tactic that substitutes deliberate ignorance for thoughtful planning” (Tremper, 2012).

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

In order to understand the importance of measuring and managing operational risk in South African co-operative banks, it is essential to define the terms ‘co-operative bank’ and ‘operational risk’.

Devine (2009:1-2) states that a co-operative bank is a mutual society, which is formed, composed and governed by the members of the co-operative bank for encouraging regular savings and granting small loans on easy terms of interest and repayment. It is important to highlight the fact that co-operative banks consist of members who are in fact also the clients, this characteristic is one that clearly separates co-operative banks from commercial banks.

Co-operative banks encourage savings among their members, which is important from a South African perspective because poverty is of high concern in major parts of South Africa. The importance of operational risk within co-operative banks becomes evident when considering the effective functioning of co-operative banks. If co-operative banks do not function effectively, the daily operations of co-operative banks could result in losses, which would impact the members/shareholders negatively, and in turn, discourage savings.

In 2007, the Co-operative Banks Act (Act 40 of 2007) came into effect, which strives to promote and advance the social and economic welfare of all South Africans by enhancing access to banking services under sustainable conditions. However, co-operative banks in South Africa are in the early stages of development, and there is no specific framework that lends support to the members in managing risks, especially in the South African environment (Government Gazette, 2007:1).

Due to the fact that co-operative banks and their associated operational risk are in the early stages of development, a lack of expertise and limited risk frameworks limit their effective functioning. Sound operational risk management practices could have softened the impact of the 2008 global financial crisis on co-operative banks. Many events of the 2008 – 2009 global financial crises had their root causes in operational risk failures within financial firms (Shevchenko, 2010:3).

According to the Basel Committee on Bank Supervision, the standard industry definition of operational risk is (BIS, 2001b:2), “The risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events.”

From the above definition, it is apparent that the effective implementations of operational risk management frameworks in general, and more specifically within co-operative banks, are of the utmost importance. Early warning systems can be triggered, enabling management and shareholders of co-operative banks to respond timeously to deteriorations in the operating environment, and in doing so mitigate or prevent losses all together.

The reason the study of measurement and management of operational risk in co-operative banks in South Africa is of importance, is that operational risk within co-operative banks ensures the effective functioning of these banks. It is imperative to ensure that co-operative banks are managed properly and the necessary risks are addressed, because mismanagement or the failure to address these risks would impact the members/shareholders negatively, and in turn would discourage savings.

1.2 PROBLEM STATEMENT

The aim of this study is to investigate the current manner in which South African co-operative banks measure and manage operational risk.

1.3 PROJECT MOTIVATION

Van Den Brink (2002:80) proposes that the following factors primarily motivate operational risk management:

- Corporate governance requires the management of corporate to introduce an adequate internal control framework, which could be embedded in a sound control environment
- The reputation loss caused by an operational risk affects the trust relationship between clients and financial institutions
- Professional employees prefer to work in a professionally orientated organisation. If the financial organisation is highly exposed to operational risk, relatively more errors will occur. More errors will not only damage the reputation of the organisation, but also the reputation of staff. Educated staff will leave the organisation as soon as they become aware that the company has a negative reputation. Key personnel leaving the company will in turn cause more operational risk.

Effectively incorporating operational risk management into co-operative banks will assure better functioning of co-operative banks. The task of incorporating operational risk management into co-operative banks; however, is very complex due to the fact that operational risk management only recently became a major concern worldwide. As operational risk management is relatively new and complex in nature because it is difficult to measure, it becomes difficult to incorporate operational risk management in co-operative banks. The unique nature of co-operative banks also presents a setback in incorporating operational risk management in co-operative banks.

In order to ensure that international co-operative principles are recognised and implemented in the Republic of South Africa; in order to enable co-operatives to register and acquire a legal status separate from their members; and in order to facilitate the provision of targeted support for emerging co-operatives, particularly those owned by women, the Department of Finance initiated the Co-operative Bank Bill in 2005, which in 2007 became Act 40 of 2007 (Government Gazette, 2005:2).

The purpose of this Act is to (Government Gazette, 2009:12-13):

- promote and advance the social and economic welfare of all South Africans by enhancing access to banking services under sustainable conditions

- promote the development of sustainable and responsible co-operative banks
- establish an appropriate regulatory framework and regulatory institutions for co-operative banks that protect members of co-operative banks, by providing for:
 - the registration of deposit-taking financial services co-operatives as co-operative banks
 - the establishment of supervisors to ensure appropriate and effective regulation and supervision of co-operative banks, and to protect members and the public interest
 - the establishment of a development agency for co-operative banks to develop and enhance the sustainability of co-operative banks.

Co-operative banks are unique in their nature. The nature, sophistication, client base and geographical area of different co-operative banks is researched. The different skills and expertise that the members (who are in fact also stakeholders) possess is also be researched (Devine 2009:1).

The study will determine if the same principles and techniques found in the commercial-banking arena, to manage operational risk, apply to co-operative banks in South Africa.

1.4 STUDY OBJECTIVES

This research study has the following objectives:

1.4.1 Primary objective

The primary objective of this study is to research the current manner in which operational risk is measured and managed in co-operative banks globally as well as in South Africa.

1.4.2 Secondary objective

The secondary objective of this study is to research how certain operational risk practices can be improved to better measure and manage operational risk in South African co-operational banks.

1.5 RESEARCH METHODOLOGY

This study comprises a literature study as well as an empirical study.

1.5.1 Literature study

The literature study focuses on the history of co-operative banks, the differences between co-operative- and commercial banks, the manner of measuring and managing the operational in co-operative banks globally and domestically, the current rules and regulations applicable to co-operative banks in South Africa and how these rules and regulations differ from regulation in commercial banks.

1.5.2 Empirical study

A pilot experiment was conducted by means of structured questionnaires. Structured questionnaires were provided to major co-operative bank market players in order to gain an indication of the practice and current methods co-operative banks apply to regulations, together with the current methods that co-operative banks use to measure and manage operational risk.

1.6 CHAPTER LAYOUT

Chapter 1 provides an introduction and background to the study. This chapter will provide a brief overview of the study to be completed including a problem statement, project motivation, study objectives and research methodology to be used.

Chapter 2 provides an overview of co-operative banks, their terminology and history. Specific terms are defined, and different terminology used in different parts of the world is highlighted. In addition, a discussion on the history of co-operative banks is conducted to highlight the origin of co-operative banks, as well as their functioning. Finally, Chapter 2 discusses the different structures within the co-operative banking environment and highlights the characteristics and unique nature of co-operative banks in South Africa.

Chapter 3 continues to focus on the unique nature of co-operative banks and emphasises the numerous legislations and regulations to which these banks must adhere. In addition, different legislation and regulations applicable to commercial

banks are highlighted, especially Basel II, which forms the basis for Chapter 4. Chapter 3 further emphasises that there is a vast difference between co-operative banks and commercial banks.

Chapter 4 provides a discussion on operational risk as well as different methods to measure and manage operational risk. Chapter 4 also investigates global practices to manage operational risk in both the commercial and co-operative banking environments. In addition, operational risk from a Basel II perspective is investigated.

Chapter 5 discusses the empirical study and investigates operational risk in South African co-operative banks. Moreover it examines current methods used in South African co-operative banks to measure and manage operational risk, how regulations are applied in South African co-operative banks, and the challenges faced in managing and measuring operational risk.

Chapter 6 forms a conclusion to the research study and discusses the findings resulting from the empirical research. A methodology to measure and manage operational risk in South African co-operative banks is proposed, with recommendations for possible future research.

1.7 CONCLUSION

Included in this chapter was a brief introduction to the study at hand. This discussion included defining certain important terms which will be used throughout this study. These definitions included defining the terms co-operative bank and operational risk.

Other topics under discussion were the importance of co-operative banks from a South African perspective, the establishment of the Co-operative Banks Act (40 of 2007) and the importance of measuring and managing operational risk from a South African co-operative banking perspective.

In chapter 2, an overview of the history of co-operative banks, including important terminology definitions, will be provided. Chapter 2 also discusses different co-operative banking structures within the co-operative banking environment as well as the characteristics and unique nature of co-operative banks in South Africa.

CHAPTER 2

THE HISTORY OF CO-OPERATIVE BANKS

“Co-operatives provide a different way of doing things, an alternative to selfish capitalism, being focused on the collective rather than the individual” (Ashton, 2011).

2.1 INTRODUCTION

This research study aims to investigate operational risk management in South African co-operative banks. The following chapters examine, *inter alia*, the origin of co-operative banks to establish co-operative banks’ characteristics, the prevailing South African co-operative banking legislation and regulation to determine possible similarities or differences between commercial bank regulation and co-operative bank regulation, operational risk management practices pertaining to the financial industry (specifically banking), and different methods to measure and manage operational risk in co-operative banks (specifically South Africa).

Basel II requirements for operational risk management and current rules and regulations in terms of the South African Co-operative Banks Act (Act 40 of 2007) will also be investigated. An empirical study will be conducted to investigate operational risk management practices (current methods applied in South African co-operative banks to measure and manage operational risk), to determine how regulations are applied in South African co-operative banks, and to identify the challenges faced in managing and measuring operational risk. The study will conclude with a discussion on the findings of the empirical study, as well as recommendations resulting from the empirical study and recommendations for further research.

Chapter 2 defines the terms ‘bank’, ‘co-operative bank’ and ‘credit union’ in broad terms, followed by more specific definitions of a co-operative bank as it is applied in the United Kingdom and South Africa. The definition of a co-operative bank in the South African context is according to the Co-operative Banks Act (Act 40 of 2007). The provision of an explanation of the origin of co-operative banks will highlight the unique characteristics of a co-operative bank, and includes a discussion on the

different types of co-operative banking models, as well as the structure of the co-operative banking system.

It is important to comprehend fully the definitions of these concepts and to have a good grasp of the origin of co-operative banks, as these concepts explain the unique characteristics of co-operative banks *vis-à-vis* commercial banks. In this regard, Chapter 2 will show that the profit and shareholder wealth motives do not apply to co-operative banks in the same sense as they do in the commercial banking environment.

Co-operative banks play a major role in the United States and Canada in fighting extortion and enabling millions of their members to have access to consumer loans and build equity in housing and small businesses. In Canada, for example, co-operative banks have assets equivalent to R1 trillion, loans of R900 billion, savings of R950 billion and 10.6 million members. In the United States, the total assets of co-operative banks amount to R4.2 trillion with 87.4 million members. Jazayeri (2006:1) state that although situated outside of South Africa, the amount of loans, assets, and savings for these banks was quoted in ZAR. It is concluded from this information that co-operative banks, therefore, play a significant role in these economies.

Jazayeri (2006:1) argues that co-operative banking, as a financial alternative, remains largely insignificant in the South African context due to the historically un-formalised market segment and only recent implementation of necessary legislation to regulate this market. South Africa has the lowest penetration of co-operative banking in the world at 47 Savings and Credit Co-operatives (SACCOs) - with 12 000 members and R47 million in assets - and 62 rural village banks - with approximately 60 000 members and R60 million in assets. This is due to the fact that co-operative banks only came into existence with the implementation of the Co-operative Bank Act (Act 40 of 2007), which was implemented in 2008 (Government Gazette, 2008:1). SACCO's are defined later in the chapter under Section 2.2.3.

In this chapter, a discussion is conducted on the history of co-operative banks in Europe, Canada, United States of America (USA), India, and South Africa, in order to create a better understanding of the differences in the functioning and evolvement of co-operative banks around the world. By comparing the co-operative banking models, it becomes evident that, although there are differences in the functioning of co-

operative banks, the similarities are more significant. As mentioned, co-operative banks play a significant role in these specific countries' economies, therefore making them important to investigate. Co-operative banks in the Netherlands, Canada, and the USA are also more advanced, compared to South Africa, making them good candidates for this study.

Chapter 2 also provides a brief introduction to the African Confederation of Savings and Credit Co-operatives (ACCOSCA) as well as the South African Credit and Co-operative League (SACCOL). With a clear background on the history of ACCOSCA and SACCOL, it will become evident as to how co-operative banks and credit unions function in South Africa and how co-operative banks are linked to credit unions, as well as why these two entities are different from each other.

2.2 TERMINOLOGY DEFINITION

Before a study on co-operative banks can commence, it is important to understand what the term 'co-operative bank' means. Furthermore, it is important to understand that a co-operative bank differs from a commercial bank. The term 'commercial bank' should therefore also be defined to not only highlight the difference between the institutions, but also to provide a framework from which the differences between a co-operative bank and a commercial bank can be discussed. It is also of importance to define the term 'bank' to provide an understanding of the manner in which a bank conducts business.

As credit unions also have bearing on this research, specifically in the transition in terms of the Co-operative Bank Act (Act 40 of 2007), an explanation and definition of credit unions is necessary. Credit unions are discussed later in Chapter 2 as part of the co-operative bank environment. Section 2.2 defines the terms 'bank', 'co-operative bank', 'credit union', and 'commercial bank'.

2.2.1 Defining the term 'bank'

This section will provide a comprehensible definition for the term 'bank'. This will include five definitions of the term 'bank' as stated by different authors, followed by a new definition of the term 'bank'.

The first definition of a bank stated by Gurung (2004:1) reads:

A bank is an organisation whose principle operations are concerned with the accumulation of the temporary idle money of the general public for the purpose of advancing to others for expenditure.

The second definition stated by Somashekher (2004:109) reads:

A bank is a person or corporation, which holds itself out to receive from the public deposits payable on demand by cheque.

The third definition stated by Prabhu (2010:1) reads:

A bank is an establishment which makes to individuals such advances of money or other means of payment as may be required and safely made to which individuals entrust money or means of payment when not required by them for use.

The fourth definition stated by Das (1993:283) reads:

A bank is a manufacturer of credit and a machine for facilitating exchanges

The fifth and final definition stated by Morse (xxxviii:1870) reads:

A bank is a person or a company having a place of business where credits are opened by deposits or where money is advanced or loaned.

In the light of the above definitions, a single definition of the term 'bank' can be derived that states:

A bank is a manufacturer of credit, which receives deposits from the general public and advances money to other individuals for the purpose of expenditure.

2.2.2 Defining the term 'co-operative bank'

Before defining the term 'co-operative bank', an explanation of term 'co-operative' is necessary as it defines the essence and character of a 'co-operative bank'. The term 'co-operative' or 'co-operation' is derived from the Latin word *co-operãrĩ*, where the

word 'co' means 'with', and *operãrĩ* means 'to work'. Thus, co-operative or co-operation means to work together (Reddy & Saraswathi, 2007:483).

The Oxford Dictionary (2011) defines the term 'co-operative' as "involving mutual assistance in working towards a common goal and/or willingness to assist." The purpose therefore, is to work together to realise an identified, mutual benefit.

According to the International Co-operative Alliance (2006:1), a co-operative is an independent association of people united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise.

The United Nations Centre for Human Settlements (2001:5), supported by Lindquist and Restakis (2002:50), states that co-operatives are based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility, and caring for others (International Labour Force, 2001:125).

In the light of the above-mentioned definitions of co-operative banks stated by various authors, a single definition of the term 'co-operative' can be derived. A co-operative can be seen as an independent association consisting of willing individuals working together in a democratic environment in order to meet their common needs and aspirations. Co-operatives also work on the basis of co-operation and integrity.

Based on the *co-operãrĩ* principle as explained, co-operative banks have been established to address a financial need. This becomes apparent in Devine's explanation of a co-operative bank (Devine, 2009:1), which states that:

Co-operative Banks in the United Kingdom are societies composed of small tradesmen, clerks, artisans and working people generally, with the addition of sections of Society as they invite or approve, formed in town and country districts, and conducted on Co-operative principles for collecting and safeguarding the people's monetary savings on the one hand and on the other constituting funds out of which such of their members as wish to obtain loans may do so upon satisfying their Committees of Management of the utility of the purposes for which

advances are required, and of their personal honesty and ability to duly repay them.

A co-operative bank in the United Kingdom is therefore, a society where people of the same occupation or of the same community come together in order to save money, to reap a benefit, or to obtain loans upon satisfying their committees of management requirements, based on their ability to repay.

Each member contributes an amount of money each month on a date agreed upon by all members. This money, or a portion of it, may then be withdrawn by members, either in rotation or at a time of need. There is also an option of lending a small amount if the member intends to repay the loan.

Devine (2009:1-2) argues that a co-operative bank is a financial entity belonging to its members, who are, at the same time, the owners and the customers of the co-operative bank. Co-operative banks are often created by people belonging to the same local or professional community or who share a common interest and generally provide the members of that co-operative bank with a wide range of banking and financial services (International Co-operative Banking Association, 2009:2).

Another definition of a co-operative bank can be that a co-operative bank is member, promoted and functioning with the rule of one-member, one-vote, and on a no-profit, no loss basis. (Pathak, 2011:480).

The members own co-operative banks, with maximum profit not necessarily being the main objective. The aim of the co-operative bank may be to give low-cost loans to members. Usually, a trade or profession derives the membership, the most common being agriculture (Valdez and Molyneux, 2010).

The above-mentioned definitions explain the essence of co-operative banks. Members/shareholders are all willing to assist each other in trying to encourage savings among its members/shareholders. A co-operative bank is an entity where

every member/shareholder is equal, where each member/shareholder is treated fairly, and all members/shareholders work in harmony as they encourage savings among each other. It is in the members/shareholders best interests that the co-operative bank, to which they belong, remains solvent, because they are also the owners.

Co-operative banks carry the best interest of the community they serve at heart. Members of the co-operative bank usually belong to the same community or are of similar occupation. Members need to be invited or approved in order to become a member/shareholder of the co-operative bank. Education as well as training is of importance to ensure the effective functioning of co-operative banks. As mentioned, co-operative banks function on the principle of self-help and independence, which means that each member carries the responsibility to ensure the effective functioning of the co-operative bank. There are also clear differences between commercial banks and co-operative banks, as indicated later in this chapter.

2.2.3 Definition of a South African co-operative bank

The definition of a co-operative bank as applied in South Africa (Government Gazette, 2008:10), is found in the Co-operative Banks Act (Act 40 of 2007), which states the following:

According to the Government Gazette (2008:10) a co-operative bank is a co-operative registered as a co-operative bank in terms of the Co-operative Banks Act of 2007 (Act 40 of 2007) whose members:

- i. are of similar occupation or profession or who are employed by a common employer or who are employed within the same business district; or
- ii. have a common membership in an association or organisation, including a business, religious, social, co-operative, labour or educational group; or
- iii. reside within the same defined community or geographical area.

The definition of a co-operative bank, according to the laws pertaining to South Africa, states that co-operative bank members/shareholders be of the same or a similar

occupation, reside in the same community, or have a common membership in an organisation.

From the above explanations, it is evident that a co-operative bank is a very important entity because co-operative banks encourage savings among its members, and fill the gaps of banking needs of small and medium income groups not adequately met by the public and private sector banks. The broad definition of a co-operative bank - or what the term 'co-operative bank' entails is similar in various countries around the world. The fact that the members of the co-operative bank are also the shareholders, that all members/shareholders practice similar professions or live in the same geographical area are all common and very important features of co-operative banks, irrespective of the country in which the co-operative bank is situated.

A co-operative bank's members are also its shareholders or owners. Potential members need to either be invited or approved in order to become members/shareholders of a specific co-operative bank; they also need to be of the same occupation or reside within the same geographical area. These members/shareholders work on the basis of co-operation and each member/shareholder is treated fairly and equally. The members/shareholders work together to encourage savings among each other. Loans are also available to members/shareholders who have the full intention and ability to repay the loan. All members/shareholders share a common interest and have the community's best interest at heart. Profit or wealth maximisation is not a strategic objective.

The above explanation defines a co-operative bank according to the legislation pertaining specifically to South Africa. There are currently only two registered co-operative banks in South Africa, the Ditsobotla Primary Savings and Credit Co-operative Bank and the Orania Savings and Credit Co-operative Limited. Since the implementation of the Co-operative Bank Act (40 of 2007) 2008, it is understandable that there are so few registered co-operative banks in South Africa. The following bullets reflect the above co-operative banks' type, member base as well as the value of each of the co-operative banks' deposits (SARB, 2012).

- The Ditsobotla Primary Savings and Credit Co-operative Bank is a primary savings and credit co-operative bank with a member base 913 and R5 500 000 in deposits.
- The Orania Savings and Credit Co-operative Limited is a primary savings and loans co-operative bank with a member base of 359 and R36 000 000 in deposits.

After a short period after implementing the Co-operative Banks Act (40 of 2007), all eligible co-operative financial institutions were notified that they had met the criteria and were obligated to apply for registration as a co-operative bank. There were a total of 17 co-operatives that were eligible to apply for registration on 31 March 2010. During this period, two additional co-operatives met the minimum requirements and one co-operative became ineligible for registration (Co-operative Banks Development Agency: 2011:10).

As a result, on 31 March 2011 there were 18 co-operatives eligible to apply for registration as a co-operative bank. These 18 co-operatives have a total of 28 034 members and approximately R161 million in deposits (Co-operative Banks Development Agency: 2011:10).

However, during the same period only 11 applications were adequately completed which enabled conducting of pre-registration assessments. The Ditsobotla Primary Savings and Credit Co-operative Bank was the first co-operative bank to register on 17 February 2011. Orania Savings and Credit Co-operative Limited was also given approval for registration. However, the registration of Orania Savings and Credit Co-operative Limited was pending the successful reservation of its name by the Companies and Intellectual Property Commission (CIPC) and the publication of the required notice of registration in the government gazette, in compliance with the Co-operative Banks Act (40 of 2007) (Co-operative Banks Development Agency: 2011:10).

The remaining nine co-operative financial institutions did not meet the registration requirements. The reasons for non-registration have been communicated to these co-operatives. Once the reasons, as communicated, have been addressed, the supervisors may reconsider their applications for registration (Co-operative Banks Development Agency: 2011:10).

From the above mentioned, it is evident that South African co-operative banks are in the primary phase of development. It is also important to note that, although there are currently only two registered co-operative banks in South Africa, there are numerous credit unions that will also be discussed in the next section.

The subsequent paragraph will address the definition of a credit union in order to illustrate the similarities between credit unions and co-operative banks. As stated previously, credit unions are also an important factor contributing to this study, specifically in the transition in terms of the Co-operative Bank Act (Act 40 of 2007) to co-operative banks; therefore, the term also needs definition.

2.2.4 Defining the term ‘credit union’

According to the Division of Credit Unions (2005:1) and Brown (1993:89), a credit union in the USA is a government chartered and supervised co-operative thrift and loan service that financially assists its members in helping each other for emergency and/or productive purposes. A credit union is a member-owned, non-profit co-operative saving institution formed for the purposes of encouraging savings by offering a good return, using collective funds to make loans at competitively low rates to members, and providing other financial services. Members unite in a common bond of association and democratically operate the credit union under state or federal regulation.

According to Everett (1990:24), a credit union must have a common bond that can take three forms:

- Residents who live in a defined geographical area such as a housing estate or several housing estates.
- Employees who work for the same company or have the same occupation.
- Members of the same organisation such as church or a tenants’ association.

Credit unions are a good example of self-help by volunteers who see the solutions to their problems within their own grasp and resources (Everett, 1990:24).

Saving and Credit Co-operative or SACCO is another term for credit union used in South Africa to avoid confusion with the various labour movement organisations. There is no difference between a SACCO and a credit union. A SACCO is a democratic, unique member-driven, self-help co-operative. Its members, who have a similar common bond, own, govern and manage it. This common bond can be either that the members practice the same profession, or belong to the same church, labour union or social fraternity (South African Credit and Co-operative League, 2011).

A SACCO's membership is open to all members who share a common bond. The members agree to save money together in the SACCO and to grant loans to other members at reasonable rates of interest. Interest charged on loans is used to cover the interest cost on savings and the cost of administration. There is no payment or profit to outside interest or internal owners. The members are the owners and have the right to decide how their money will be used for the benefit of other members (South African Credit and Co-operative League, 2011).

SACCO's are democratic organisations making decisions in a structured democratic way. Members elect a board that in turn employ staff to carry out the day-to-day activities of the SACCO. The number of board members is between nine and 15. Members also elect a supervisory committee to perform the function of an internal audit body (South African Credit and Co-operative League, 2011).

Although co-operative banks and credit unions or co-operatives function on similar principles, they are not the same entities. Once a credit union reaches 200 or more members and R1 million or more in deposits, the co-operative must apply for registration as a co-operative bank to the supervisor within the Co-operative Banks Development Agency (CBDA). Once a co-operative bank reaches deposits exceeding R20 million, they are required to apply for registration with the South African Reserve Bank (SARB) (Calvin and Coetzee, 2010:13).

According to the Parliamentary Monitoring Group (2012:1), there are approximately 54 000 registered credit unions in South Africa (2012). This is noteworthy when taking into account that there were fewer than 5 000 a decade ago. Below are the six largest credit unions in South Africa based on the amount of assets held by each credit union's member base, loans, and deposits. These statistics regarding credit unions in

South Africa provide evidence that there are still other ‘to-be’ registered co-operative banks in South Africa and that a number of credit unions play a very important role in South Africa. The six largest credit unions in South Africa are (Co-operative Banks Development Agency: 2011:10):

- Kleinfonthein Savings and Credit Co-operative with an asset value of R36 868 864, a member base of 336, loans amounting to R31 397 439 and deposits of R36 012 545
- Oranjekas with an asset value of R33 916 311, a member base of 696, loans amounting to R19 295 098, and deposits of R32 528 364
- Alrode Savings and Credit Co-operative with an asset value of R10 314 411, a member base of 1 995, loans amounting to R6 948 027 and deposits of R6 865 888
- Motswedi Financial Service Co-operative with an asset value of R6 231 549, a member base of 3 275, loans amounting to R31 041 and deposits of R6 219 408
- Sibanye Savings and Credit Co-operative with an asset value of R6 179 579, a member base of 2 225, loans amounting to R4 009 037 and deposits of R5 146 752
- The South African Municipal Workers Union with an asset value of R5 973 414, a member base of 2 558, loans amounting to R2 208 214 and deposits R4 324 193.

As stated above, there are currently 54 000 registered credit unions in South Africa. It is not the objective of this study to discuss all the credit unions, however; it is important to develop a clear understanding of credit unions in South Africa. The six largest credit unions, as well as those credit unions that were eligible for registration in 2011, is highlighted (Co-operative Banks Development Agency: 2011:10-11):

- The Community First Federal Credit Union with an asset value of R4 342 034, a member base of 34, loans amounting to R2 567 023 and deposits of R3 502 379
- Kraaipan Village Financial Service Co-operative with an asset value of R3 526 815, a member base of 2 321 and deposits of R3 250 126

- National Education, Health and Allied Workers' Union Savings and Credit Co-operative with an asset value of R2 777 858, a member base of 2 754, loans amounting to R1 415 691 and deposits of R2 682 920
- Ziphakamise Savings and Credit Co-operative with an asset value of R1 956 691, a member base of 764, loans amounting to R1 913 691 and deposits of R2 314 630
- The Flash Savings and Credit Co-operative with an asset value of R2 977 128, a member base of 2 804, loans amounting to R270 468 and deposits of R2 073 089
- Mathabatha Financial Service Co-operative with an asset value of R1 711 834, a member base of 1 928, loans amounting to R350 837 and deposits of R1 654 548
- Beehive Savings and Credit Co-operative with an asset value of R1 208 217, a member base of 3 148, loans amounting to R333 438 and deposits of R1 350 382
- Lothlakane Financial Service Co-operative with an asset value of R1 609 986, a member base of R1 088, loans amounting to R15 563 and deposits of R1 349 298
- Boikago Financial Service Co-operative with an asset value of R1 728 608, a member base of 614, loans amounting to R706 634 and deposits of R1 345 615
- Mayibuye Savings and Credit Co-operative with an asset value of R1 475 283, a member base of 223, loans amounting to R1 054 126 and deposits of R1 315 290.

2.2.5 Defining the term ‘commercial bank’

According to Das (1993:283), a commercial bank constitutes the largest group in the entire banking world. Commercial banks play a very important role in any developed economy. The main functions of commercial banks include accepting deposits and providing short-term loans to trade, commerce, and industry. Commercial banks do not block, fix, or ‘lock up’ their capital in long-term loans. In addition, they also discount the bill of exchange, help in foreign exchange transactions, purchase and sell securities, and act as trustees and guarantors of solvency on behalf of their customers. Commercial banks act as financial intermediaries and facilitate the mobilisation of

scattered-idle capital of the nation into productive channels, as well as creating and expanding credit in order to smooth the process of business transaction.

Another definition according to Somashekar (2009:1) states that a commercial bank is a profit-seeking business firm, dealing in money and credit. It is a financial institution dealing in money in the sense that it accepts deposits of money from the public to keep in custody for safety. Commercial banks also deal in credit, to be exact, they create credit by making advances from the funds received as deposits to needy individuals. It thus functions as a mobiliser of savings in the economy. A bank is therefore like a reservoir, savings and idle surplus money of households flow into the bank, and loans are provided on interest to entrepreneurs and others who need funds for investment or productive uses.

A commercial bank can also be seen as an institution that operates to earn a profit. It accepts deposits from the general public and extends loans to households and firms. Commercial banks consist of 'accepting', for the purpose of lending or investments, deposits of money from the public repayable on demand or otherwise, and can be withdrawn by cheque, draft, order, or otherwise (Deepashree, 2007:26-5).

From the three definitions stated above by different authors, the definition of a commercial bank can be seen as an institution that is essentially profit driven and which constitutes the largest group in the banking world. Commercial banks are very important to the developed economy, dealing in credit and money. Some of the functions of Commercial banks include accepting deposits and providing loans. Commercial banks accept deposits in order to keep the money safe and enabling them to grant loans to needy individuals, firms or households. These loans will then be repayable on demand or according to the contractual terms plus interest. Commercial banks play a very important role in the modern economy and without them modern industrial economy cannot exist.

There are clear differences between commercial and co-operative banks. Co-operative banks can be seen as an entity with the foremost purpose of serving and helping the community. They also require a profit in order to function, however, profit is not the sole purpose of a co-operative bank. A commercial bank, on the other hand, is profit driven, taking deposits from individuals who desire safekeeping of their money and

providing loans to individuals or firms who are in need of money and charging them interest; they in essence deal with money and credit. Deposits accepted by commercial banks are also used for investments, which in turn will also render a profit.

In order to be able to create an understanding of the commercial banking environment, it is important to introduce some remarkable facts regarding commercial banks. These facts regarding the number of registered commercial banks, the market capitalisation, as well as the number of shareholders of each bank, will become important when discussing the differences between the commercial banking environment and the co-operative banking environment.

The discussion to follow includes the number of registered banks currently in South Africa, the six largest as well as the three smallest banks in order of market capitalisation. The listing of the banks will be in order of market shares and number of shareholders they have, and finally there will be a discussion on the meaning of the word 'bank' in a South African context.

According to the South African Reserve Bank (2011:6), there are currently 16 registered banks in South Africa as from July 2004. Of these 16, six are foreign controlled banks. The six largest commercial banks in South Africa in order of market capitalisation are (South African Reserve Bank, 2011:7):

- The Standard Bank of South Africa with a market capitalisation of R164.52 billion
- FirstRand Limited with a market capitalisation of R126.01 billion
- ABSA Bank Limited with a market capitalisation of R107.48 billion
- Nedbank Limited with a market capitalisation of R78.28 billion
- Bidvest Bank Limited with a market capitalisation of R53 billion
- African Bank Limited with a market capitalisation of R28.78 billion.

The three smallest commercial banks in South Africa in order of market capitalisation are (South African Reserve Bank, 2011:7):

- Mercantile Bank Limited with a market capitalisation of R1.3 billion

- Grindrod Bank Limited with a market capitalisation of R8.78 billion
- Sasfin Bank Limited with a market capitalisation of R9 billion.

The six largest as well as one of the three smallest banks will also be listed with regard to the number of issued shares and shareholders these banks had for the year ended 31 December 2010. This information was collected from each bank's respective annual reports.

- The Standard Bank of South Africa with a shareholder base of 69 956 and issued shares of 1 585 000 000
- FirstRand Limited with a shareholder base of 35 492 and issued shares of 5 637 942 000
- ABSA Bank Limited with a shareholder base of 40 372 and issued shares of 718 210 043
- Nedbank Limited with a shareholder base of 18 252 and issued shares of 514 891 827
- Bidvest Bank Limited with a shareholder base of 1 965 and issued shares of 212 189 689
- African Bank Limited with a shareholder base of 18 316 and issued shares of 804 175 200
- Mercantile Bank Limited with a shareholder base of 6 246 and issued shares of 3 938 524.

It is evident that commercial banks play a significant role in South Africa when taking into account the sheer size of these banks, especially compared to co-operative banks or credit unions. One fact about commercial banks is that they make use of branch networking, where co-operative banks do not. Large commercial banks often have an extensive network of branches, frequently covering all major cities in a country.

Branch networking is the computerisation and interconnectivity of geographically spread individual bank branches, into an integrated system using Enterprise Networks

or Wide Area Networks for creating and using of consolidated customers' data or information (Omorowa, 2011:13). Branch networking offers faster speed of conducting inter-branch transactions, as it has removed the dilemma of distance and uses time efficiently, especially for customers who will not have to travel to any particular branch of his bank as the several networked branches operate to serve the banking public as one system (Omorowa, 2011:13).

Branch networking can also be defined as the use of local but connected outlets that provide the bank with the opportunity to serve a wide geographical area. A centralised infrastructure or a head office supports each network. This head office provides human resources, information technology and supply chain management support (Advertising Glossary, 2006).

The reason for mentioning this information regarding branch networks used by commercial banks is to highlight the difference between the functioning of commercial banks and co-operative banks. Commercial banks serve a wide geographical area with the help of branch networks, whereas co-operative banks are more locally focussed, because they do not make use of branch networks.

Understanding the meaning of the word 'bank' in a South African context is extremely important. To avoid confusion between the natures of commercial and co-operative banks it becomes necessary to define clearly all relevant terms. The term 'bank' is a very significant term to define and understand, especially in a South African context because of the nature of this study. In Chapter 3, the differences between commercial and co-operative banks become more apparent when discussing the legislation and regulatory aspects. However, a clear definition of the terms is necessary in order to create a clear foundation on which to build, in order to achieve the main goal of this study, which is to understand fully the functioning of co-operative banks, as well as to understand the differences between commercial and co-operative banks (discussed in Section 2.2.5).

The South African Reserve Bank (SARB) is responsible for banking regulation and supervision in South Africa. The reason for this is to achieve a sound and efficient banking system in the interest of the depositors of banks and the economy as a whole, which is achieved by issuing banking licences to banking institutions and monitoring

their activities in terms of the Banks Act (94 of 1990), as well as the regulations relating thereto (South African Reserve Bank: 2012).

According to the Banks Act (94 of 1990), no public company is allowed to act as a bank or to conduct any business of a bank unless that company is registered as a bank under the Banks Act (94 of 1990). If however, a person wishes to act as a bank, he/she must first apply to the Registrar for authorisation to establish a bank.

The Banks Act (94 of 1990), states that should the Registrar have reason to believe that any company is, however; conducting the business of a bank, the Registrar may apply to the High Court for an order to prohibit the company from continuing to conduct this business or stop all activities conducted by this company until this matter is investigated. The High Court may order a relevant punishment to a company found guilty of this offence.

The business of a bank includes the acceptance of deposits from the general public, the soliciting or advertising for deposits, the utilisation of money or interest income, the obtaining of money through the sale of an asset to any person or other bank, and any other activities approved by the Registrar.

It is, therefore, evident that no person, according to law, may involve themselves in the activities of a bank if he/she is not a registered bank.

The following section focuses on the differences between co-operative banks and commercial banks. It is important to understand the differences between these two separate entities since co-operative banks play a vital role in the banking sector as they provide much needed services to certain individuals that commercial banks do not provide. It is also very necessary to create a clear and solid foundation on which to build on in later chapters regarding the differences between the environments in which these two banks function.

2.2.6 Differences between co-operative banks and commercial banks

According to Adukia (2009), commercial banks are by far the most widespread banking institutions. They provide major products and services as well as run on commercial lines for profits of the organisation for its shareholders.

A co-operative bank on the other hand operates for the benefit of the group of members of the co-operative body. A co-operative bank distributes only a very small portion of its profit as dividend, retaining a major portion of it in business (Adukia, 2009).

Valdez and Molyneux (2010), supported by Sethi and Bhatia (2007:35) states that the nature, scope and functioning of commercial and co-operative banks vary in numerous ways. The main differences between commercial banks and co-operative banks are set out in Table 2.1 below:

Table 2.1: Differences between commercial and co-operative banks

Commercial banks	Co-operative banks
Function on business lines, profit driven.	Work on principles of self-help and mutual cooperation for the benefit of the members and the community which they serve.
Are organised as joint stock companies or registered as public corporations under separate acts of parliament.	Are established under the co-operative society acts of different states.
Are organised on a unitary basis.	Depending on the country, co-operative banks have a three-tier set-up state: Co-operative bank at the apex; the district co-operative bank at the district level; and the primary credit societies at the village level.
Branch network is spread far and wide within the country and some banks have set up branches abroad.	Some banks' area of operation is restricted to a particular local boundary, district, or state, serving only a specific community.
Traditionally have been urban oriented, though now they also finance the rural sector.	Are rural orientated and have been financing agriculture and allied activities.

Commercial banks	Co-operative banks
The main objective of commercial banks is to accept deposits for the purpose of lending to industry and commerce.	Main objective is to accept deposits from their members and the public in order to give low-cost loans to members/shareholders in need.
Large amounts of funds are available and at the disposal of commercial banks.	Limited amounts of funds are available at the disposal of co-operative banks.
The commercial banks provide a lower rate of interest on deposits compared to co-operative banks.	Co-operative banks provide a higher rate of interest on deposits compared to commercial banks.

(Source: Compiled by author Valdez and Molyneux (2010) and Sethi and Bhatia (2007:35)

The International Co-operative Banking Association (2009:2) argues that in most countries, banking authorities supervise and control co-operative banks and have to respect prudential banking regulations, which put them at a level playing field with commercial banks. Depending on the country, state entities directly implement this control and supervision, or delegate these responsibilities to a co-operative federation or central body. South African co-operative legislation and regulation are discussed in greater detail in Chapter 3.

Co-operative banks are deeply rooted in local areas and communities, and are involved in local development contributing to the sustainable development of communities, as the members and management board of the co-operative bank usually belong to the communities in which they exercise their activities. By increasing banking access in areas or markets where other banks are scarcer – farmers in rural areas or middle- or low-income households in urban areas – co-operative banks reduce banking exclusion and foster the economic ability of millions of people. They play an influential role in the economic growth in the countries in which they operate, and increase the efficiency of the international financial system (International Co-operative Banking Association, 2009:2).

2.2.7 Summary

Section 2 discussed above defines the character as well as the nature of co-operative banks. The term ‘co-operative’ explains what co-operative banks strive to achieve as an entity, which strives to serve the community. It is not primarily a profit driven institution.

The main difference between co-operative and commercial banks is that, although commercial banks are profit driven, co-operative banks have the interest of the community at heart. Commercial banks also have shareholders while co-operative banks have members who are also the owners of the bank.

Commercial banks also provide very different services to co-operative banks. Commercial banks provide services to the public with a wide variety of products, while co-operative banks provide specific services according to the needs of the members, these services are important because commercial banks do not provide them.

Another difference between commercial and co-operative banks is that a percentage of profits made by a commercial bank is given to the shareholders in the form of dividends, while the profits made by the co-operative bank are for the advantage of the members.

Commercial banks also provide services to a large geographical area, while co-operative banks provide services to a specific population or community, and finally, regulation in South Africa applicable to commercial banks differ to that applicable to co-operative banks. Chapter 3 examines this in more detail..

The above discussion defines the character as well as the nature of co-operative banks. The term ‘co-operative’ explains what co-operative banks strive to achieve as an entity that strives to serve the community. It is not primarily a profit driven institution.

The importance of co-operative banks is because they provide services to individuals not provided by other banks. The creation of co-operative banks was to ensure the economic advancement of their members by means of mutual activity. The basis of

co-operative banks is that of self-help through mutual aid because individually they are economically vulnerable. The co-operative banking system supplements the efforts of the commercial banks in mobilising savings and meeting the credit needs of the local population.

Traditionally member-owned co-operative banks have played a major role in smoothing the challenges of rapid economic transformation and have contributed to a high degree of economic and social integration. Historically, the establishment of co-operative banks was to offer lower interest rates on loans as compared to rates offered by commercial banks. To this end, the structuring of a co-operative bank was as a mutual company owned by its members. Contrary to the situation of commercial banks, co-operative banks do have access to external funding in the form of voluntary capital injections by the members of the co-operative bank. Although co-operative banks came into existence more than a century ago, today they are still a very important part of society (Westman, 2009:3).

It is evident that commercial banks are more sophisticated than co-operative banks, especially in South Africa. This section has placed emphasis on the vast differences that exist between commercial and co-operative banks. These differences will form the foundation to the discussion on the legislation pertaining to each entity, which will follow in Chapter 3.

The subsequent section will discuss the origin of co-operative banks, which will include how co-operative banks came into existence and how co-operative banks changed the lives of millions of people struggling to obtain loans at a reasonable rate of interest due to a change in economic circumstances.

2.3 THE ORIGIN OF CO-OPERATIVE BANKS

2.3.1 The early periods

Germany is called the birthplace of the urban co-operative credit movement in the world. In 1848, Francis Heack established the first co-operative credit society. This credit society opted as an investment organisation rather than a co-operative (Kulkarni, 2000:48).

Following Francis Heack, Satgar (2003:7) explains that the co-operative society or 'peoples bank' as it was known, was established by a German civil servant, Hermann Schultze-Delitzsch (1803 – 1883), in 1850. In 1864, Friedrich Raiffeisen (1818 – 1888), the mayor of Heddesdorf, Germany, formed the first credit union. Raiffeisen also established the first credit union central bank in 1876, and a year later, an organization for credit unions – a federation.

Most continental European banks were also established based on the ideas of Hermann Schultze-Delitzsch and Friedrich Raiffeisen. Both men were moved by the poverty and mystery they observed, especially during the famine or food crisis of 1848, and noted that ordinary people had no access to credit except perhaps, from usurer lenders. They independently started to promote the idea of credit co-operatives or credit unions during the middle of the nineteenth century. Schultze-Delitzsch aiming to help urban small business owners and artisans and Raiffeisen seeking to assist the rural poor (Fonteyne: 2007:8).

According to Harms (2007:2), peasants, farmers and craftsmen in the nineteenth century in Germany were affected by deep social and economic changes, like rapid economic growth and modernisation led by heavy industry. Rapid economic growth generally propagated free trade and competition. In the agricultural sector, farmers had to change their production structures from subsistence farming (production just for their own survival) to production for the market. Following these developments, the importance of money and capital increased considerably, which resulted in a demand for more capital.

Harms (2007:2) also argued that similar developments occurred in urban areas. Craftsmen and retailers were seeking money and loans to expand their production, but in order for loans to be obtained collateral had to be provided, which was a challenging task. Existing banks preferred to invest in the expanding industrial sector due to higher returns that could be earned.

The co-operative idea was developed to solve the problem of obtaining loans at reasonable rates of interest, as well as obtaining services not provided by commercial banks. Craftsmen, small and medium enterprises and traders, as well as farmers,

established their own co-operative banks, a process in which they were assisted by founders who did not necessarily come from the same professions (Harms, 2007:2).

These craftsmen, small and medium enterprises and traders, as well as farmers, all benefited from establishing their own co-operative bank, as they now had access to loans which they could repay with a lower interest rate making it more affordable to them. This enabled them to continue, or even expand their production, which was necessary due to the expanding economy and higher demand for certain products (Harms, 2007:2).

Fonteyne (2007:8), argues that this rationale was similar to the one behind current microfinance initiatives in developing countries, namely to provide people with the tools and resources to collectively and individually help themselves.

In light of the above discussion on the origin of co-operative banks, the following section will provide an in-depth discussion on how co-operative banks originated in certain specified countries. The countries under discussion will be Europe, Canada, the United States and India. Finally, specific focus will be directed towards the origination of co-operative banks in South Africa as this study aims to research operational risk practices in this environment.

The following section discusses the origin of co-operative banks in Europe, specifically Germany and the Netherlands. As mentioned, co-operative institutions worldwide have their origin in Germany, therefore; in order to create a solid foundation to the history of co-operative banks it is important to investigate where the idea of co-operative institutions came from.

It is also important to investigate the origin of Rabobank, the largest co-operative bank to date. This co-operative bank is situated in the Netherlands; the importance of Rabobank becomes clear when looking at the sheer size of this bank and all the services they provide, as well as the structure in which they operate. South African co-operative banks are not to be compared with this bank due to the fact that Rabobank is a very sophisticated bank and has been in operation since the late 19th century, while co-operative banking in South Africa is relatively new. However, a discussion on the origin, and later on the functioning of Rabobank, remains important because, although South African co-operative banks are not on the same level of

sophistication as Rabobank, at some future date South African co-operative banks might be able to incorporate some of the functioning features used by Rabobank.

Credit co-operatives have been growing strongly in Europe during the post-war period. In Europe as a whole, there were around 11 000 local and regional co-operative banks in 1997, with over 56 000 outlets, 33 million members and a staff of more than 400 000. In 1991 the combined assets were €1 100 billion. They also have a market share in the European Union of 17% of savings, ranking third after the commercial banks, which have 44%, and the savings banks with 23% (Birchall, 1997:113).

Rabobank is a private Dutch, triple-A rated, international financial service provider with a long history of agricultural lending in the Netherlands. Rabobank has \$500 billion in assets with operations in 35 countries. It has a 25-year history in the United States, generally financing larger agribusinesses and co-operatives. In recent years, Rabobank has moved into farm-level lending in the United States with the purchases of Valley Independent Bank in California in 2002, Lend Lease Agri-Business in St. Louis for \$45 million in 2003, and Ag Services of America in Cedar Falls, Iowa for \$47 million in 2003 (Bishoff, 2008:78).

2.3.2 The origin of co-operative banks in Europe

In many cases the development of co-operative banking was initiated, nurtured and supported by outside forces, including governments. In France, government involvement has been very extensive throughout the history of the co-operative banking sector. The Finnish co-operative banking sector was set up in a top-down process with government support, and Portuguese agricultural credit co-operatives have grown since the 1970s, in part credited to government support (Fonteyne, 2007:8-9).

In several countries, including Italy, Belgium, and France, the post-Rerum Novarum catholic movement supported the development of co-operative banks. In addition, many co-operative banks have been set up by, or with the support of trade unions or agricultural associations, and have maintained close links with these organisations (Fonteyne, 2007:8-9).

Co-operative banks were created because of the fact that the 19th century was a period of development in the industrial-, transportation-, and trading sector in Europe. This development called for new methods of acquiring capital and organising labour (Phol & Freitag, 1994:781).

The co-operative banking sector in Europe was created in response to these economic challenges and the deprivation large parts of the population faced in the 19th century and early 20th century. Most continental European co-operative banks were established on the basis of the ideas of Hermann Schultze (1808 – 1883) and Friedrich Wilhelm Raiffeisen (1818 – 1888). Co-operative banks were established to overcome problems of opportunistic behaviour by borrowers. Raiffeisen experienced such opportunistic behaviour first-hand when he established his first credit institution, which provided loans to the poor, financed by funds collected from wealthy donors. However, the institution failed, as many borrowers could not repay their loans, which resulted in the loss of interest from the donors (Fonteyne, 2007:8-9).

The first credit co-operatives were established in Germany in the 1840s. The first co-operatives were urban credit co-operatives founded by Hermann Schulze, which catered to the needs of artisans and small traders. The first rural credit co-operatives were established in 1864 by Friedrich Wilhelm Raiffeisen and Wilhelm Haas. These institutions were oriented towards farmers and individuals living in small villages (Vittas, 1995:22).

By the mid-1860s, 80 urban credit co-operatives were operating with approximately 20 000 members. A general association of trading and economic co-operatives was created in 1864 to represent their joint interests. A central co-operative bank was also established in that same year in Berlin as a partnership limited by shares. Although the purpose of the central co-operative bank was to act as a clearinghouse for urban credit co-operatives, which meant accepting their deposits and granting them credit on their current accounts, urban credit co-operatives made little use of the services provided to them by the central co-operative bank. This led the central co-operative bank to engage in ordinary commercial and investment banking, however; the bank suffered substantial losses and merged with Dresdner Bank, one of Germany's largest banking corporations, in 1904 (Vittas, 1995:22).

The problems faced by the central co-operative banks did not influence the rapid growth experienced by the urban credit co-operatives and in 1870 there were 740 urban credit co-operatives with 300 000 members. By 1913, there were 1 500 urban credit co-operatives, with more than 800 000 members (Vittas, 1995:22).

The number of rural credit co-operatives however, also increased very rapidly. There were 30 such co-operatives by 1866 and approximately 100 by 1872, when Raiffeisen created the first central co-operative bank for rural credit co-operatives at Neuwied. Two more central co-operative banks were founded by Raiffeisen in quick succession, and all three were united to form the German Agricultural General Bank in 1874 (Vittas, 1995:22).

Both urban and rural co-operatives initially had unlimited liability, however; after the passing of the law on credit co-operatives in 1889, most urban co-operatives gradually adopted limited liability, but rural co-operatives continued to rely on unlimited liability (Vittas, 1995:22).

By 1890 there were approximately 1 700 rural credit co-operatives and by 1913 there were approximately 17 000 with a total membership of 1.5 million. Only 19 rural credit institutions out of 10 000 were involved in bankruptcy proceeding between 1895 and 1910. However, there were 69 cases of insolvency among approximately 1 000 urban credit co-operatives during that same period (Vittas, 1995:23).

In 1898 two very important central co-operative banks were founded, the Co-operative Centrale Raiffeisen Bank in Utrecht and the Co-operative Centrale Boereleenbank in Eindhoven. They would later merge to form Rabobank, the largest co-operative bank to date (Rabobank History Department, 2009:5).

By 1913, there were 52 central co-operative banks and two national co-operative banks, the Centrale Raiffeisen Bank and the Prussian Central Co-operative Bank. The total assets of all credit co-operatives accounted for 8% of all banking assets in this year (Vittas, 1995:24).

By 1972, the Centrale Raiffeisen Bank and the Co-operative Centrale Boereleenbank merged to form the Co-operative Centrale Raiffeisen-Boereleenbank. This bank became generally known as Rabobank due to the combination of the first two letters

in the name of each bank. The city of Amsterdam became the legal domicile and the new centralised bank was given the name Rabobank Netherland in 1980 (Rabobank History Department, 2009:5).

Information from the RaboBank History Department (2009:5) further states that while the name Rabobank International only dates back to 1996; Rabobank's international activities actually began many years earlier. In 1981, Rabobank opened a branch office in New York and soon expanded to Europe, North America, Asia, South America, and Oceania.

Rabobank is the market leader in the Netherlands in almost all areas of financial services. While Rabobank has historically been particularly strong in the field of agricultural financing, the relative share of agricultural lending began to decrease after 1980. Even though the relative share of agricultural lending has somewhat diminished, Rabobank's share in the agricultural sector still fluctuates at around 84% (Rabobank History Department, 2009:5).

The non-agricultural small- and medium-sized enterprise (SME) sector is also gradually becoming a key target group of the co-operative banks. The market share in this sector has remained at approximately 38% for years, with Rabobank holding the largest market share among businesses of between two and ten employees. In 2009, Rabobank was not only market leader in both the agricultural sector and the SME sector, but also in the retail market. Since the introduction of the salary (current) account in the Netherlands in the 1960s, the number of retail customers has grown enormously (Rabobank History Department, 2009:5).

Home mortgage loans are one of the main products Rabobank provides for retail customers. It is the market leader in the mortgages market with a market share of more than 25% (Rabobank History Department, 2009:5).

By 2002, the membership of Rabobank had reached one million. In approximately two years, the membership of Rabobank had doubled. By early 2009, the total membership had reached 1.7 million (Rabobank History Department, 2009:5).

The following section will provide insight into the origin of co-operative banks in Canada. There will be some references made to the European co-operative banking

models, as well as some references to the laws implemented in the United States, which will be discussed in detail in Section 2.3.4.

2.3.3 The origin of co-operative banks in Canada

Before the origin of co-operative banks in Canada can be discussed, it is important to mention that unlike South Africa, Canada and the United States, which will be discussed in later sections, use the terms ‘co-operative bank’ and ‘credit union’ without any distinction.

This section provides insight into the origin of co-operative banks in Canada, however; there will also be some references made regarding the functioning of co-operative banks in the United States because of the similar nature of co-operative banks in Canada and the United States. Although co-operative banks in Canada and the United States share similar features, they also have some distinctive differences. Co-operative banks in the United States are primarily under state supervision while in Canada they operate under provisional laws. The provincial law only requires an audit on their operations once a year (Merrett & Walzer, 2004:42).

The financial co-operative movement in Canada emerged at the turn of the century because the urban working class and farmers could not obtain the loans they required. The movement started in Canada under the direction of Alphonse Desjardins who founded the first ‘peoples bank’. In contrast to the European credit unions mentioned in Section 2.3.2, these organisations did not follow one school of thought, but took what Alphonse Desjardins believed were the benefits of each of the European types and used them to form the co-operative bank. These co-operative banks were set up to serve the needs of both the urban and rural communities, in contrast to the European counterparts who serviced only one type of community depending on the founder of the movement. Desjardins also promoted the organisation using French-Canadian nationalism and the Catholic Church (Ward & McKillop, 2002:5).

In Canada only three provinces have passed the necessary co-operative banking legislation, these provinces are Quebec, Nova Scotia and Alberta. Co-operative banks in Quebec and Nova Scotia have assumed similar forms to the co-operative banks of the United States, while banks in Alberta have assumed forms resembling the co-operative banks of the European society (Bossoutrot, 2005:29).

According to the Christian Social Union (1995:228-229), the first Canadian ‘people’s bank’ was established in December 1900 at Levis, a suburb of Quebec, with a very moderate share capital. The first year’s results seemed satisfactory, recording a total of 50 loans made to a collective amount of about £700. In 1902 the collective amount of loans was £4 000 and in 1904 amounted to £6 800. However, the difficulty still was that legislation did not exist; a co-operative banking act was absent. Overcoming this difficulty in 1905 became easy because the success of the bank was too palpable to leave the legislator any pretext for refusing a law.

Neifeld (1979:22) supported by Naylor (2006:166), states that by 1914 there were 122 co-operative banks in Quebec, and only by 1918 was the first co-operative banks formed in Alberta. In 1932 the Government of Quebec granted a yearly subsidy of Can\$20 000 to further the development of the co-operative banks established in Quebec. This money was devoted to propaganda and supervision. In 1933, the co-operative banks established in Quebec had a member base of 36 500 of whom 10 800 were borrowers and 11 400 loans were made that year. In that same year the first co-operative bank in Nova Scotia was established. By 1934 there were approximately 200 co-operative banks in Quebec, and by January 1936 it was reported that there were 48 co-operative banks in Nova Scotia which had made Can\$200 000 in loans and Can\$175 000 in savings, as well as 36 co-operative banks in Alberta with a membership of approximately 1 600 (Neifeld, 1979:25).

In 1946 Vancity was formed, which by 2007 was Canada’s largest co-operative bank with \$12.3 billion in assets, more than 381 000 members, and 57 branches throughout Greater Vancouver, the Fraser Valley, and Victoria. Vancity is part of a network of co-operative banks in communities across Canada that is affiliated with the Credit Union Central of Canada. Another large group is affiliated with the movement of Desjardins, the umbrella organisation for co-operative banks in francophone Canada. Desjardins is the largest employer in Quebec, and the sixth largest financial institution in the world, with assets of \$144 billion in 2007 and \$190 billion in 2011. Credit co-operatives are the leading financial institutions in Quebec where they serve nearly every citizen in the province (Quarter *et al.*, 2009:16).

The following section will discuss the origin of co-operative banks in the United States. As mentioned in Section 2.3.3 there are some similarities between the co-

operative banks operating in Canada and those operating in the United States, however; there are also some specific differences, including laws and regulations. It is important to remember that the terminology used in the United States differs from that used in South Africa. In the United States, there is no difference between a credit union and a co-operative bank. Section 2.3.4 uses the term credit union because the United States is more familiar with the term credit union than co-operative bank.

2.3.4 The origin of co-operative banks in the United States

Influences on the United States' credit union movement initially originated from Canada. Alphonse Desjardins assisted in the original set up of the movement in the United States in 1909. However, the growth and development of people's co-operative banks within the United States can be attributed mainly to the pioneers Pierre Jay and Edward Filene. By 1909, Pierre Jay, aware of the success, benefits and popularity of people's co-operative banks in Canada, set about forming a people's co-operative in Massachusetts (Ward & Mckillop, 2002:4-5).

The first people's co-operative bank in the United States dates back to 1909. In 2004, there were 9 500 credit unions with assets in excess of \$670 billion, serving 87 million members. The legal framework for these institutions began in 1909, spurred by activists and philanthropists concerned by the high interest being charged to the working class, through the Massachusetts Union Credit Act that served as a basis for subsequent legislation on the matter (Delfiner *et al.*, 2006:8).

Credit unions developed rapidly in the 1920s, as saving capacity increased and people needed consumer credit at affordable rates. Traditional banking had not penetrated this segment. In 1930, 32 states had laws to regulate credit union activity within their territory, with a total of 1 100 credit unions (Delfiner *et al.*, 2006:8).

In 1934, President Roosevelt signed the Federal Credit Union Act, forming a national system to charter and supervise federal credit unions. Credit unions in the United States account for approximately 10% of all consumer savings and deposits. Credit union members peaked in 1969 at 23 690 and have since declined by 3% (Interim Report of the Commission on Credit Unions, 2011:21).

In 1970, the National Credit Union Administration (NCUA) became an independent federal agency and the National Credit Union Share Insurance Fund (NCUSIF) was established by national credit unions to insure and safeguard members' deposits. During the 1970s, legislation increased the range of products that credit unions could offer to include mortgage lending and share certificates, which led to rapid growth by these institutions. The credit union sector in the United States also grew rapidly as a result of strong competition and the desire to be financially independent (Delfiner *et al.*, 2006:8).

The 1980s were notable for financial deregulation, increased flexibility for mergers, and expanded member services. High interest rates and unemployment in the early 1980s brought about supervisory changes at the same time as losses were recorded by the deposit insurance fund, which led the community to call on Congress to approve a plan to recapitalise the fund. In 1985, credit unions deposited 1% of their shares to capitalise the National Credit Union Share Insurance Fund, which is now backed by the United States Government. (Delfiner *et al.*, 2006:8-9).

Between 1992 and 2002, the total loans, as a percentage of total assets of federally insured credit unions, grew. In 1992, loans made up 54% of credit union assets and 16% were in United States government and agency securities, while in 2002 loans represented 62% of industry assets, and United States government and agency securities represented 14% of total assets (Hillman *et al.*, 2003:12).

In 2011, 105 credit unions had closed - healthy credit unions chose to merge, and only 12 credit unions were liquidated and nine being placed in conservatorship (Interim Report of the Commission on Credit Unions, 2011:21).

2.3.5 The origin of co-operative banks in India

This section provides a discussion on the history of co-operative banks in India. Indian co-operative banks have a history dating back almost 100 years. The co-operative banks are an important constitute of the Indian financial system. Co-operative banks in India play an important role in rural financing. The role these co-operative banks play continues to be important, even today. The businesses of co-operative banks in urban areas have also increased phenomenally in recent years due

to the sharp increase in the number of primary co-operative banks (Kakulla & Reddy, 2011:1).

Gurusamy (2009:515) supported by Muralidharan (2009:10), argues that although the co-operative movement originated in the West, the importance that co-operative banks have assumed in India unparalleled anywhere else in the world. Therefore, it is important to examine the history of co-operative banks in India, since co-operative banks play such a significant role in the Indian economy.

According to Sharma (2008:21), Indian co-operative credit institutions fall into two categories, namely urban co-operative banks and rural co-operative credit institutions. It is important to note that a credit union or credit institution and co-operative bank are two different entities in India. As mentioned in Section 2.3.3, this is not the case in Canada or the United States where the terms ‘credit union’ and ‘co-operative bank’ are used without distinction. In India only urban co-operative banks, state co-operative banks and central co-operative banks are qualified to be called banks, as per the Banking Regulation Act, 1949. Rural co-operative credit institutions are not banks they are merely credit unions.

The first part of this section will discuss the history of credit unions, and thereafter the history of co-operative banks in India. The study of the significance of the history of credit unions and co-operative banks in India reveals the emergence of an unprecedented force for social change through worker ownership and control. Many aspects need consideration in order to understand the contribution of urban credit co-operatives in India. It is worthwhile to examine the history of how these credit unions came into existence in India since they hold the social responsibility to fulfil the financial responsibility and investment needs of the ‘small man’ of the Indian society.

Madan (2007:297) supported by Kulkarni (2000:48), states that the origin of the urban credit movement in India can be traced to the close of the nineteenth century. Following the success of the urban credit institutions organised by Hermann Schultze-Delitzsch in Germany and Luigi Luzatti in Italy during the period of 1855 to 1885, some middle class Maharashtrian families who settled in the former Baroda State started a mutual aid society in Baroda on the fifth of February 1889 under the guidance of Shri Vithal Laxman Kavthekar. When the Co-operative Credit Societies

Act of 1904 conferred legal status on credit societies, the first urban co-operative credit society was registered in October 1904 at Conjeevaram, in Madras province.

Subrahmanyam and Gajanana (2000:47) supported by Misra (2010:14) state that the British, primarily to aid small-scale farmers and improve access to rural credit, introduced co-operative credit societies in India. The Co-operative Societies Act adopted in 1904, only included credit co-operatives. In the years 1912 and 1919 respectively, the act was amended to grant the registration of non-credit co-operatives at the state level, including housing and its administration, allowing them to adapt the legislation to prioritise local needs (Mystry *et al.*, 2011:9).

According to Madan (2007:298), the development of urban credit co-operatives did not receive much attention until 1915. The report of the Committee on Cooperation, published in 1915, states that “Urban co-operative societies might serve a useful purpose in training the upper and middle urban classes to understand ordinary banking principles” (Kulkarni, 2000:49).

Madan (2007:298) also states that many urban credit co-operatives came to be organised in Bombay during the period of 1919 to 1938. The economic boom created by the Second World War (1939 to 1945) provided a stimulus to the growth of urban credit co-operatives in India. The failure of the local joint stock banks in India also gave an impetus to the growth of urban credit co-operatives. Most of these joint stock banks were established under the provisions of the Indian Companies Act of 1913, which was amended in 1934. A joint stock bank is any bank that is a joint stock company (Kaptan, 2002:4).

Dragneva (2007:233) states that a joint stock company is a company whose capital is divided into shares, and the liability of the shareholders is limited to the par value of the shares respectively held by them. A joint stock company is considered a trading company, regardless of the fact that operations conducted by it are not of a trading nature. There must be no less than three members of a joint stock company (Levi, 1863:123).

During the post-war depression, many Indian joint stock banks failed. The Indian Central Banking Inquiry Committee summarised the failures of these banks as

resulting mostly from individual imprudence and mismanagement (Schrader, 1997:95).

According to the Rana (2011:10) in the origination phase, urban co-operative credit societies came to be organised on community basis, confining their lending operations to meeting the consumption-oriented credit needs of their members. In the initial phase, many societies used the term 'bank' very loosely. Many urban banks, which were organised in the early part of this century, were essentially credit societies, but later converted themselves into urban co-operative banks. Urban credit societies, which were not engaged in any banking functions, also used the word 'bank' or 'banker'.

There was no clearly defined concept of urban co-operative bank. It was the Joint Reorganisation Committee, popularly known as the Mehta Bhansali Committee (1939) in the then Bombay province, which first attempted to define an urban co-operative bank. It defined a credit society as an urban co-operative bank whose paid-up share capital was 20 000 Rupees (hereafter referred to as Rs.) or more, and was accepting deposits of money on current accounts or otherwise, subject to withdrawals by cheque, draft or order (Reserve Bank of India, 1999:2).

In the Madras province, urban co-operative credit societies accepting current account deposits and maintaining a certain amount of liquid resources, as prescribed by the Registrar of Co-operative Societies, had come to be known as urban co-operative banks, irrespective of the size of their share capital (Reserve Bank of India, 1999:2).

The Reserve Bank of India surveyed and studied all aspects of urban co-operative banks during the year 1957 to 1958. The report, published in 1961, made valuable suggestions on how to develop urban banks along sound principles. The report stated that “the general picture of urban co-operative banking is one of a fairly widespread, financially sound, expanding and useful framework of banking institution which have their own place of importance in banking which form a large part of the country” (Kulkarni, 2000:50).

In 1968, the Reserve Bank of India appointed the working group on industrial financing through co-operative banks. This working group assigned new roles to these

banks by urging them to provide financial assistance to small-scale industries (Kulkarni, 2000:50).

In the year 1971 for the first time the Reserve Bank of India conducted a seminar at the Banker Training College, Poona, with Chief Executive Officers of urban co-operative banks. The seminar made useful contributions to the development of urban co-operative banks (Kulkarni, 2000:50-51).

Between the period 1966 and 1993, the resources mobilised by way of deposits by the urban co-operative banks registered a phenomenal growth. From a meagre *Rs.153* crores (ten million Rupees) as at the end of June 1967, they rose to *Rs.13531* crores by the end of March 1993. The credit base surged from *Rs.167* crores to *Rs.10132* crores during this period (Reserve Bank of India, 1999:5)

Madan (2007:297) argues that in rural areas, as far as agriculture and related activities were concerned, the supply of credit, particularly institutional credit, was inadequate. Unorganised money market agencies, such as moneylenders, were often providing credit and exploiting high rates of interest. Their basic objective was to provide an alternative to village moneylenders, who had been the only source of credit (Faruquee, 1999:123).

Co-operative banks were formed in order to substitute such agencies, provide adequate short-and long-term institutional credit at reasonable rates of interest, and to bring about integration of the unorganised and organised segments of the Indian money market (Bhole & Mahakud, 2009:328).

When the national economic planning began in India, co-operative banks were made an integral part of the institutional framework of community development and extension services, which were assigned the important role of delivering the fruits of economic planning at grassroot levels (Bhole & Mahakud, 2009:329).

Bhole and Mahakud (2009:328) also state that co-operative banks are an important constituent in the Indian financial system, judging by the role assigned to them, the expectations they are supposed to fulfil, their number, and the number of offices they operate.

It is evident that co-operative banks play an important role in India because of the vast majority of individuals living in rural areas. India, as with South Africa, has a formal and informal sector with regard to the co-operative banking environment. The following section contains a discussion on the origin and importance of co-operative banks in South Africa.

2.4 THE ORIGIN OF CO-OPERATIVE BANKS IN SOUTH AFRICA

Some background on the South African economy will indicate that there are literally millions of South Africans depending on co-operative banks, whether informally or formally. The difference between informal and formal co-operatives will be explained in the next section. An overview of the informal as well as the formal development of co-operatives as well as the history of both the formal and informal development of co-operatives will be provided in separate sections.

There are approximately 16.71 million South Africans living in rural areas, who represent about 38% of the population. Despite these numbers, formal financial institutions do not provide financial services within these areas. The potential income generated from services does not warrant the cost of providing services due to the limited need of banking services and the remoteness of most of the rural villages (Nigrini, 2001:2).

Nigrini (2001:2) further explains that the characteristics of the rural areas (poor infrastructure, low population density, high levels of illiteracy, and limited business activities), further restrain formal financial institutions from addressing the financial needs of the rural population. Rural villagers, on the other hand, face high transaction cost in travelling to the nearest bank and often do not adhere to the minimum requirements set by the banks for either opening a savings account or obtaining a loan. When commercial banks do provide financial services, it must be sustainable.

The services that individuals living in rural areas need or demand are as follows (Nigrini, 2001:2-3):

- The safekeeping of cash and saving opportunities. People living in rural areas have the ability to save. Often the importance of savings in rural areas has been

neglected since it was assumed that people living in areas cannot and will not save due to low levels of income and a high propensity to consume. In many instances, the demand for saving facilities is greater than that for credit.

- Short term credit. Credit is needed for unforeseen consumption expenses, for example, marriage, birth, and burials, and is often obtained from local moneylenders at high interest rates.
- Transmission services. Extended family networks found in the rural areas and extensive rural-to-rural and urban-to-rural migration leads to the demand for better electronic transmission services. Such services will allow transacting between urban and rural areas as well as within and between rural areas. Electronic transmission facilities are especially important since many pensioners, as sole income earners, live in rural areas.

Coetzee and Cross (2003:2) argue that given the financial needs of rural villagers and the problems of adverse selection and moral hazard associated in providing these services, the importance of decentralised financial services, *inter alia* financial services that are organised by the local community, becomes evident. These self-help groups emphasise intermediation at the local level, *inter alia* to mobilise local financial, human, and social resources and provide services such as saving and credit facilities. The solidarity and trust that exist among members of the community as well as local knowledge, management and pressure, decrease adverse selection and moral hazard problems often associated with local financial intermediaries.

In light of this discussion, it becomes evident that commercial banks do not meet the needs of all South Africans, especially those individuals living in rural areas. Therefore, these individuals are heavily dependent on either credit co-operatives (informal) or co-operative banks (formal).

Taking into consideration the need for co-operatives as well as co-operative banks in South Africa, a discussion on the history and characteristics of these institutions in South Africa is important.

In South Africa, there are formal, semi-formal, and informal developments of co-operatives. The informal development is where individuals are part of a *stokvel*, the

semi-formal development where individuals are part of a credit union, and the formal development of co-operatives have their origin in the development of co-operative banks. The following section will provide a discussion on the informal development of co-operatives followed by a discussion on the formal development of co-operatives in South Africa.

2.4.1 Informal development of co-operatives

Du Toit (195:426) defines a Stokvel as:

a type of Credit Union in which a group of people enter into an agreement to contribute a fixed amount of money to a common pool weekly, monthly or yearly. This money or a portion of it then may be drawn by members either in rotation or in a time need.

Calvin and Coetzee (2010:1) state that stokvels originated in South Africa in the early 19th century as a spin-off of 'stock fairs' whereby English settlers had rotating cattle auctions in the Eastern Cape. These fairs were a lively place for interaction, socialising and gambling among black farmers and labourers. These gatherings later spilled over into meetings of a similar nature in the black communities as a whole, and were no longer associated with stock fairs. By the late 1920s stokvels were functioning in South African societies in the Western and Eastern Cape, the Witwatersrand, Natal, and the Orange Free State (Verhoef, 2001:265)

Many years later, it evolved into the concept of burial societies – which are, according to the South African Tax Institute Practitioners (2010:559), co-operatives that provide funeral benefits, including funeral insurance and other services to their members and their dependants - when mine migrant workers started experiencing increased mortality rates (Calvin & Coetzee, 2010:1).

Porteous and Hazelhurst (2004:194) state that party stokvels also came into existence, which were arranged street or jazz parties, often with live entertainment. An entrance fee would be charged, and food and drink would be on sale. Members then shared in the profits. However, the authorities regarded these party stokvels as shebeens, illicit bars where alcoholic beverages are sold without a licence, resulting in arrests based

on illegal selling of liquor. This led to the formation of the National Stokvels Association of South Africa (NASASA) in 1988 (Calvin & Coetzee, 2010:1).

The National Stokvel Association of South Africa or NASASA, a non-profit organisation, was established as a lobby and umbrella group to represent the interests of stokvels. It provides education and public awareness programmes to low-income communities, encouraging them to save with the self-managed Stokvels. It also develops management-training materials for the members of stokvels (ECI-Africa, 2003:5).

Lemire *et al.* (2001:104) state that in 1990 only 5% of formal credit and higher purchase advances were provided to the black population, whereas their income accounted for 36% of total income while they made up 70% of the total population of South Africa. In 1996, approximately 3.6 million South Africans participated in stokvels. This increased and in 1998, approximately 5.2 million South Africans belonged to burial societies. Membership of stokvels was approximately 5.9 million individuals, 31% out of a total of 18,9 million black South Africans. In 2002, it was estimated that stokvels in South Africa had a turnover of R30 million a month (Mesthrie, 2002:413).

In 2004, the estimation was that approximately 6 million South Africans save into burial societies. Burial societies are similar in structure to stokvels. Although this can be seen as a form of insurance rather than saving, and because they are dedicated to providing funding for funerals, they cannot underpin other forms of financial services, such as the extension of credit. It was also estimated that R5 billion flows through stokvels each year (World Bank, 2006:205).

On 1 December 2006, the South African Reserve Bank introduced legislation pertaining specifically to stokvels. This amendment to the Banks Act (Act 94 of 1990) defined what constituted a stokvel (Calvin & Coetzee, 2010:1).

According to the Government Gazette (2006:1) a common bond exists between members of a specific group that may be described by the term or concept known as a 'stokvel' which:

- i. is a formal or informal rotating credit scheme with entertainment, social and economic functions
- ii. fundamentally consists of members who have pledged mutual support to each other towards the attainment of specific objectives
- iii. establishes a continuous pool of capital by raising funds by means of the subscription of members
- iv. grants credit to and on behalf of members
- v. provides for members to share in profits and to nominate management
- vi. relies on self-imposed regulation to protect the interest of its members.

An amendment was made to the Banks Act (Act 94 of 1990) to cater for Stokvels whereby they are seen as falling outside the definition of a commercial bank. This meant that stokvels were viewed as legal, self-governing entities, operating outside the regulations governing banks. This allowed them to take deposits from their members only, but they were not allowed to hold in excess of R9.99 million at any one time. Any Stokvel exceeding this amount would be required to register as a mutual bank and would then legally fall under the Mutual Banks Amendment Act, 1994 (Act 25 of 1994). Stokvels also had to affiliate themselves with NASASA (Calvin & Coetzee, 2010:1).

According to the Umsobomvu Youth Fund (2003:6), the difference between a stokvel and a co-operative bank is that co-operative banks are legalised entities and enjoy legal protection and support from the government.

Bahre (2007:9) states that the informal nature of Stokvels made it difficult to determine the history of the number of participants in stokvels in South Africa. However, more research carried out in 1991 indicated that 1 344 000 people participate in stokvels in the metropolitan area alone. This was just about a quarter of the South Africa urban population, and the estimated annual turnover of their Stokvel was estimated at just over R1 billion.

These findings indicate that a very large number of the South African population are active participants in stokvels. Stokvels are therefore, an integral part of the South African economy.

The subsequent section will discuss the development of semi-formal institutions. The section will include the history of credit unions also known as savings and credit co-operative and village banks.

2.4.2 Semi-formal development of co-operatives

With regard to the semi-formal development of co-operatives in South Africa, a discussion on credit unions/savings and credit co-operatives, as well as village banks is necessary to understand the different forms of development of co-operatives in South Africa.

A savings and credit co-operative and a village bank are in essence similar entities, both having their roots in the co-operative development although their origin in South Africa is different.

2.4.2.1 The development of Savings and Credit co-operative

SACCO is the acronym for a Savings and Credit Co-operative. As mentioned in Section 2.2.3, there is no difference between a credit union and a SACCO. However, it is important to understand that a SACCO is not a stokvel, nor is it a bank.

The United Nations Centre for Human Settlements (2001:76) states that the South African Credit and Co-operative League (SACCOL), was formed in 1993 – SACCOL's main objective is to assist with the development of the Savings and Credit Co-operative or SACCO movement at the employee and community level. SACCOL represents SACCOs and credit unions throughout South Africa (International Co-operative Alliance, 2001:76).

Satgar (2003:8) supported by the Savings and Credit Co-operative League of South Africa (2011), states that SACCOL has its origin in the Cape Credit Union League (CCUL) which was formed in 1981. At this time various Catholic Church parishes decided to form credit unions and the CCUL was formed to help them coordinate their activities and standardise their operations. However, the credit unions were formed as

social organisations and did not operate their co-operatives as businesses. This proved to be problematic because these credit unions' interest on savings were very low, and because they provided loans at a very low interest rate members were not interested in saving with the SACCO, they were only interested in obtaining loans from the SACCO. Without savings and shares, the SACCOs were unable to grow. However, because members were enjoying the benefit of loans at such a low interest rate, they did not want to change the way they operated. Without growth, it was inevitable that these SACCOs would stagnate.

A second problem that existed was the fact that people were scared to take up leadership positions, as there existed a state of emergency in the country during this period. This resulted in the ministers of the parishes taking a leadership position in the SACCO. If the minister transferred to another parish, the existence of the SACCO would depend whether the incoming minister had knowledge about a SACCO and whether he/she was interested in continuing its activities (Savings and Credit Co-operative League of South Africa, 2011)

In 1987, the CCUL extended its activities outside the Western Cape region and formed the South African Credit Union League. (Satgar, 2003:8). Because of much discussion within the movement, these credit unions decided to change their entire orientation toward a business orientation. The viable co-operatives argued that making a surplus and thereby developing strong SACCOs, was in the members' best interests over the long term, rather than the short-term gain of loans at a very low interest rate. Thus, in 1993 the Savings and Credit Co-operative League of South Africa (SACCOL) was established.

In 2002, 21 SACCOs were registered with SACCOL with a combined membership of over 6 000, and members' savings of just over R10 million (Human Science Research Council, 2002:101).

Savings and credit co-operatives are the more formal and registered co-operative version of stokvels but with a far more modest membership base of 8 884 in SACCOL (the SACCO League), as at October 2003, and an asset base of R21.7 million. The single largest of the 32 SACCOs in 2003 was at Alrode Ltd, a metal-sector company in Alberton organised by the National Union of Metal Workers of South Africa or NUMSA, with 800 members and an asset base of R5,2 million. In

2006 there were 40 SACCOs serving roughly 13 000 members. (South African Foundation, 2003:14).

In 2010, there was notable growth of SACCOs in the KwaZulu Natal province. This province, at the end of March 2010, had a membership base of 4 483 members spread between 17 SACCOs (Savings and Credit Co-operative League of South Africa, 2012).

The total assets for the movement for 2010 were R130 098 152 with outstanding loans of R89 925 457, savings of R117 088 670 and a total membership of 26 164 (Savings and Credit Co-operative League of South Africa, 2012).

The Savings and Credit Co-operative League of South Africa (2012), states that the African Confederation of Savings and Credit Co-operatives or ACCOSCA was formed in the 1968 because of the need to promote co-operative movements in Africa. Nairobi, Kenya, is the base for the secretariat. All SACCOs are members of ACCOSCA. ACCOSCA has the potential to strengthen organisation systems and capacity within SACCOs in the continent, which will lead to sustainable and well-run credit and saving unions; a situation that has previously been wanting. In May of 1996, South Africa became the 28th African nation to become a member of ACCOSCA (Satgar, 2003:7).

According to Aredo (1993:38), the origin of the African Confederation of Savings and Credit Co-operatives or ACCOSCA stems from the need to promote co-operative movements in Africa since 1960, and it was later registered in 1968 in Kenya (ACCOSCA, 2011).

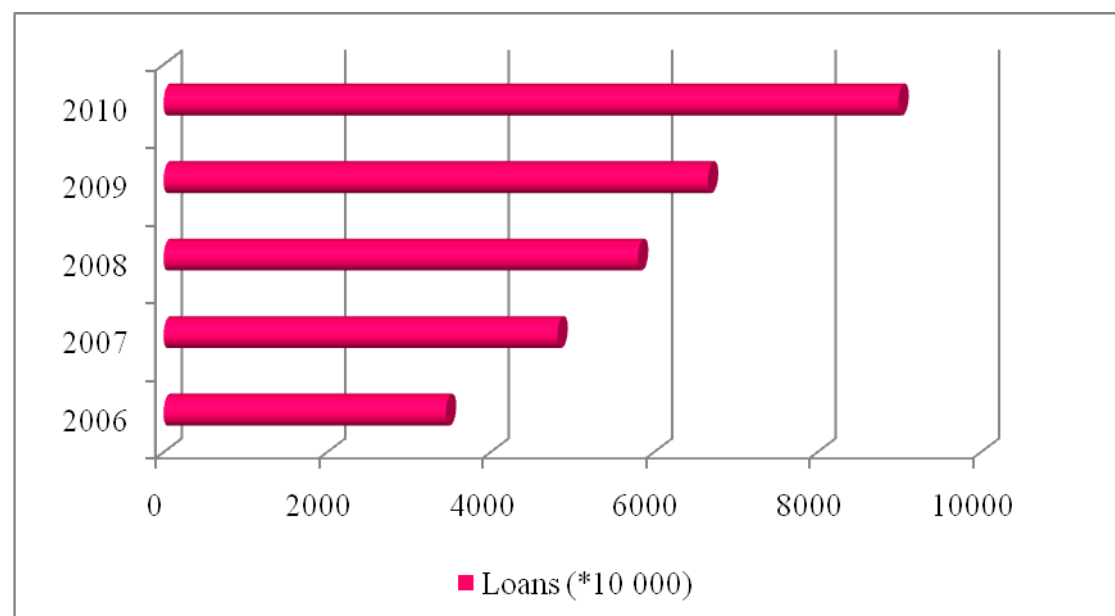
ACCOSCA enjoys a goodwill gesture from its members and other stakeholders that are keen on making Africa a better place to live. Currently, ACCOSCA has developed programs aimed at improving social-economic needs of Africa through saving and credit unions partnering with various government bodies, development agencies and research institution so as to contribute towards mitigating challenges facing Africa in the twenty-first century, which aimed at effectively supporting members, working on bringing services to the people not generally served by the formal sector (ACCOSCA, 2011).

The mission of ACCOSCA is to promote and empower SACCOs in Africa through financial, social, and technical assistance to improve the livelihood of members in accordance with co-operative principles (ACCOSCA, 2011).

Member countries of ACCOSCA include:

- South Africa (South African Credit and Co-operative League)
- Seychelles (Seychelles Credit Union)
- Uganda (Uganda Co-operative Savings and Credit Co-operative Ltd.)
- Cameroon (Cameroon Co-operative Credit Union league)

Figure 2.1: The number of paying members of SACCOs (South African Credit and Co-operative League, 2012)



2.4.2.2 The development of village banks

According to Holt (1991:vii), village banks are community-managed credit and savings associations. The purpose of the establishment of village banks was addressing the financial needs within rural areas in a sustainable way. These institutions utilise the communities' resources by creating community-based

intermediaries that may act as an effective link between the rural communities and the formal financial sector (Leslie and Frankel, 2002:372).

According to the Human Science Research Council (2002:101), the first village bank in South Africa was established in the North-West Province in 1994. Two more village banks were formed by 1996, after which growth in numbers were dormant in 1999 and 2000, when two institutions FinaSol, a non-profit organisation, and Financial Services Association (FSA) started a concentrated effort to increase the number of village banks. The South African Sugar Association, as an alternative agency for its Financial Aid Fund, established FinaSol. FinaSol was to develop a franchise methodology to support the establishment and replication of the village bank model.

In 1996 Motswedi Village Bank in the North-West Province was established, and accumulated deposits in excess of R200 000 from 200 members within a year of its inception. In 2003, this bank had mobilised more than R1 million in savings. The Motswedi Village Bank's members cover all the economic sectors in the area, including farming (Coetzee & Cross, 2003:14).

Coetzee and Cross (2003:14) also state that after the initial success of the first few Village banks, the organisation that started them, the Financial Services Association (FSA), increased its focus, and with funds obtained from the National Department of Welfare, facilitated the creation of many more village banks. In addition, FinaSol also focussed their attention on the facilitation of the creation of more village banks. In the period from 1997 to 2001, nearly 56 additional village banks were registered with the Registrar of Co-operatives.

The subsequent section will discuss the formal development of co-operative banks, focussing on mutual building societies, which played a major role in South Africa's economy in the 1900s.

2.4.3 Formal development of co-operatives in South Africa

The formal development of co-operatives in South Africa originated from building societies, therefore, an explanation of the term 'building society' is important before there can be an explanation of the origin of these building societies.

The strict definition of a building society is a co-operative organisation that accepts deposits from savers which then utilises them to make loans, secured by mortgages, to house buyers (Building Societies Association, n.d.1).

According to Wilson (2012:51), the function of building societies is to mobilise small savings for granting mortgage loans against the security of urban residential property.

Brummer (1993:2) states that during the early years of South Africa, various mutual building societies were formed by interest groups, and terminated once all members had been allocated a loan. The first such organisation was established in 1855 in Port Elizabeth, the movement spread with the urbanisation following the discovery of diamonds and gold. This led to the origination of the second village bank in Durban in 1856.

In 1877, the first Grahamstown building society, operating as a mutual society was formed, and operated as a terminating society until 1926, when it converted to a permanent building Society. The first permanent building society in South Africa was the Cape of Good Hope Land Building and Investment Society, founded in Cape Town in July 1877 (Brummer, 1993:2).

In February 1882, the Natal Building Society, which was permanent, was founded after it evolved out of the many terminating building societies in Natal (now KwaZulu-Natal). A firm of accountants managed it, which also did transportation and estate agency work under the direction of a Committee of Trustees (Brummer, 1993:2).

On 16 November 1883, South Africa's third permanent building society, the Kimberley Permanent Mutual Building and Investment Society was formed. They charged 15% interest on loans, which was a fair average of what the two other terminating societies received in their bidding. This interest rate of 15% gives a good indication of what the market rate was a century ago (Brummer, 1993:2).

The first permanent society, which attracted additional funds from members of the general public who did not wish to buy their own homes, the Perseverance Building Society, was formed in 1885 (Boleat, 1985:71).

The Johannesburg Building Society was founded in 1888 and the Johannesburg No. 1 Terminating Building Society, the first of four such societies, which amalgamated to form the United Building Society of Johannesburg (later the United Building Society), began operations in 1889. The amalgamation took place on 14 April 1893. The United Building Society became a financial institution of significant size and was the largest building society in South Africa for decades. It accumulated a strong capital base over the years and in the early 1990s was used as the merger vehicle to create South Africa's largest banking group at that time, Amalgamated Banks of South Africa Limited or ABSA (BIS, 2005:78).

In 1934 the Building Societies Act was promulgated which forced a unified system of operation and paying of dividends, as well as making it easier for building societies to operate outside their sphere of establishment. In November 1938, the Association of Building Societies of South Africa was formed (Brummer, 1993:2).

Until the outbreak of the Second World War, there were 45 permanent building societies registered. These numbers then declined over the next decades to 32 (1950), 29 (1960), 15 (1970) and 11 (1984) (Brummer, 1993:2).

At the end of 1981, building societies were the third largest group of financial institutions in South Africa after commercial banks and long term insurers, respectively. On 30 June 1981, the total investment of building societies in their development companies amounted to R58 million (Boleat, 1985:71-72).

Legislation pertaining to building societies was frequently changed and augmented over the years. However, certain restrictions and privileges afforded to building societies remained. For instance, special tax treatments meant that building societies could offer mortgage loans below market rates, which placed commercial banks at a disadvantage (BIS, 2005:78). As part of a comprehensive enquiry into the Monetary Policy in South Africa during 1982 and 1985, it was recommended that the playing field between commercial banks and building societies be levelled (BIS, 2005:78).

The restrictions placed on the way in which building societies could capitalise themselves were especially crucial. These restrictions meant that these societies could only exist as mutual institutions. Although changes to legislation caused these restrictions to be removed, and most of the larger building societies opted for a listing

on the Johannesburg Stock Exchange or the JSE – a process that meant that they would lose their mutual society status. The listing process started in 1986 and the United Building Society became the first publicly listed building society. Members' accounts were converted into ordinary shares (BIS, 2005:78).

With the disbandment of the cartel agreement between South African banks, new competitive forces significantly changed the nature of the banking and building society industries. With the introduction of competition, the differentiation between banks and building societies were essentially based on price, the product, and customer orientation. This resulted in intense rivalry between financial institutions (Brummer, 1993:2).

Different sets of legislation regulated banks and building societies, which further exasperated the competitive stance of these institutions. The Bank's Act regulated banks, which meant that capital requirements were determined on assets (4% of assets), there were no restriction in obtaining call funds applied, there were no restrictions on mortgage loans, and access to foreign funds by banks gave banks a funding flexibility advantage over building societies (Brummer, 1993:2).

The building societies were regulated by the Building Societies Act, which meant that capital requirements were based on liabilities (4% of liabilities), and only 10% of funds could be obtained in the call market. A strict loan to value criteria applied, a restricted product range was legislatively determined, and no access to foreign funds resulted in a significant funding disadvantage relative to banks (Brummer, 1993:2).

According to Brummer (1993:2), some key changes took place in the financial services market during the 1980s. These had a major impact on the products and finance available for housing. These changes include:

- Conversion of mutual building societies to equity based companies
- Levelling of playing field occurred in respect of:
 - Product range
 - Funding restrictions

- Legislative restrictions
- Legislative changes to allow mutual societies to list on stock exchange
- Banks entered the home loan market
- Building societies began issuing cheque accounts
- Restrictions on call deposits lifted from 10%
- Capital intensity increased due to changes in the technological nature of the banking sector
- The role of technology increased in importance
- The shortage of skills became a growth inhibitor
- Product innovation increased dramatically
- Intense competition was the order of the day
- All major mutuals were listed or acquired
- Insurers retained a competitive advantage in acquiring funds
- Group formation resulted in a greater concentration in the industry.

In 1986, the United Building Society became an equity-based company listed on the JSE. The Natal Building Society in early 1987, the Allied Building Society in June 1987, and Saambou followed it by the end of 1987. The Trust Building Society was absorbed into Trust Bank in December 1991 and the Standard Building Society into Standard Bank at the same time (Brummer, 1993:2).

As the boundaries between building societies and banks started to fade, and more of the Building Societies converted into banks or merged with existing banks, mortgage financing became an important component of banks' balance sheets. By the mid 1990s, there were no building societies in existence although 11 had been in operation in 1984. This resulted in the disappearance of building societies in the South African financial market (BIS, 2005:78).

2.4.4 Transition to co-operative banks

When a co-operative's deposit reaches an amount of R1 million or more, it is required under law, to be registered as a co-operative bank under the Co-operative Banks Act (40 of 2007). When a co-operative applies for registration, there are certain documents that need to be presented to the supervisor in order to qualify for registration; some of these documents include (Government Gazette, 2008:14):

- Two certified copies of the constitution of the proposed co-operative bank
- A certified copy of the registration certificate as a co-operative under the Co-operatives Act of the proposed co-operative bank
- A savings policy
- A business plan
- If applicable, a lending policy.

The abovementioned documentation is just some of the required documentation when applying to register a co-operative bank. However, when applying for registration, it is not sufficient merely to provide the necessary documentation, there are other factors that also have to be considered. Upon review of the proposed co-operative bank's registration, the supervisor needs to be satisfied that the co-operative bank in question will in fact only conduct the business of a co-operative bank. The supervisor also needs assurance that the proposed co-operative bank will be able to function efficiently with the assistance of sufficient human, financial, and operational capacity (Government Gazette, 2008:16).

It is also important to be aware of the different individuals involved in the co-operative banking legislation. All co-operative banks have to abide by the legislation the supervisor or the Minister of Finance prescribes. The South African Reserve Bank, with the approval of the Minister of Finance, is responsible for appointing a suitable employee in the position as supervisor. The supervisor will have the authority to perform all the necessary functions that are required of him/her which relate to all primary co-operative banks that hold deposits in excess of R20 million, all secondary

co-operative banks, as well as all tertiary co-operative banks (Government Gazette, 2008:38).

The subsequent section will provide a discussion on the functioning of co-operative banks. It is important to understand the principles these banks are based on, as well as the different services provided by them. These services are what separate co-operative banks from commercial banks and what makes co-operative banks so important to millions of individuals around the world unable to obtain similar services from other financial institutions.

2.5 THE STRUCTURE OF THE CO-OPERATIVE BANKING SYSTEM

Tulsian and Tulsian (2005:73-74) supported by Bhole and Mahakud (2009:329) and the European Association of Co-operative Banks (2012:2-4), state that even if co-operative banks' organisational rules vary according to their respective national legislations co-operative banks share common features. These are:

- Voluntary association – a co-operative bank is a voluntary association in the sense that people voluntarily come together to promote their interest without any coercion or undue influence. Any person having a common interest, and who is invited, can become a member. A member can leave the society as and when he/she decides after giving proper notice.
- Principle of self-help through mutual help – all people can and should strive to control their own destiny. The belief is that full individual development can take place only in association with others. Individuals also develop through co-operative action by the skills they learn in facilitating the growth of their co-operative bank. Co-operative banks are institutions that foster the continuing education and development of all those involved with them.
- Membership – members of co-operative banks are not simply shareholders. Membership aims at establishing a long-term relationship with the co-operative bank and generates rights, particularly voting rights. In co-operative banks, ownership rights (for example, the right to vote and to speak in the General Assembly and the election of directors) emanate only from the acquisition of

membership. It means that the rights are vested in the membership of the individual, not in the share. Irrespective of the number of shares held by a member, the member has only one vote.

Furthermore, the members of co-operative banks do not only formulate different objectives, but also have a strong involvement in their co-operative bank. Indeed, members are generally more involved in the activities of their co-operative bank and therefore, they are likely to have a higher degree of understanding of the co-operative bank's business than would be the case for a shareholder of a public limited company. Decisions of membership rest upon a well-informed basis and represent a commitment in the longer term. Members of co-operative banks generally look at the co-operative banks' activities and exert influence from a double perspective as users and investors.

- Members are users of the services of their co-operative banks. As users, it is in their best interest that their banks provide services of high quality, which meet their needs. Therefore, co-operative banks have a customer led policy and give their members a say on their business policy. Accordingly, co-operative banks are customer driven banks. As a result, the interests of the using members converge to a large degree with the business policy of co-operative banks. On the other hand, they generally invest a limited amount of capital in their co-operative bank. The members, as investors, do not expect high profits, but they want the co-operative bank to conduct its business in a sound, efficient and profitable manner.
- Democratic management – co-operative banks operate under democratic self-management based on the principle of one-person, one-vote. In a co-operative bank, members are both owners and customers. Therefore, in the context of their corporate governance principles, they elect the non-executive managers of the co-operative bank serving on the boards of elected members and/or supervisory boards who nominate general managers. Members express their voice in the framework of annual general assemblies, mainly devoted to elect representatives, to assess the performance of the bank, and to propose guidelines for the banks' development. Regional or national elected members of co-operative banks are generally local members. A national mandate is subordinate to a regional or a

local mandate. It is imperative that local agencies understand and represent their members.

- Perpetual existence – a co-operative bank has perpetual life. Members' death, insolvency, and lunacy do not affect the existence of a co-operative bank. Since law creates it, only law can dissolve it.
- Service motive – the formation of co-operative banks is not to maximise profit like other forms of business organisations. The main purpose of a co-operative bank is to provide service to its members.

Co-operative banks perform all the main banking functions of deposit mobilisation, supply of credit and provision of remittance facilities. However, the range of services offered is narrower and the degree of product differentiation in each main type of service is much less in co-operative banks, compared to commercial banks. In other words, co-operative banks are characterised by functionalism specialisation.

- Distribution of surplus – co-operative banks may pay a dividend to their members, depending on the performance on the entity. But, the distribution as dividend is constrained by the fact that at least a certain part of the profits is used to set up reserves to ensure the operations and the financial situation of the co-operative bank in order to pursue their objective targets.
- Capital – the capital is procured from its members in the form of share capital or membership fees.
- Financial intermediaries – co-operative banks are only financial intermediaries partially. The sources of their funds are (a) central and state governments, (b) ownership funds, and (c) deposits or debenture issues. It is important to note that intra-sectoral flows of funds are much greater in co-operative banks than in commercial banks. Inter-bank deposits, borrowings, and credit form a significant part of the assets and liabilities of co-operative banks. This means that intra-sectorial competition is absent and intra-sectorial integration is high for co-operative banks.

To summarise, co-operative banks have certain characteristics or features in common, irrespective of where they are situated. Some of the features include, for example, that each member has equal voting rights, that co-operative banks are service driven and not profit driven, that co-operative banks work on the principle of self-help, and that a co-operative bank is a voluntary organisation, meaning all invited individuals do not need to become members. These are just a few of the many features co-operative banks have in common.

The importance of the previously discussed characteristics is the fact that they distinguish between co-operative banks and commercial banks. Co-operative banks provide services not rendered by commercial banks and therefore, co-operative banks play a very important and integral role of the global economy today.

The following section will place emphasis on the co-operative bank models. According to the Canadian Department of Finance (2008), there are a large number of co-operative banks operating around the world, each with their own characteristics. However, all of these banks are variations or adaptations of mainly four co-operative bank models.

2.6 CO-OPERATIVE BANKING MODELS

Co-operative banks are based on co-operative bank models, some of which will be discussed below. The important factor of co-operative bank models is that they highlight the differences between co-operative banks or, in other words, the difference in the way co-operative banks function. Co-operative banks may have their own laws or regulation but all co-operative banks are based on certain co-operative bank models.

A particular feature of European co-operative banking is that there is no single universal model that, in all its detail, is common to every co-operative bank. This means that there is no completely homogeneous set of co-operative banks across Europe. There is a rich diversity in precise business models, structure and governance. Within the diversity there are, nevertheless, major common features to the co-operative banking model.

According to Fonteyne (2007:16) supported by the Modina and Formisano (2011:4), there are four models:

- Groups that have centralised/concentrated systems at national level
- Groups that have centralised/concentrated systems at regional level
- Groups that are legally integrated, but have decentralised systems
- Decentralised systems with voluntary integration.

2.6.1 National Centralised Systems

The National Centralised System is the system Rabobank is based on and consists of a large central entity (also explained in Section 2.6.2), which functions as the system's national trade association and financial services provider, with affiliated local banks. Association functions and corporate decision-making take place at the head office. Dutch banking law requires that any new co-operative bank should be affiliated with RaboBank and be subject to its oversight, and in turn the new co-operative bank will only be required to have very little initial capital amounts (seed capital), in addition to enjoying the services and the protection of the central office. The local bank however, is legally independent and enjoys a certain degree of operating autonomy, although with strict limits with regard to the granting of substantial loans, and restrictions on their financial administration (Delfiner *et al.*, 2006:16).

Delfiner *et al.* (2006:16) continues by stating that the administration of the local bank is monitored and subjected to corrective actions based on the recommendations of the central office; if however, the suggestions are not accepted, then restrictions are placed on the guarantee system and punitive refinancing rates are applied. In practice, the central office's recommendations are equivalent to their instructions. Furthermore, local banks are firmly established in their localities while regional associations have been formed to satisfy the technocratic element at the same time as the internal democracy concept strongly affects overall lending policy, strategic planning, and current system practices. Other similar systems in Europe are the rural credit banks in Portugal and the Finnish co-operative banks.

2.6.2 Regional centralised systems

The Spanish Credit co-operatives form a co-operative banking system, which is created as a model of a federated bank similar to other European systems like France, Holland, Finland and Germany, countries where the co-operative system has been developed (Melián-Navarro, 2009:138).

In France, the *Crédit Agricole* and the *Crédit Mutuel* are two highly concentrated systems that benefit from the application of capital adequacy ratios on a regional basis. These systems embarked on a process of regional integration in 1990, to be able to adopt the consolidation mechanism and the corresponding system for control and guarantees (Delfiner *et al.*, 2006:16-17)

2.6.3 Decentralised systems with integration under a legal mandate

In some countries with decentralised co-operative financial systems where local banks enjoy legal and operating autonomy, the legal requirement is to associate with a second-tier organisation. Although such structures do not allow banks to benefit from capital adequacy ratios on a consolidated basis, and do not provide a real crossed guarantee system for their loans, vertical and horizontal collaboration have generated networks integrated to varying degrees in terms of their association and operations. The clearest example in which integration is manifested in an operational context is that of Germany, where the law demands that each co-operative should belong to a regional federation, which complies with the role of statutory auditor in relation to its affiliate (Delfiner *et al.*, 2006:17)

2.6.4 Decentralised systems with voluntary integration

Delfiner *et al.* (2006:17) state that in the case of these systems, exemplified by Spain's rural banks and Italy's credit co-operatives, local banks enjoy greater autonomy by law, and their links to federations and other organisations providing auxiliary services, is purely voluntary. Nevertheless, these organisations tend to unite, mainly by the internal audit function provided by the federations, together with the deposit guarantee system, mandatory in accordance with European authority directives. In the specific instance of Spain's rural banks, many years of integration led to the creation of the *Caja Rural Group*, which is generally representative of an

integrated financial system rather than a group in the strictest sense. The solution adopted consisted in the progressive transfer of functions from local, district, and provincial banks, to central organisations, a process facilitated by the rationalisation of IT-services and by the operations of the central credit institution. The recent adoption of an audit system at national level has strengthened the cohesion of the group. The only example of a pure decentralised system with voluntary integration is that of the Italian Co-operative Credit Banks (CCB).

The BCC network is an organisation with a regional and national federative structure and a central banking group that provides support to local banks. There are no rules or laws obliging the BCCs to affiliate with second or third tier institutions to ensure their business autonomy (Delfiner *et al.*, 2006:17).

In light of the above discussion, the various models indicate the differences between different co-operative banks. Whilst there are differences in detail between different co-operative bank models, their common features are more significant than their differences.

Up to this point there has been a discussion on the definition of all relevant terms, the differences between commercial banks and co-operative banks, the early periods of co-operative banks, as well as the origin of co-operative banks in specific countries, for example the United States, India, the Netherlands and South Africa. There has also been a discussion on the structure of co-operative banks as well as different co-operative bank models around the world. These discussions indicate the importance of co-operative banks, especially when considering the differences between commercial and co-operative banks and the services they provide

The subsequent section will provide a discussion on the different types of co-operative banks found in different countries. The countries in question are the United States, India, the Netherlands and South Africa. From the following discussion, it will again become evident that co-operative banks around the world are not exactly the same, although they share common features.

2.7 THE CO-OPERATIVE BANKING SECTOR

This section will provide a discussion on the functioning of the co-operative banking sector in the respective countries. The first country under discussion is Europe, specifically Germany. The second country is Canada, which as mentioned, has some similar features in their co-operative banks as in the European co-operative banks, and the third country is the United States, which as also mentioned, has some similarities between their co-operative banks and those of Canada. The fourth country will be India and lastly a discussion on South African co-operative banks.

2.7.1 The co-operative banking sector in Europe

This section provides a discussion on the structure of the co-operative banking system in Germany. This country was specifically chosen because co-operative banks have their origin in Germany and co-operative banks form an important part of the German banking sector. The German co-operative system has been an example for the creation of co-operative banks in many countries including the largest co-operative bank to date - Rabobank (Economic Research Department, 2009:18).

Not only have co-operative banks originated in Germany but based on the total number of banks, Germany also has the largest banking sector in Europe. The European banking sector broadly consists of three pillars, which include savings banks, co-operative banks and commercial banks. For the purpose of this study, only the co-operative banking sector will be discussed (Economic Research Department, 2009:18).

An interesting feature of the co-operative banks in Germany is their embodiment of the goal of self-help by encouraging the economic success of their members. Initially, this meant only their members could be customers of the bank. Today however, non-members also have the opportunity to become customers of these banks (Francke & Ludson, 1984:59-60).

German co-operative banks operate as 'shareholder-owned' enterprises, and the deposits are technically shares (equity liabilities) rather than demand debt liabilities. These banks are called people's banks (volksbanken) or Raiffeisen banks after the

movement's founder, Friedrich Raiffeisen. Raiffeisen banks operate primarily as rural or agriculture-oriented banks (Kaufman, 1992:562).

According to the German Co-operative and Raiffeisen Confederation (nd:5) the local people's banks and Raiffeisen banks form the basis of the co-operative financial network (Finanzverbund). Two central banks, the Deutsche Zentral-Genossenschaftsbank (DZ Bank) and the Westdeutsche Genossenschafts-Zentralbank (WGZ Bank), support them, as well as different enterprises of the co-operative financial network as well as by regional federations.

As stated, co-operative banks form the third pillar of the German banking sector and an important characteristic of these co-operative banks is their decentralised nature. The local Volksbanken and Raiffeisenbanken are independent institutions that buy services, when needed, from one of the two central banks (Economic Research Department, 2009:18).

The German co-operative system has a two-tier structure, which consists of the local co-operative banks and the two central banks. DZ Bank and WGZ Bank act as central banks for the local co-operative banks; they operate as commercial banks for the corporate clients, and support the local banks with advice and financial services when needed. They however, do not supervise the local banks and the strategic course taken by the local banks is also not determined or initiated by these two central banks. The local co-operative banks are completely independent (Economic Research Department, 2009:18).

The organisational structure of the co-operative banking system is complex, with a system of central banks under the overall leadership of an organisation called Deutsche Genossenschaftsbank (DG Bank). DG Bank is a public corporation, but operates as a fully-fledged universal bank, providing wholesale services to other co-operative and central co-operative banks, as well as operating as universal bank in its own right (Kaufman, 1992:563).

The Central co-operative banks provide services to local and regional co-operative banks loosely arranged around the nature of the co-operative organisations. In particular, there is a central co-operative bank for agriculture, industrial consumers and credit co-operative banks (Kaufman, 1992:532).

The local and central banks are partners within the FinanzVerbund, which is the collective name for all the co-operative financial institutions. The partnership between these various co-operative institutions enables the local co-operative banks to operate as all-finance institutions (Economic Research Department, 2009:19).

All German co-operative institutions are members of the Bundesverband der Deutschen Volksbanken und Raiffeisenbanken (BVR). This institution represents and defends the interest of the co-operative institutions nationally as well as internationally. It also controls the guarantee fund because there is no cross-guarantee system, and co-ordinates the strategies implemented by the FinanzVerbund. The co-operative banks are the main customers of the central banks as well as their main stakeholders (Economic Research Department, 2009:19).

The following section provides a discussion on the functioning of the Canadian co-operative banking sector. As mentioned in Section 2.6.1, a ‘central’ entity forms part of the National Centralised Systems, and the following section will provide a more in depth description of what the term ‘central’ entails.

2.7.2 The co-operative banking sector in Canada

Credit unions or Caisses Populaires provide financial services in Canada, which are the francophone equivalent of a credit union. Credit unions across Canada operate within two systems; the first system is the le Mouvement des caisses Desjardins or the Desjardins group, primarily in Quebec. The second system is the affiliation of credit unions with the Credit Union Central of Canada (CUCC) (Quarter *et al.*, 2009:60).

Canadian credit unions are currently organised by a three-tier structure of local, provincial, and national organisation. All local credit unions operate autonomously but are affiliated to a provincial ‘central’, which provides corporate services and support. Centrals have been established by local credit unions as second-tier organisations of the credit union movement to increase the stability of, and provide services to, local member credit unions. These centrals are in turn members of the CUCC, which functions as the system’s national trade association and financial services provider (Birchall, 2001:53).

Birchall (2001:53) states that the CUCC maintains system liquidity at a national level and has a broad mandate in the area of credit union development. It also fosters a close relationship with the Movement Desjardins. Membership in the CUCC is open to central and to other co-operative organisations that meet the pre-established criteria (CPSS, 2003:41).

The Office of the Superintendent of Financial Institutions (OSFI) regulates provincial centrals as well as the CUCC. Provincial regulators continue to regulate individual credit unions. (Birchall, 2001:53).

According to the Committee of payment and settlement systems or CPSS (2003:41), centrals are incorporated or registered under provincial legislation, typically a Credit Union Act, and are owned primarily by their member local credit unions. Each central is also an entity independent of other centrals, whether located in the same or another province, though it might have operational links with them.

The primary functions of centrals are (CPSS, 2003:41):

- To provide member local credit unions with services they could not otherwise provide for themselves
- To assist local credit unions in increasing the efficiency of their operations
- To enhance the effectiveness and usefulness of local credit unions to their own members.

These functions involve, among other things, the investment of surplus funds of local credit unions, and the lending of funds to those institutions when they cannot meet the local demand for loans, the administration of online computer systems, and the provision of clearing services (CPSS, 2003:41).

Local credit unions are permitted to invest and deposit their statutory liquidity reserves and other surplus funds with their central. To accommodate these funds, centrals offer a range of demand and fixed-term deposit accounts (CPSS, 2003:41).

Funds that are required by a central beyond those provided by its member local credit unions are obtained by borrowings either from commercial banks or from the national central (CPSS, 2003:41).

Two third-tier organisations exist to provide centrals and other co-operative organisations with coordinated financial and support services similar to those offered by centrals themselves to their member local credit unions. The most important service provided by each organisation, with respect to payments, is that they are members of the Credit Providers Association (CPA), thereby providing their members with access to the Canadian payment system (CPSS, 2003:41).

Centrals are subject to provincial legislation and federal legislation under the Canadian Associations Act. Regulation of Canadian credit unions has taken place since 1987 under the Office of the Superintendent of Financial Institutions (OSFI). The OSFI is a single regulatory authority for banks, insurance, trust and loan companies, and credit co-operatives such as credit unions (Birchall, 2001:53).

Credit unions play a substantial role in Canada's financial sector. They are subject to provincial regulations and oversight. Generally, credit union members exercise the control over local credit union policies and operations. The role of the government is to ensure that credit unions, as financial institutions, conform to sound financial practices. Most provinces require credit unions to have their financial statements prepared by external auditors. Provincial regulators also conduct annual on-site examinations of the credit unions in their respective jurisdictions (Hernandez-Cross, 2005:46).

The following section provides insight into the functioning of the co-operative banking system in the United States.

2.7.3 The co-operative banking sector in the United States

The credit union structure in the United States is a three-tiered system. Boards of directors govern all three tiers of the United States Credit Union System. The levels of the system are as follows (SunCorp, 2006:1):

- The United States Central Credit Union

- Corporate credit unions
- Natural-person credit unions.

At the top of the three-tiered system is the US Central Credit Union, which has its headquarters in Kansas City, belongs to, and serves the needs of the credit union leagues, providing them with a series of services. Most states have credit union leagues, to which the third-tier credit unions belong, providing them with operational support services, clearing services, electronic transactions, and short and long-term funding. (Delfiner *et al.*, 2006:10).

The strategy of the United States Central Credit Union includes (Delfiner *et al.*, 2006:10):

- Creating value for its members through its roles as aggregator, facilitator and partner
- Offering value-added investment and lending products and services to ensure adequate system liquidity
- Facilitating the delivery of cooperatively priced, value-added payment products and services to members through partnership of third-party vendors
- Maintaining the United States central's position of safety and soundness.

The United States Central Credit Union is the nation's only wholesale corporate credit union, and supports corporate credit unions in serving their members through innovative and premier financial services. Corporate credit unions occupy the middle tier and offer investments, loans and a range of corresponding products and services to the natural-persons credit unions and have strong links to the state credit union league (SunCorp, 2006:1).

The retail credit unions form the third tier and serve members from local communities, employers, and associations. The National Credit Union Association (NCUA) refers to retail credit unions as 'natural person' credit unions. NCUA is an independent federal agency; it is the primary supervisor of federally chartered credit unions. The NCUA provides a central liquidity facility and administers the National

Share Insurance Fund, which provides deposit insurance for federal credit unions and many state credit unions (CPSS, 2003:437).

Trade associations such as the National Credit Union Association (NCUA), Association of Corporate Credit Unions (ACCU), National Association of Federal Credit Unions (NAFCU) and the National Association of State and Credit Union Supervisors (NASCUS) provide legislative and regulatory advocacy, as well as educational programs for credit unions (SunCorp, 2006:1).

2.7.4 The co-operative banking sector in India

Kumar (2001:168) states that the structure of co-operative banks in India is based on a federal character. It consists of primary societies at village level, co-operative banks at district level and state co-operative banks at apex level. Though the organisation provides credit as well as non-credit products in both the agricultural and non-agricultural spheres, the non-credit component has not made much progress. In fact, the co-operative movement in India began with the objective of organising and developing a special agency for providing credit for agriculture (Singh & Ali, 2000:105).

Singh and Ali (2000:105) further state that the central co-operative bank forms an important link in the value chain as it helps in balancing the deficits and surpluses in the resources of the constituents. It utilises local savings for financing local production and provides a channel at the district level for the funds to flow from the state co-operative bank, the money market and the Reserve Bank of India (Kumar, 2001:168).

At the entry level are the primary co-operative societies, which cater for the needs of the members who may be drawn from one or more villages. In certain states, grain banks also serve as primary credit societies. The long-term credit structure consists of the central land mortgage banks and primary land mortgage banks (Kumar 2001, 168-169).

Krishnamacharyulu and Ramakrishan (2011:452) state that there are two types of co-operative banks in India, short term lending oriented co-operative banks and long term oriented co-operative banks.

Within the short term lending oriented co-operative bank category there are three sub-categories of banks, which include state co-operative banks, district co-operative banks and primary agricultural co-operative banks. Three institutions supply short-term credit (Krishnamacharyulu & Ramakrishan, 2011:452), namely:

- Primary credit societies. These are formed at the village or town level with borrower and non-borrower members residing in one locality. The operations of each society are restricted to a small area so that the members know each other and are able to watch over the activities of all members to prevent fraudulent activities.
- Central co-operative banks. These banks operate at the district level having some of the primary credit societies belonging to the same district as their members. These banks provide loans to their members (*inter alia* primary credit societies) and function as a link between the primary credit societies and state co-operative banks.
- State co-operative banks. These are the apex (highest level) co-operative banks in all the states of the country. They mobilise funds and help in its proper channelization among various sectors. The money reaches the individual borrowers from the state co-operative banks through the central co-operative banks and the primary credit societies.

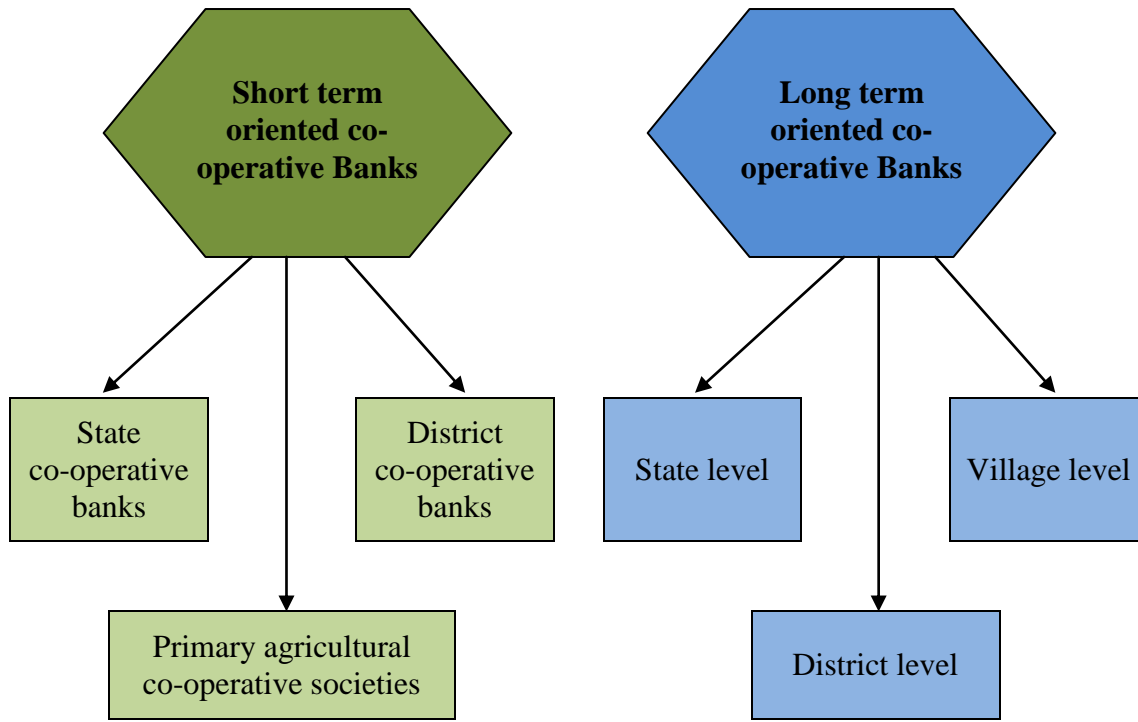
Within the long term lending oriented co-operative banks category there are state co-operative banks, rural development banks, and district co-operative banks (Krishnamacharyulu & Ramakrishan, 2011:452).

Krishnamacharyulu and Ramakrishan (2011:452) state that the co-operative banking structure in India is divided into five categories, namely:

- Primary urban co-operative banks
- Primary agricultural credit societies
- District central co-operative banks
- State co-operative banks

- Land development banks

Figure 2.2: Graphical illustration of Short- and Long Term oriented co-operative banks



2.7.5 The co-operative banking sector in South Africa

This section provides a discussion on the different types of co-operative banks in South Africa. A with the provision of a discussion on each of these co-operative banks in the subsequent sub-sections

According to the Government Gazette (2008:14), the following types of co-operative banks exist in South Africa:

- A primary savings co-operative bank
- A primary savings and loans co-operative bank
- A secondary co-operative bank
- A tertiary co-operative bank.

2.7.5.1 Primary savings co-operative bank

A primary co-operative is a co-operative formed by a minimum of five natural individuals whose purpose is to provide services to its members and to facilitate community development.

Primary savings co-operative banks provide services and in addition, participate in or undertake the following limited banking services:

- The soliciting and accepting of deposits from its members
- The opening of savings accounts for its members, in the name of each member, into which that member may deposit or withdraw money and from which that member may instruct the co-operative to transfer or pay money
- The borrowing of money from the department agency for co-operative banks and its members up to a prescribed percentage of the assets held by it
- The opening of a savings account or cheque account, in the name of the co-operative, with any banking institution
- The making, drawing, accepting, endorsing, or negotiating of negotiable instruments that are paid to the order of, or made out and endorsed by, that co-operative bank
- The providing of trust or custody services to members
- The conducting of any additional banking services as may be prescribed by the Minister of Finance
- The investing of money deposited with it in investments prescribed by the Minister of Finance.

2.7.5.2 Primary savings and loans co-operative bank

Primary savings and loans co-operative banks may, in addition to the services that may be provided by primary savings co-operative banks, provide the following services:

- The granting of secured and unsecured loans to its members to a prescribed maximum aggregate value prescribed by the Minister of Finance
- The conducting of any additional banking services and the investing of money with it in any investments prescribed by the Minister of Finance.

2.7.5.3 Secondary co-operative banks

Secondary co-operative banks, in addition to the services that may be provided by primary savings and loans co-operatives, also provide the following services:

- The trading of financial instruments on behalf of its members
- The opening of an account with a bank registered under the banks act to facilitate foreign currency transactions
- The conducting of such additional banking services and the investing of money deposited with it in any investments prescribed by the minister.

2.7.5.4 Tertiary co-operative banks

Tertiary co-operative banks may, in addition to the services that may be provided by secondary co-operative banks, conduct such additional banking services and the investing of money deposited with it in any investments prescribed by the Minister.

From the above it is evident that South Africa is not only a newcomer to the co-operative banking environment, but many South Africans are dependent on credit unions or SACCOs. South Africa may be a novice when it comes to the various operating styles used by developed countries but this is just because the Co-operative Banks Act (Act 40 of 2007) was only implemented in 2008. Upon further research, it will become possible for South African co-operative banks to implement certain operating styles used by more advanced co-operative banks in more advanced countries. As this is a relatively new territory in South Africa, there is not much information available about co-operative banks in South Africa.

2.8 CONCLUSION

In light of the above, it is evident that co-operative banks are unique in their nature. Section 2.2 provided a discussion on the various definitions regarding the different terminology used throughout this study. Included in this section were the definitions of the terms ‘bank’, ‘co-operative bank’, ‘credit union’ and ‘commercial bank’. A discussion on the vast differences that exist between commercial and co-operative banks, which serve to highlight the unique nature of co-operative banks, was also provided.

In Section 2.3, the origin of co-operative banks in different countries including Europe, Canada, the United States of America, and India was highlighted. Europe was selected because of the fact that Rabobank - currently the world’s largest co-operative bank - is situated in the Netherlands. Canada and the USA were chosen for these countries’ contribution as these co-operative banks play a major role in fighting extortion and enabling millions of their members to have access to consumer loans and build equity in housing and small businesses. Indian co-operative banks were discussed due to the constitution of the Indian financial system and the role these co-operative banks play. Another important reason is that India, as is the case with South Africa, has a formal and informal sector with regard to the co-operative banking environment.

In Section 2.4 the origin of co-operative banks in South Africa was discussed. The South African co-operative banking sector has an informal, semi-formal, and formal sector. The discussion further focussed on the transition from a co-operative into a co-operative bank, the relevant individuals involved in the process, and the relevant required documentation when applying for registration.

In Section 2.5, a discussion regarding the functioning of co-operative banks was provided and included the common features that co-operative banks shared.

Section 2.6 highlighted the different co-operative banking models, as any co-operative bank, regardless of where it is situated, is based on a co-operative banking model. The co-operative banking models under discussion included the national centralised system, the regional centralised system, the decentralised systems with integration

under a legal mandate, and finally the decentralised systems with voluntary integration.

Section 2.7 contained explanations on the structure of the co-operative banking environment in the relevant countries, which include Europe, Canada, the United States, India, and finally South Africa. This included an in-depth discussion on the functioning of co-operative banks in South Africa, including the different types of co-operative banks in South Africa, primary savings co-operative banks, the primary savings and loans co-operative banks, secondary co-operative banks and tertiary co-operative banks.

This chapter provided evidence of the unique nature of co-operative banks, which emphasised the differences between co-operative banks and commercial banks. It is also evident that although co-operative banks are based on certain models, differences do exist between co-operative banks, depending on the country in which they are situated. In the light of the above, it is evident that co-operative banks play a very important role in South Africa and although co-operative banks are relatively new to the South African banking environment, they are expanding rapidly.

The next chapter (Chapter 3), will include an investigation on co-operative banking legislation and regulation in order to determine the extent to which commercial banking regulation is similar to co-operative banking regulation. A discussion regarding the recommendations made by the Basel Committee on Banking Supervision (known as the Basel II and Basel III requirements) will be provided.

Chapter 3 aim to: First provide evidence that the recommendations made by Basel II and Basel III are not applicable to co-operative banks in South Africa from a regulatory perspective, and secondly, the Basel II recommendations, to be further elaborated on in Chapter 4, provide a basis and best practice for determining how operational risk should be managed and measured. Other considerations to be investigated in Chapter 3 concern why the Basel recommendations are not applicable to South African co-operative banks, the cost of implementation, and the unsophisticated nature of the majority of South African co-operative banks still being predominantly credit unions.

CHAPTER 3
COMMERCIAL BANKING AND CO-OPERATIVE BANKING
LEGISLATION AND REGULATION

“The Government will place more emphasis on the development of a co-operative movement to combine the financial, labour and other resources among the masses of the people, rebuild our communities and engage the people in their own development through sustainable economic activity”
(Mbeki, 1999).

3.1 INTRODUCTION

Chapter 2 provided an overview of the co-operative bank, its terminology and history, as well as definitions of specific terms in Section 2.2, including ‘bank’, ‘co-operative bank’, ‘credit union’ and ‘commercial bank’. In addition, it highlighted the different terminology used in different parts of the world. Sections 2.3 and 2.4 provided a discussion on the history of co-operative banks, to highlight the origin of co-operative banks as well as the functioning of co-operative banks. The discussions in Sections 2.5, 2.6 and 2.7 provided insight into the different structures within the co-operative banking environment. Chapter 2 also highlighted the characteristics and unique nature of co-operative banks.

Chapter 3 investigates the legislative and regulatory environments applicable to commercial- and co-operative banks. The aims of Chapter 3 are to determine, in light of the unique characteristics of co-operative banks identified in Chapter 2, if similar legislation and regulations apply to both commercial banks and co-operative banks, and if legislation and regulations applicable to co-operative banks further emphasise the unique nature of co-operative banks as already identified in Chapter 2. As the focus of the research is on co-operative banks, and in particular the measurement and management of operational risk in co-operative banks, the discussion will not investigate the various legislation in great detail, but rather seek to determine whether any guidelines or requirements are imposed through legislation and/or regulations on operational risk practices in co-operative banks.

From a research topic perspective, the following discussion (Section 3.2) will first investigate the primary legislation relevant to the commercial banking environment. This will include a broad overview of the Bank Act (94 of 1990), the National Credit Act (35 of 2005), the Prescribed Rate of Interest Act (55 of 1975) and the South African Reserve Bank Act (90 of 1989). It should be noted that some of the aforementioned legislation applies to both the commercial and co-operative banking environments, and will therefore only be discussed under its respective heading. The applicability of the said section of legislation on the co-operative banking environment will then be highlighted.

Secondly, in Section 3.3 specific legislation pertaining to co-operative banks, not previously discussed, will be discussed with an outline of the Co-operative Banks Act (40 of 2007) and the Co-operative Act (14 of 2005).

Although the King Commission's proposals on corporate governance (King III) apply to all companies in South Africa, this study will not provide an in-depth discussion of the King III proposals, as the direction of the research focus is towards the measurement and management of operational risk in co-operative banks. However, due to the responsibilities placed on boards, specifically regarding risk management, and to determine whether any guidelines or requirements are imposed through the King III corporate governance risk proposals on operational risk practices in co-operative banks, these proposals should also form part of the investigation and are discussed as such in the third instance under Section 3.4.

Fourthly, Section 3.5 provides a discussion on commercial banking regulation, focussing on the most prominent set of regulatory requirements imposed on commercial banks. An outline of the Basel II and Basel III frameworks and prudential requirements, regarded as the main regulatory aspects commercial banks need to comply with, is provided. The applicability of these regulations on co-operative banks will form part of the investigation.

Finally, Section 3.6 will investigate the regulations pertaining to co-operative banks, specifically focussing on the Co-operative Bank Act, 2007: Regulations in terms of Section 86, and the Co-operative Bank Act Supervisors' Rules.

3.2 COMMERCIAL BANKING LEGISLATION

Section 3.2 investigates the primary legislations relevant to commercial banks in South Africa, being the Banks Act (94 of 1990), the National Credit Act (34 of 2005), the Prescribed Rate of Interest Act (55 of 1975), and the South African Reserve Bank Act (90 of 1989). The South African Reserve Bank (SARB), as the central bank of South Africa, is responsible for banking regulation, legislation and supervision. The Registrar performs this function, *inter alia* through the issuing of banking licences to banking institutions and monitoring these institutions' activities. The SARB appoints the registrar with the approval of the Minister of Finance. The SARB may also appoint a deputy registrar to assist the registrar with his/her responsibilities in regulating Commercial Banks (South African Reserve Bank, 2012).

3.2.1 The Banks Act (94 of 1990)

The Banks Act (94 of 1990) (hereafter referred to as the Banks Act) is important, as it regulates the borrowing and lending activities of banks and emphasises the importance of risk management as the basis for determining the acceptability of operations (Goosen *et al.*, 2008:268). The Banks Act regulates the banking environment from bank inception, its operations, management and requirements in the event of closure. Only registered banks are allowed to take deposits from the general public. Should a bank run into financial difficulties and be unable to repay its depositors, the public will lose their money. As a result, in order to ensure that the deposits taken from the public are used responsibly, and to protect the public at large, banks have to be supervised (SARB, 2012). The purpose of the Banks Act therefore is to, "Provide for the regulation and supervision of the business of public companies taking deposits from the public; and to provide for matters connected therewith" (Government Gazette, 2007:2).

In this regard, the Banks Act should be read in conjunction with the Companies Act (61 of 1973). The Banks Act is divided into nine chapters dealing with the interpretation and application of the act, administration, establishing and registration of banks, shareholding, functioning with reference to the companies act, prudential requirements, bank conduct, control of activities of unregistered persons and general

provisions. Key aspects noted in terms of the Banks Act are (Government Gazette, 2007:11-76):

- Applicable to all deposit-taking institutions (pages 11 to 13: business of a bank)
- Exclusion of specific institutions from the Banks Act (paragraph 2, page 15)
- The provision by banks of specific information to the Registrar of Banks (paragraphs 7, 65: pages 17, 62)
- Directors of a bank have a “duty of care and skill” (paragraph 60.1, 60.1A(c), page 53)
- Directors should ensure that an independent compliance function forms part of the bank’s risk management framework (paragraph 60A, page 57)
- Directors should ensure that an adequate and effective process of corporate governance exists, consistent with the nature, complexity and risks inherent in the activities and the business of the bank (paragraph 60B, page 57)
- Directors should ensure that a risk committee is appointed with specific functions in terms of the act, for example functions relating to risk policies, procedures, practices and controls, concentration risks, risk mitigation, etc. (paragraph 64A, page 60)
- Certain prudential requirements stipulated by the act relating to minimum share capital and reserve funds, liquid assets and large exposures (paragraphs 70 to 73, pages 71 to 76).

The following section provides an overview of the National Credit Act (34 of 2005).

3.2.2 The National Credit Act (34 of 2005)

The National Credit Act (34 of 2005) (hereafter referred to as NCA) applies to every credit agreement concluded between parties dealing at arm’s length. A credit agreement may include a credit transaction, a credit facility, or any combination of the aforementioned. When taking into account all the activities and transaction that banks conduct, as well as all the activities that are included in the act, it becomes apparent

that the act is very relevant to all types of banks. The need for a review of the consumer credit legislation has been recognised since the South African Law Reform Commission's 1994 review of the now repealed Usury Act 73 of 1968. Subsequent reports, including the Strauss Report on Rural Finance, have commented on the weaknesses in South Africa's consumer credit legislation. A range of political, social and economic changes have influenced the consumer credit market since 1968 and have coincided with major technological advances (Goodwin-Groen, 2006:12).

The weaknesses in South Africa's consumer legislation are due to inappropriate legislation and a lack of enforcement. The increasing use of credit by low-income consumers came with an urgent need for a closer examination of the credit legislation. An in-depth review of credit legislation resulted in the promulgation of the National Credit Act (34 of 2005) in 2006, with the purpose of solving the consumer credit problems (Goodwin-Groen, 2006:13,15).

According to the Government Gazette (2006:2), the primary objectives of the National Credit Act (NCA) are to:

- Promote a fair and non-discriminatory marketplace for access to consumer credit, and for that purpose to provide for the general regulation of consumer credit and improved standards of consumer information
- Prohibit certain unfair credit and credit-marketing practices
- Promote responsible credit granting and use, and for that purpose to prohibit reckless credit granting
- Provide for debt re-organisation in cases of over-indebtedness
- Regulate credit information
- Provide for registration of credit bureaux, credit providers and debt counselling services
- Establish national norms and standards relating to consumer credit
- Promote a consistent enforcement framework relating to consumer credit

- Establish the National Credit Regulator and the National Consumer Tribunal
- Repeal the Usury Act (1968) and the Credit Agreements Act (1980)
- Provide for related incidental matters.

The purposes of the NCA are to promote and advance the social and economic welfare of South Africans, promote a fair, transparent, competitive, sustainable, responsible, efficient, effective and accessible credit market and industry, and to protect consumers (Government Gazette, 2006:30).

The fundamental purpose of the NCA is therefore, to achieve integrity in the credit market and remove the multitude of unfair practices, inappropriate disclosure and anti-competitive practices from the market (Goodwin-Groen, 2006:16). The NCA applies to all banks, including co-operative banks, as well as credit providers who have either 100 credit agreements or more, or credit agreements with a book value of R500 000 or more loan portfolio and all types of credit extended by a supplier of goods, excluding incidental credit such as trade credit. If the consumer is a juristic (legal) entity, the NCA applies if the turnover or net asset value of the entity is less than R1 million at the time of loan application, and the loan is less than R250 000. Since the NCA does not reach informal credit providers, the NCE may not govern a significant proportion of the micro-credit market (Calvin & Coetzee, 2010:7). Banks and credit providers are required to register as an authorised credit provider with the National Credit Regulator, who will oversee compliance to the NCA and perform consumer education about the rights and obligations under this new legislation (Jones & Schoeman, 2006).

The next section provides an overview of the Prescribed Rate of Interest Act (55 of 1975), which should be read in conjunction with the NCA already discussed.

3.2.3 Prescribed Rate of Interest Act (55 of 1975)

The Prescribed Rate of Interest Act (55 of 1975) and the National Credit Act (34 of 2005) go hand in hand, as both these Acts govern the rate of interest. The National Credit Act (34 of 2005), as well as in the Prescribed Rate of Interest Act (55 of 1975), stipulate the maximum interest rates applicable to credit transactions. Having a

prescribed interest rate protects the poor and others from an inferior bargaining position and exploitation (Moorcroft, 2011). The purpose of the Prescribed Rate of Interest Act (55 of 1975) (hereafter referred to as PRIA) is to, “Provide for the calculation of interest on a debt, in certain circumstances, at a prescribed rate; for the payment of interest on certain judgement debts; and for matters connected therewith.”

The PRIA consists of the following sections (Visser & Potgieter, 2009:137-138):

- Interest on a debt to be calculated at a prescribed rate in certain circumstances, stating that the Minister of Justice may in some instances prescribe the rate of interest after approval by the Minister of Finance.
- Interest on a judgment debt where “Judgment debt” is defined as a sum of money due in terms of a judgment or an order. This includes an order as to costs of a court of law, and includes any part of such a sum of money, but does not include any interest that does not form part of the principal sum of a judgment debt. Every judgement debt that does not bear any interest after the date of the judgement, has to bear interest from the day on which such judgement debt is payable, unless that judgement provides otherwise.
- Interest on unliquidated debts specifies that the amount of every unliquidated debt, which was determined by a court of law or by an agreement between the creditor and the debtor, has to bear interest as discussed in the section named “Interest on a debt to be calculated at a prescribed rate in certain circumstances”. Subject to any other agreement between the parties and the provisions of the NCA, the interest discussed in the section named “Interest on a debt to be calculated at a prescribed rate in certain circumstances” has to run from the date on which there is claim for payment of the debt.
- Transitional provisions elaborates on the interest applicable during the transition period before any rate of interest was prescribed by the Minister of Finance, stating that the rate of interest prescribed in the first notice published in the gazette will suffice.
- Definitions where the terms “court of law” and “demand” are defined. “Court of law”, in terms of the act, is defined as a court having jurisdiction in respect of the

matter in question. “Demand” is defined as a written demand stating the creditor's claim in such a manner as to enable the debtor to reasonably assess the quantum thereof.

- Short title and commencement.

As the NCA applies to all credit-granting institutions as discussed in Section 3.2.2, including co-operative banks, and as the PRIA should be read in conjunction with the NCA (discussed above), the applicability of the PRIA to co-operative banks becomes self-explanatory. In the next section the South African Reserve Bank Act (90 of 1989) will be discussed, as the role of bank supervision is performed by the SARB.

3.2.4 South African Reserve Bank Act (90 of 1989)

The importance of the discussion of the South African Reserve Bank Act (90 of 1989), hereafter referred to as the SARB Act, is to provide an understanding of the SARB's supervisory function, conducted through its Bank Supervision Department, over South African banks. The objective of the supervisory function is the long-term stability of the banking sector (Goosen *et al.*, 2008:268). According to Goodhart and Haug (2004:1059-1060), commercial banks are reliant on their central banks, not only as lender of last resort, but also to regulate the interbank market. Therefore, different laws pertaining to the SARB become important because these laws also have an effect on South African commercial banks. Although the SARB Act is not directly related to commercial banks (the act has direct bearing on the SARB), it does have an indirect effect on commercial banks and their operations.

The following examples illustrate how the SARB's legislation may influence commercial banks.

- As it is the primary function of the SARB to issue banknotes, the SARB has to ensure that there is an adequate amount of banknotes available to meet the public demand and to replace unfit notes. However, the SARB should not print more banknotes than required, as this could lead to inflation. If too many banknotes are available than is required, the value of the currency in which the notes are printed will begin the decrease (Goosen *et al.*, 2008:146).

- Another function of the SARB is to protect the local currency (Rand), or in other words, keep inflation between certain pre-determined levels. If for example, there are too many banknotes in circulation creating upward inflationary pressure, inflation may rise above the inflation targeting levels. In an attempt to counteract rising inflation the SARB may raise the Repo Rate (the reference rate at which commercial banks lend money), resulting not only in a higher cost of funds for commercial banks, but also impacting market liquidity (Organisation for Economic Co-operation and Development, 2010:69).

The purpose of the SARB Act, according to the South African Reserve Bank Act (90 of 1989) is, “To consolidate the laws relating to the South African Reserve Bank and the monetary system of the Republic; and to provide for matters connected therewith.”

The Currency and Banking Act (Act 31 of 1920) established The South African Reserve Bank, and the SARB Act, as amended, governs it. The Banks Act together with the SARB Act assigns responsibility for the registration and supervision of banks to the SARB. The SARB Act provides for the assignment of powers for bank registration and supervision, within the SARB, to the Bank Supervision Department (BSD), headed by the Registrar of Banks (International Monetary Fund, 2010). The Banks Act together with the SARB Act, also provide a comprehensive legal framework for banking supervision in South Africa. In terms of these acts, the Registrar of Banks is accountable to govern the SARB and has a direct reporting line to the Minister of Finance (International Monetary Fund, 2010).

According to the Bank for International Settlements (u.d:159-160), the SARB Act provides that the SARB may organise and participate in a clearing system. Listed below are a few important roles played by the SARB (Bank for International Settlements, u.d:159-160):

- The execution of monetary policy, which includes *inter alia*, the conducting of repurchase transactions and open-market transactions with banking institutions, to manage the liquidity in the money market.
- The SARB guides the evolution of the payment system, and focuses primarily on the overall soundness and effectiveness of the national payment system. The Reserve Bank participates as a member as well as overseer of the payment system.

- The SARB provides stability in order to execute monetary policy. This presupposes reliable and efficient clearing and settlement systems. The SARB, in its role as banker to banks, also has a direct interest in the stability of the payment system and the banking system, insofar as it acts as lender-of-last-resort. A deputy governor of the SARB is the chairman of the Policy Board for Financial Services and Regulation. The objective of the Board is to advise the Minister of Finance on policy matters relating to financial services and regulation:
- The SARB issues banknotes and coins in South Africa
- The SARB holds loans, settlement and cash reserve accounts of registered banks
- The SARB provides banking and payment services to the government as well as to the neighbouring countries' central banks.

It is important to note that the SARB Act, not only governs the activities of commercial banks, but has direct bearing on co-operative banks with deposits of R20 million or more (Calvin & Coetzee, 2010:6). Section 3.3 will further discuss this aspect of banking supervision. Once a co-operative bank is registered with the SARB in terms of paragraph 41(1), page 38 of the Co-operative Banks Act (40 of 2007), the SARB Act will form part of the legislation that the co-operative bank has to adhere to.

The above discussion provides insight into the most prominent legislation that affects commercial, and in some instances co-operative, banks. However, it is acknowledged that the legislation cited is by no means comprehensive, as various other legislation impacts the banking industry, in either a direct or an indirect manner. It is believed that the legislation cited represents the major sections of legislation applicable to this research.

In Section 3.3, the main legislation applicable to co-operative banks will be discussed. Again, the legislation cited is not claimed to be comprehensive, but it is believed to represent the major sections of legislation applicable to the research.

3.3 CO-OPERATIVE BANKING LEGISLATION

According to Calvin and Coetzee (2010:6), the three primary sections of legislation that govern the microfinance sector in South Africa include:

- The National Credit Act (34 of 2005), which governs all credit granted to consumers, as well as loans to legal entities with annual turnovers or net worth of less than R1 million
- The Co-operative Banks Act (40 of 2007), which governs the deposit-taking activities of co-operative banks with deposits of between R1 million and R20 million
- The Banks Act (94 of 1990), which governs the deposit-taking activities of the commercial banks and financial co-operative banks with deposits of R20 million and above.

However, a review of both the Co-operative Banks Act (40 of 2007) and the Banks Act (94 of 1990) indicates that the Banks Act (94 of 1990) does not apply to co-operative banks. In this regard, co-operative banks are explicitly excluded from the Banks Act (see Co-operative Banks Act (40 of 2007) (page 68) regarding laws amended, in conjunction with the Banks Act (94 of 1990) (page 15, paragraph 2). When reviewing the co-operative Banks Act (40 of 2007) (page 38 and 40, paragraphs 41 and 45), the banking supervision role of the SARB regarding co-operative banks with deposits of R20 million and above, becomes evident. As a result, the primary sections of legislation as identified by Calvin and Coetzee (above) are amended.

The primary sections of legislation that govern co-operative banks in South Africa include:

- The Co-operative Act (14 of 2005) governing all co-operatives, and providing for the unique nature of co-operatives in general (discussed as part of the unique nature of co-operative banks in Chapter 2). This Co-operative Act (14 of 2005) is discussed in Section 3.3.1.
- The Co-operative Banks Act (40 of 2007) to be discussed in Section 3.3.2.
- The National Credit Act (34 of 2005), which governs all credit granted to consumers, as well as loans to legal entities with an annual turnover or net worth of less than R1 million (discussed in Section 3.2.2 above).

- The South African Reserve Bank Act (90 of 1989), which governs the banking supervision role of the SARB applicable to the activities of commercial banks and co-operative banks with deposits of R20 million and above (discussed in Section 3.2.4 above).

A discussion regarding co-operative bank legislation should start with an awareness of the different supervisory parties involved in co-operative banking legislation. Co-operative banks have to adhere to legislation as prescribed by the supervisor or the Minister of Finance. Co-operative legislation identifies two supervisory bodies: the SARB supervisor and the Co-operative Banks Development Agency (CBDA). The South African Reserve Bank, with the approval of the Minister of Finance, is responsible for appointing a suitable employee in the position of SARB supervisor. The supervisor will have the authority to perform all the necessary functions required of him/her, which relate to all primary co-operative banks that hold deposits in excess of R20 million, all secondary co-operative banks, as well as all tertiary co-operative banks (Government Gazette, 2008:38).

The Co-operative Banks Development Agency (CBDA) supervises primary co-operative banks that hold deposits of R20 million or less. The co-operative banks division of the Financial Stability Department (FinStab) of the bank supervises primary co-operative banks that hold deposits of above R20 million, and secondary and tertiary co-operative banks (Co-operative Bank Development Agency, 2011:3).

According to the National Treasury (2012), once a co-operative bank has registered with the SARB, the supervisor within the Co-operative Banks Development Agency (CBDA) no longer has the authority to exercise the powers and perform the functions conferred on him/her, by or in terms of the Co-operative Banks Act (40 of 2007).

3.3.1 Co-operatives Act (14 of 2005)

The Co-operatives Act (14 of 2005) replaced the previous Co-operatives Act (91 of 1981). The implementation of the Co-operatives Act (14 of 2005), hereafter referred to as the Co-operative Act, signalled the government's intention to support the emergence of co-operatives. The aims of the Co-operatives Act are, *inter alia*, to promote equity and greater participation by black people, especially those in rural areas, woman, persons with disabilities and youth, in the formation and management

of co-operatives, and to ensure the design and implementation of co-operative support measures across all spheres of government (Brown, 2007:85).

The purpose of the Co-operative Act is to, “Provide for the formation and registration of co-operatives; the establishment of a Co-operatives Advisory Board; the winding up of Co-operatives; the repeal of Act No. 91 of 1981; and matters connected therewith” (Government Gazette, 2005:2).

The Co-operatives Act was promulgated in recognition of (Government Gazette, 2005:2):

- The co-operative values of self-help, self-reliance, self-responsibility, democracy, equality and social responsibility
- The fact that a viable, autonomous, self-reliant and self-sustaining co-operative movement can play a major role in the economic and social development of the Republic of South Africa, in particular by creating employment, generating income, facilitating broad-based black economic empowerment and eradicating poverty
- The fact that the South African economy will benefit from increasing the number and variety of viable and sustainable economic enterprises
- The fact that government is committed to providing a supportive legal environment to enable co-operatives to develop and flourish.

The Co-operative Act was promulgated in order to (Government Gazette, 2005:2):

- Ensure that international co-operative principles are recognised and implemented in the Republic of South Africa
- Ensure co-operatives to register and acquire a legal status separate from their members
- Facilitate the provision of targeted support for emerging co-operatives, particularly those owned by women and black people.

The Co-operative Act recognises that a viable, autonomous, self-reliant and self-sustaining co-operative movement can play a major role in the economic and social development of South Africa, in particular by creating employment, generating income, and eradicating poverty. The Co-operative Act provides a legal framework within which co-operatives can operate (Havenga & Havenga, 2009:340).

The Purpose of the Co-operative Act is to (Government Gazette, 2005:12-14):

- Promote the development of sustainable co-operatives that comply with co-operative principles
- Encourage individuals and groups who subscribe to values of self-reliance and self-help, and who choose to work together in democratically controlled enterprises, to register co-operatives in terms of the Co-operative Act
- Enable such co-operative enterprises to register and acquire a legal status separate from their members
- Promote equity and greater participation by black persons, especially those in rural areas, women, persons with disability and youth, in the formation and management of co-operatives
- Establish a legislative framework that preserves a co-operative as a distinct legal entity
- Facilitate the provision of support programmes that target emerging co-operatives
- Ensure the design and implementation of the co-operative development support programmes by all the agencies of national departments, and compliance with uniform norms and standards prescribed by the Co-operative Act
- Ensure the design and implementation of the co-operative support measures across all spheres of government, including delivery agencies, and adherence to a uniform framework of established norms and standards that reflect fairness, equity, transparency, economy, efficiency, accountability and lawfulness

- Facilitate the effective co-ordination and reporting mechanism across all spheres of government through the department.

The Co-operative Act applies to all registered co-operatives in South Africa (Government Gazette, 2005:16). The Co-operatives Act provides for the registration, membership, types, management, activities, and functioning of co-operatives.

3.3.2 Co-operative Bank Act (40 of 2007)

Co-operative banks play a significant role in the South African economy. Co-operative banks provide services other than those provided by commercial banks. Prior to the Co-operative Banks Act (Act 40 of 2007), the Co-operative Banks Bill of 2005 was established (Government Gazette, 2005:2):

- To ensure that international co-operative principles are recognised and implemented in South Africa
- To enable co-operatives to register and acquire a legal status separate from their members
- To facilitate the provision of targeted support for emerging co-operatives, particularly those owned by woman.

Kirsten (2006:7) states that the Co-operative Banks Bill of 2005 first seeks to formalise the co-operative banking industry by offering it a legal standing in its operations. Secondly, it seeks to bring the industry into the regulatory framework to afford its depositors the same safety and stability as enjoyed by the formal commercial banks' depositors. Thirdly, the Co-operative Banks Bill provides for the creation of support organisations for the co-operative banks, in order to ensure a continuous and sustainable capacity programme for the industry. This is necessary to ensure the growth and stability of the industry. In 2007 the Co-operatives Banks Bill was promulgated as the Co-operative Banks Act (40 of 2007), hereafter referred to as the CBA, and was implemented in 2008.

The aim of the CBA is to provide a regulatory framework for deposit-taking entities other than banks and mutual banks to enhance third-tier banking development and improve competition in the South African banking industry (Calvin & Coetzee,

2010:6). In this regard, the CBA should be read in conjunction with the Co-operatives Act (14 of 2005). The CBA is divided into twelve chapters dealing with: The purpose and application of the act; the registration, constitution, functions, management and auditing of a co-operative bank; prudential requirements and large exposures; the deposit insurance fund; the amalgamation, division, conversion, and transfer of co-operative banks; the representative bodies and support organisations; the administration of the act; the co-operative development agency; appeals, offences and penalties; and general provisions. Key aspects to be noted in terms of the CBA are:

- The application of the Act (page 14 paragraphs 3 and 4)
- The types of co-operative banks (page 14 paragraph 5) as discussed in Sections 2.2.3, 2.4.4 and 2.7.5
- That the director, managing director or executive officer is a fit and proper person (pages 16, 18, 24 and 26, paragraphs 7, 9, and 16)
- The banking services provided by a co-operative bank (pages 22 and 24, paragraphs 14 and 15) and discussed in Sections 2.2.3, 2.4.4 and 2.7.5
- The submission of specific information to the supervisor (pages 26 and 44, paragraphs 19 and 50)
- The prudential requirements to be met and maintained by co-operative banks (pages 26 and 28, paragraph 20)
- The appointment and role of supervisors in the administration of the act (pages 38 to 46, chapter 8 and chapter 9 regarding the Co-operative Banks Development Agency)
- The schedule of laws amended (page 68).

The CBA applies to all incorporated co-operative banks registered under the act, as well as to any co-operative registered under the Co-operatives Act, which take deposits from the public and have 200 or more members, or hold deposits of members to the value of R1 million or more (paragraph 3(1) page 14 of CBA). It is also

required of a co-operative bank to register with the SARB if its deposits reach R20 million or more (Calvin & Coetzee: 2010:11).

The above discussion provides insight into the most prominent legislation affecting co-operative banks. However, it is reiterated that the legislation cited is by no means comprehensive as various other legislation impact the co-operative banking environment in either a direct or an indirect manner. It is believed that the legislation cited represents the major sections of legislation applicable to this research.

Section 3.4 will provide an overview of the King Code and Report on Corporate Governance for South Africa 2009 (King III), with a focus on some selected principles proposed for good corporate governance.

3.4 OVERVIEW OF KING III

Corporate Governance refers to the mechanisms through which a bank and its management are governed. Good corporate governance is a key structural and institutional feature of a functioning market economy. Many developing countries, specifically South Africa, recognise the fact that a healthy and competitive corporate sector is necessary for their sustainable and shared growth, and that corporate governance is fundamental for the private sector (Tarantino, 2008:75). As South Africa attempts to attract a share of foreign investments, investors need assurance that their investments will be secure and efficiently managed, based on a transparent and accountable process. Effective risk management can be regarded as a method of providing assurance of a sound investment to investors (Tarantino, 2008:75).

A South African initiative to develop a corporate governance framework for risk management was launched during 2002 in the form of the King Committee on Corporate Governance. The purpose of the King Committee was to promote the highest standards of corporate governance in South Africa, which includes the banking industry. A risk framework, as part of a bank's corporate governance, must provide assurance with regard to (Tarantino, 2008:75-76):

- Effectiveness and efficiency of operations
- Safeguarding of assets

- Business sustainability
- Reliability of reporting
- Behaving responsibly towards stakeholders.

The King Code and Report on Corporate Governance for South Africa (King III) was released on 1 September 2009, with an effective date of 1 March 2010 (Bakker & Kloosterhof, 2010:393).

The key principles of King III relate to effective leadership, sustainability and corporate citizenship. The board of directors should set the ethical values of the firm and define corporate strategy. Corporate citizenship requires that a bank operate in a sustainable manner. Banks are required to consider the social, environmental and economic impacts of their operations (Correia *et al.*, 2011:1-28).

According to the South African Reserve Bank (2012) all entities, including banking institutions, are expected to comply with the principles set out in King III as best practice recommendations. Similar expectations, namely to comply with the King III principles, are imposed on all companies in South Africa listed on the Johannesburg Stock Exchange. As a result, the general expectation is that all companies in South Africa, irrespective of size, type or form, should comply with the King III proposals. This expectation includes co-operative banks. This section will only discuss the importance of King III from a banking perspective.

King III is based on principles that accept that there is no 'one size fits all' in the solution to corporate governance issues. King III encourages banks to tailor standard corporate governance principles as appropriate to the size, nature, and complexity of the relevant bank (Beck, 2011:213). King III states that the board of directors should ensure the effective management of the bank's ethics. This involves ensuring an ethical corporate culture, articulation and adherence to ethical standards, and implementing a code of conduct and ethics-related policies. There should be an integration of the code of conduct with a bank's operations and the bank's ethics performance should be addressed, monitored and disclosed (Correia *et al.*, 2011:1-27).

When a bank is compliant with King III, it is required of that bank to have good corporate governance and make annual public disclosures. Amongst the most important regulations imposed on banking institutions, is the requirement for disclosure of the bank's finances. The Board is, *inter alia*, responsible for the governance of risk and disclosure. King III, for instance, requires disclosure of the remuneration of each individual director. In addition, King III goes further, by recommending disclosure of the top three most highly paid employees (KPMG, 2012).

King III further states that responsible corporate citizenship implies an ethical relationship between the bank and the society in which it operates. Corporate governance deals with the relationships between management, shareholders, directors and other stakeholders. It includes the policies, procedures, processes and controls employed in the management of a company. It also includes the checks and balances required to reduce the potential for conflict between management and the board of directors, shareholders and other stakeholders (Correia *et al.*, 2011:1-28).

Corporate governance should ensure that the management and the board of directors act in the interest of the shareholders. The board should be independent of management and there should be adequate systems of internal controls in place. Management should ensure that the bank adheres to high ethical standards, acts within the law and complies with all applicable regulations. Management should also ensure the proper reporting of the bank's financial performance and position, information on operations and risks, to its shareholders (Correia *et al.*, 2011:1-28).

The following section will discuss the regulations applicable to the commercial banking environment. From the previous sections it is evident that guidelines and/or requirements pertaining to operational risk practices are absent in legislation pertaining to both commercial- and co-operative banks. It is, therefore, necessary to investigate the regulatory environment to determine if such guidelines and/or requirements are imposed on commercial and co-operative banks.

3.5 COMMERCIAL BANKING REGULATION

The most prominent set of banking regulations imposed on commercial banks is the Basel Accord. The essence of banking is to take on and manage risks (McCormick,

2010:388). Banks implicitly accept risk as a straightforward consequence of providing services to customers and explicitly take risk positions that offer profitable returns relative to their risk appetite. Banks have always been the most important financial intermediaries. This results from their role as providers of liquidity insurance and monitoring services as producers of information. Banks and other financial institutions have traditionally been highly regulated (Musch *et al.*, 2008:10).

Among the risks, which banks must manage, is credit risk that is fundamentally important, particularly when a bank focuses on traditional retail and corporate activities. Moreover, banks must manage market risk when it deals with securities and bonds in its balance sheet, operational risk when it relies heavily on information technology and human resources, liquidity risk when it relies on the market to secure funding of its operations, and concentration risk when it deals with large exposures. Other risks also include reputational risk, business risk and interest rate risk (Musch *et al.*, 2008:12-13).

A bank that manages these risks is required to hold capital, which is referred to as regulatory capital requirements or the capital adequacy ratio, to limit its leverage and to provide a buffer against unexpected losses. Basel I was the first step forward in capital regulation. However, this regulatory framework has proved to be too small to address all types of risks and the inherent complexities of large banks' activities (Musch *et al.*, 2008:14-15).

3.5.1 Overview of Basel II

The IT Governance Institute (2007:63) state that Basel II replaced the capital adequacy framework of 1988 (Basel I), which did not meet modern approaches to risk management, and did not consider operational risk. In 1999, the Basel Committee (Bank of International Settlements) started consultations, which resulted in a new Capital Accord, Basel II, which is better attuned to the complexities of the modern financial world. The full title of the Basel II Capital Accord is 'International Governance of Capital Measurement and Capital Standards: A Revised Framework' (Choubey *et al.*, 2005:266).

The new framework aims to provide a more comprehensive approach to measuring banking risks. The fundamental objectives of Basel II are to promote safety and

soundness of the banking system and to enhance the competitive equality of banks (Van Greunen & Bratanovic, 2009:124). The new capital adequacy regulations of Basel II represent one of the most significant regulatory changes in the financial sector in the past decades. The new regulations represent a significant step forward in financial services organisations' supervision. This will cause major changes in the organisation of internationally operating banks (IT Governance Institute, 2007:63).

Takayasu (2010:111) supported by the Oxford Business Group (2010:213), state that the specific goals of Basel II are to ensure that capital allocation is more risk sensitive, to separate operational risk from credit risk, to quantify both types of risks, and to synchronize economic and regulatory capital. The objectives of Basel II also include the assistance in creating greater stability within the global banking system, enhancing both the appreciation and improvement of the management of risks, especially credit, market, liquidity and operational risk. Another objective of Basel II is to promote the adoption of stronger risk management practices for credit- and operational risk, and to strengthen the link between banks' financial risks and their capital requirements.

The IT Governance Institute (2007:63) state that the intention of the Basel II Accord is to:

- Strengthen the soundness and stability of the international banking system and maintain the present status of capitalisation
- Address all risks more comprehensively
- Ensure that banks' capital is adequate to cover the level of risk resulting from positions taken and other business transaction
- Be equally applicable to banks with varying degrees of complexity and risk appetite.

Saita (2007:80) state that the Basel II Accord introduces three approaches for credit risk, namely the Standardised Approach (SA), the Foundation Internal Rating Based Approach (F-IRB), and the Advanced Internal Rating Based Approach (A-IRB). For operational risk, a new capital requirement has been set, which can be calculated via three approaches, each with a different degree of sophistication. These approaches

include the Basic Indicator Approach (BIA), the Standardised Approach (STA) and the Advance Measurement Approach (AMA) (Penjer, 2006:8). Chapter 4 will investigate these approaches for operational risk in greater detail.

Basel II, therefore, provides a set of regulatory standards targeting a sound capital adequacy ratio for credit, liquidity, market and operational risk promoting a safe and sound environment in the global financial market, through the introduction of a flexible and risk-sensitive capital management framework (Oxford Business Group, 2010:213).

Zhou (2011:555), states that Basel II consists of three pillars, namely “Minimum Capital Requirements”, “Supervisory Review Process” and “Market Discipline”. Gregory (2010:310) explains these pillars as:

- Pillar 1 - Minimum Capital Requirements. Banks compute regulatory capital charges according to a set of specific rules.
- Pillar 2 - Supervisory Review. Supervisors evaluate the activities and risk profiles of banks to determine whether they should hold higher levels of capital than the minimum requirements in Pillar 1.
- Pillar 3 - Market Discipline. Specification of public disclosure that banks must make, which would provide greater insight into the adequacy of a bank’s capitalisation.

The first pillar provides the methodology for calculating the minimum capital requirements for various categories of banks and banking instruments, such as mortgages, payment cards, and private and government securities. In the Basel II framework, the capital requirement for each bank asset is subject to measurement. Consequently, it was found to account for more of the risk exposures in the assets in a bank’s balance sheet than Basel I (Eubanks, 2010:1).

The importance of Basel II is emphasised when taking into account the extensive work the Basel committee has done in determining different ways to measure risk, and specifically operational risk. (BIS, 2006:144).

3.5.2 Overview of Basel III

In response to the 2007 – 2009 financial crisis, regulators have responded by proposing new regulations to be known as Basel III (Reinert, 2012:325). The reform program will lead to fundamental changes, and implement capital and liquidity reform. A key objective is to promote a less leveraged, less risky, and thus a more resilient financial system that supports strong and sustainable economic growth (Wittenbrink, 2011:1-2).

The full title of Basel III is “Strengthening the Resilience of the Banking Sector”. Basel III was first promulgated on December 17, 2009. This document was an expanded and updated version of Basel II. The purpose of Basel II and Basel III was to specify how to improve the banking sector’s ability to absorb financial and economic shock arising from stresses, whatever the source. This in turn would reduce the risk of spill-overs from the financial sector to the real economy. The central part of the Basel III regulatory reform package is to establish the minimum regulatory capital and liquidity requirements that banks must hold to absorb unexpected losses (Eubank, 2010:4).

Graham (2011:268) states that the primary objective of Basel III is to strengthen global capital standards to ensure sustainable financial stability and growth for banks worldwide. The intention of the rules set forth by Basel III is to encourage banks to engage in appropriate risk business strategies, to ensure their financial health and the ability to withstand financial shocks without government bailout support. There are 11 important provisions of Basel III, which are listed below (Rezaee, 2011:8-9):

- Basel III rules are more robust than Basel II in the sense that Basel III requires higher capital standards
- The effective implementation of Basel III is undermined by several potential pitfalls during the eight-year transition period
- The new capital conservation buffer will not be effective until January 2019
- The total capital requirement is expected to become a norm for banks to avoid curbs on their pay-outs such as dividends

- Basel III along with global liquidity standards, which will become effective from January 2015, will make banks build up reserves of cash-like assets and more capital than Basel II
- Financial institutions may reconsider financial market trading in light of the new tougher capital requirements
- Large financial institutions may build up more capital than required by Basel III in order to mitigate the negative effects of the perception of ‘too big to fall’
- Regulators may require an access countercyclical buffer
- Banks may adopt Basel III prior to the specified dates of implementation to demonstrate their commitment
- Large banks may also adopt Basel III prior to the dates specified for implementation as to rule out the perception of ‘too big to fall’
- A relatively long transition period will put banks that delay adoption at a competitive advantage over early adopters.

As can clearly be seen from the previous discussion, the commercial bank regulatory environment is very specific regarding the management of financial risks, and the calculation of minimum capital requirements. The Basel II framework provides robust guidelines on operational risk, credit risk and market risk, market discipline and bank supervision. The Basel III framework expands on the Basel II framework to include additional requirements for commercial banks, in terms of inter alia cyclicality, liquidity and higher capital standards. The regulations pertaining to co-operative banks are discussed in the next section.

3.6 CO-OPERATIVE BANKING REGULATION

As discussed in Section 3.3, the SARB and the Co-operative Bank Development Agency appoint supervisors. These supervisors must follow a coordinated approach to ensure the consistent application of the CBA. The objective of the supervisors is to gain a proper understanding of the operations of all co-operative banks. Supervisors must also apply and adapt international regulatory and supervisory standards to cater

for the unique needs of the co-operative banking sector (Co-operative Banks Development Agency, 2011:1).

The only relevant regulatory documents applicable to co-operative banks are the documents entitled ‘Co-operative Bank Act, 2007: Regulations in terms of Section 86’, and the ‘Co-operative Banks Supervisor’s Rules’. The first document, Co-operative Bank Act, 2007: Regulations in terms of Section 86, hereafter referred to as the Section 86 regulations, provides a framework for co-operative banks and prescribes the types of investments that these banks are allowed to invest in, on behalf of their members (National Treasury, 2009:1). The second document, Co-operative Banks Supervisor’s Rules, hereafter referred to as the Rules, entails a description regarding the different returns, reports or forms to be completed in order for a co-operative bank to register and conduct its business, as well as an explanation on the manner in which these forms need to be completed.

The following section provides a discussion on the Section 86 regulations with a broad overview of the regulating document. A discussion on the Rules will follow.

3.6.1 Co-operative Bank Act, 2007: Regulations in terms of Section 86

The Section 86 regulations document only applies to co-operative banks registered in terms of the Co-operative Bank Act (40 of 2007) published on 1 July 2009. The Section 86 regulations consist of 11 parts, which include:

- Part 1: Definitions and interpretations defining terms such as delinquent loan, donation, external borrowings, fixed assets, membership share, non-earning assets, part, patronage proportion, related person, section, and total assets (Government Gazette, 2009:4-5).
- Part 2: Constitution of co-operative bank detailing the procedure that a director of a co-operative bank must follow when he/she is in arrears for more than three months with any amount of debt payable to the co-operative bank (Government Gazette:2009:5).
- Part 3: Banking services provided by co-operative banks stipulating not only the banking services provided by co-operative banks, but also the conditions that a co-

operative bank must adhere to when securing external borrowings. Included are the types of assets that it may acquire or hold with money deposited with it. The provisions that should be made when a co-operative bank, other than a savings co-operative bank, grant loans, are also stipulated. Finally, it is required of a co-operative bank to annually review its lending policy and make amendments to the policy if deemed necessary (Government Gazette, 2009:5-6).

- Part 4: Prudential requirements of co-operative banks specifying the minimum capital adequacy ratio (CAR), the loan loss provision for delinquent loans, liquidity, and deposits. The main difference between the regulations on prudential requirements and the Rules on prudential requirements is that the regulations only state the minimum or maximum allowed ratio that a co-operative bank has to abide by, while the Rules assist the co-operative banks in actually calculating their current ratio (Government Gazette, 2009:7-8).
- Part 5: Large exposures of co-operative banks stating that a co-operative bank is not allowed to grant a loan to any one individual, which will exceed 10% of the total assets of the co-operative bank, or which will exceed 25% of the total capital held by the co-operative bank. If a co-operative bank chooses to grant such a large loan to an individual, the bank will need the approval of the supervisor (Government Gazette, 2009:9).
- Part 6: Administrative penalties stipulating that if a co-operative bank fails to submit a document or a report, the supervisor may impose a maximum penalty of R10 000 per day until the co-operative bank complies (Government Gazette, 2009:9).
- Part 7: Reporting where provision is made for the supervisor to submit required reports to the Minister of Finance with information regarding the performance and operations of co-operative banks (Government Gazette, 2009:9).
- Part 8: Register of co-operative bank stating that the supervisor is required to keep a register of all the co-operative banks that are registered under his/her supervision. The register must include the following (Government Gazette, 2009:9-10):

- The name and registration number of the co-operative bank
- The type of co-operative bank it is registered as
- The total number of members at the end of the co-operative bank's financial year
- The value of deposits held by the co-operative bank at the end of its financial year.
- Part 9: Code of conduct, which entails the manner in which a member of the board of directors of a co-operative bank must conduct his/her business (Government Gazette, 2009:10).
- Part 10: Appeals, regulating that an appeal can only be lodged by sending the completed prescribed form together with an amount of R500, paid to the National Treasury (Government Gazette, 2009:10)
- Part 11: General stating general aspects to be adhered to; for instance that it is a requirement of a co-operative bank to safeguard its records and information submitted to the supervisor; and that it is required of the Supervisor to establish a website which includes banking details, contact details and other essential services (Government Gazette, 2009:11).

The following section will discuss the Co-operative Banks Supervisor's Rules. This section will include a discussion on the different types of returns, reports or forms co-operative banks are required to submit. This discussion will include a more detailed discussion on prudential requirements, liquidity- and credit risk.

3.6.2 Co-operative Banks Supervisor's Rules

The regulating document entitled 'Co-operative Banks Supervisors' Rules' was published on 12 January 2010 by the supervisors. Included in this document are the different forms that co-operative banks are required to complete when applying for registration, as well as the forms required when declaring their returns. This document further explains the manner and timeframe for completion of the forms, as well as

guidelines to assist co-operative banks in completing their returns. The forms associated with registration or type reclassification are (Government Gazette, 2010:5):

- Certification of documents CBF0
- Application for registration of a primary, secondary and tertiary co-operative bank CBF1
- Statement by individuals who are holding, or are proposing to hold the office of a director, managing director or an executive officer of a co-operative bank CBF2
- Declaration in respect of the copy of the minutes of the general meeting submitted to the relevant supervisor CBF3
- Declaration by the auditor and confirmation fees payable to the auditor CBF4
- Application for the approval of the amalgamation, division of or transfer by a co-operative bank CBF5
- Certificate of registration as a co-operative bank CBF6
- Application for the conversion of a primary co-operative bank to a primary savings and loan co-operative bank CBF7

If a co-operative wants to register as a co-operative bank, or if an existing co-operative bank wants to register as a different type of co-operative bank, the above forms are to be completed. The supervisor requires the following returns or forms to be completed when a co-operative bank wishes to declare its returns (Government Gazette, 2010:5):

- Declaration in respect of returns submitted, to accompany all returns submitted by co-operative banks CBR0
- Balance sheet CBR1
- Income statement CBR2

- Report on prudential requirements CBR3
- Report on board and staff related loans CBR4
- Report on large exposures CBR5
- Liquidity risk – maturity ladder CBR6
- Credit risk CBR7

As mentioned in Section 3.4.1, the Co-operative Banks Act (40 of 2007) only applies to co-operative banks registered under the Act. The Co-operative Banks Supervisor’s Rules, therefore provides assistance for registered co-operative banks in providing them with the necessary documentation that needs to be completed, as well as instructions on the manner in which the forms are to be completed. These forms entitled CBR have more relevance to this study, and should be discussed in greater detail.

As this research focuses on investigating current methods in which co-operative banks measure and manage operational risk, only selected aspects of the Co-operative Banks Supervisor’s Rules will be discussed. From the list of forms/returns provided above, it is evident that only credit- and liquidity risk are addressed in the regulations set forth by the supervisors. Although the prudential requirements stipulated by the supervisors may be regarded as capital preservation in the event of dire market situations, and inherently may include operational risk, no provision has been made specifically for operational risk in the co-operative banks’ regulations in South Africa. In light of this, the prudential requirements, liquidity- and credit risk regulations will be further discussed in the next sections.

3.6.2.1 Prudential requirements

Included in the form entitled CBR3 - Report on prudential requirements, are the rules and dates that are of importance when completing the form. For the purpose of this discussion, the manner in which the form should be completed will not be discussed, only the relevance that the prudential requirements have on co-operative banks will form part of this discussion. As mentioned, prudential requirements can be viewed as

capital that needs to be preserved in part for operational risk; however, only specific provision has been made for liquidity- and credit risk in the regulations. The main purpose of the prudential requirements is to ensure the application of prudent risk management policies in order to minimise potential risks to co-operative banks and losses to their members (South African Reserve Bank, 2011:2).

The most important prudential requirement is capital adequacy. Capital adequacy establishes the minimum amount of capital that must be held as a solvency buffer. Other prudential requirements also place limits on risk exposures in order to reduce the potential for sudden shocks to co-operative banks (South African Reserve Bank, 2011:2). The discussion to follow will investigate the importance of capital adequacy, maximum fixed and non-earning assets, liquidity, external borrowings, grants from cash donations and loan loss provisioning.

3.6.2.1.1 Capital adequacy

The purpose of reporting the capital adequacy ratio is to enable the relevant supervisor to track the co-operative banks ability to absorb a reasonable amount of loss that may suddenly occur. It is required of a co-operative bank to ensure that capital is of a permanent nature. The capital adequacy requirement involves a definition stipulating which instruments constitute regulatory capital, and the specification of the minimum amount of the capital that the co-operative banks must hold in relation to its total assets. When calculating the capital adequacy of a co-operative bank, only the following qualifies as capital (South African Reserve Bank, 2011:3-4):

- Membership shares issued by the co-operative bank
- Indivisible reserves (at least 5% of the surplus set aside as a reserve in a reserve fund which is not divisible amongst its members)
- Non-distributable reserves created or increased by appropriations of surpluses
- Any other non-distributable funds of a permanent nature, not subject to a legal claim by any person held by a co-operative bank, approved by the relevant supervisor in writing.

It is also important to note the manner in which the Capital Adequacy Ratio (CAR) is calculated. According to the South African Reserve Bank (2011:4), the minimum CAR for co-operative banks is 6%. CAR for co-operative banks is calculated as follows (South African Reserve Bank, 2011:4):

$$\text{CAR} = \frac{\text{Total Member's Share Capital} + \text{Total Institutional Capital}}{\text{Total Assets}} \times 100$$

3.6.2.2 Maximum fixed and non-earning assets

The purpose of the prudential requirement on fixed and non-earning assets is to minimise assets that do not earn income. This would include fixed assets such as land, buildings or equipment. According to the South African Reserve Bank (2011:4), the maximum fixed and non-earning assets (FNEA) that a co-operative bank is allowed to hold are 5% of its total assets. The following formula is used when calculating the ratio (South African Reserve Bank, 2011:4):

$$\text{FNEA Ratio} = \frac{\text{Total Fixed and Non-Earning Assets}}{\text{Total Assets}} \times 100$$

3.6.2.2.1 Liquidity

The purpose of prudential requirements on liquidity is to ensure that a co-operative bank maintains a minimum level of liquid assets or demand deposits to meet day-to-day deposit withdrawals, expenses and payments. In general, a co-operative bank funds its long-term loans and investments mostly with short-term liabilities such as members' deposits, of which the majority is normally withdrawable on demand. One of the major challenges of a co-operative bank is to ensure that the level of liquidity it holds is reasonable. Liquidity requirements include (South African Reserve Bank, 2011:5):

- Minimum liquid assets as a percentage of total deposits
- Minimum deposits to be held at the Co-operative Bank Development Agency (CBDA) or higher tier co-operative bank
- Maximum loan as a percentage of assets.

Each of the abovementioned requirements will subsequently be discussed.

Minimum liquid assets as a percentage of total deposits

Liquid assets are non-earning assets and liquid investments, with a tenure not exceeding 32 days that are convertible into cash at any time without incurring any penalties. Liquid assets include (South African Reserve Bank, 2011:5-6):

- Deposits held with a commercial bank
- Deposits held with a Secondary- or Tertiary co-operative bank of which the co-operative bank is a member
- Government co-operative retail savings bonds and treasury bills issued under the Public Finance Management Act (1 of 1999)
- Participatory interests in portfolios of collective investment schemes, approved by the Registrar of Collective Schemes, and administrated by a manager registered under the Collective Investment Scheme Control Act (22 of 2002)
- Bonds and debentures determined by the supervisor issued by the national government or public entities listed under the Public Finance Management Act (1 of 1999) or the South African Reserve Bank.

According to the South African Reserve Bank (2011:6) the minimum liquid assets that a co-operative bank must hold are 10% of its total deposits. In order to calculate the ratio the following formula must be used:

$$\text{Ratio} = \frac{\text{Total Liquid Investments} + \text{Total Liquid Assets}}{\text{Total Deposits}} \times 100$$

Minimum deposits to be held at the Co-operative Bank Development Agency (CBDA) or higher tier co-operative bank

In addition to the requirements above, it is required of a co-operative bank to hold additional funds at the Co-operative Banks Development Agency or at a higher tier co-operative bank. These funds are immediately available to cater for extraordinary liquidity needs. The minimum deposits to be held at the Co-operative Bank

Development Agency (CBDA) or higher tier co-operative bank must be at least 2.5% of total deposits. In order to calculate the ratio the following formula must be used (South African Reserve Bank, 2011:7):

$$\text{Ratio} = \frac{\text{Deposits held with CBDA} + \text{Second Tier Co-operative Banks} + \text{Third Tier Co-operative Banks}}{\text{Total Deposits}} \times 100$$

Maximum loan as a percentage of assets

The loans-to-assets ratio measures the loans outstanding as a percentage of total assets. A high ratio indicates that a co-operative bank has extended a large portion of available funds as loans. However, this is only applicable to savings and loans co-operative banks. The maximum percentage that a savings and loans co-operative bank may extend as loans to members is 80%. The formula used for calculating this ratio is as follows (South African Reserve Bank, 2011:7):

$$\text{Ratio} = \frac{\text{Total Loans}}{\text{Total Assets}} \times 100$$

3.6.2.2 External borrowings

The purpose of external borrowings, as a prudential requirement, is to limit the extent of reliance a co-operative bank may have on external funding and to promote a savings culture. The sustainability of co-operative banks is dependent on their ability to grow organically through the principle of self-help. Co-operative banks should rely primarily on members' deposits as a cheaper means of funding and investments (South African Reserve Bank, 2011:7).

External borrowing is defined in the regulations to, “include any monies secured through a loan, excluding members' deposits, for which a co-operative bank has entered into an agreement and must repay the funds with or without interest at a later date, including a loan from the Co-operative Banks Development Agency, a higher tier co-operative bank and any member” (South African Reserve Bank, 2011:8).

The maximum percentage of total assets that a co-operative bank may secure as external borrowings is 15%. The formula used to calculate the ratio for external borrowings is (South African Reserve Bank, 2011:8):

$$\text{Ratio} = \frac{\text{Sum of External Borrowings}}{\text{Total Assets}} \times 100$$

3.6.2.2.3 Grants from cash donations

The purpose of this requirement is to measure the extent of loans granted from cash donations received, in relation to total deposits. This limit ensures that a savings and loan co-operative bank primarily relies on deposits from its members for non-lending purposes and is aimed at stimulating a savings culture to support sustainable organic growth (South African Reserve Bank, 2011:8).

For a co-operative bank that provides savings and loan services, the loans that may be granted to members that are sourced from cash donations may not exceed 15% of their total deposits. The ratio is calculated as follows (South African Reserve Bank, 2011:8-9):

$$\text{Ratio} = \frac{\text{Loans Granted from Cash Donations}}{\text{Total Deposits}} \times 100$$

3.6.2.2.4 Loan loss provisioning

The purpose of loan loss provisions is to cater for potential future losses. Since loan loss provisioning is treated as an expense, it safeguards a co-operative bank's solvency and capitalisation if, and when, loan losses occur. Co-operative banks must make loan loss provision in accordance with the regulations in respect of all loans and delinquent loans on their books (South African Reserve Bank, 2011:9).

A delinquent loan is defined as any loan in respect of which a payment is due and payment has not been received in accordance with the terms of the contractual agreement. However, what separates a delinquent loan from credit risk is the fact that a delinquent loan must either be payable monthly and no payment has been received

within 31 days, or must be payable daily or weekly and payment was late by one day (Government Gazette, 2009:4).

The total actual loan loss is calculated by means of adding the following categories (South African Reserve Bank, 2011:9-10):

- Loan loss provision on all loans (min 2%)
- Delinquent loans between one to six months (min 35%)
- Delinquent loans between six to 12 months (min 50%)
- Delinquent loans of 12 months and over (min 100%).

Each of these categories needs to be calculated separately and will subsequently be discussed. The actual percentage of loan loss provision on all loans is calculated as follows (South African Reserve Bank, 2011:10):

$$\text{Loan Loss provisions on all Loans} = \frac{\text{Actual Loan Loss Provision on all Loan}}{\text{Total loans}} \times 100$$

The actual percentage of calculating loan loss provision on delinquent loans between one to six months is calculated as follows:

$$\text{Delinquent (1-6)} = \frac{\text{Actual Loan Loss Provision on Delinquent Loans (1-6)}}{\text{Total Amount of Delinquent Loans (1-6)}} \times 100$$

The actual percentage for calculating loan loss provision on delinquent loans between six to 12 months is calculated as follows:

$$\text{Delinquent (6-12)} = \frac{\text{Actual Loan Loss Provision on Delinquent Loans (1-12)}}{\text{Total Amount of Delinquent Loans (1-6)}} \times 100$$

The actual percentage for calculating loan loss provision on delinquent loans 12 months and over is calculated as follows:

$$\text{Delinquent (>12)} = \frac{\text{Actual Loan Loss Provision on Delinquent Loans (>12)}}{\text{Total Amount of Delinquent Loans (>12)}} \times 100$$

Adding all these loans provisions constitutes the amount of the total provision for actual loan loss that a co-operative bank has to provide for.

3.6.2.3 Liquidity risk

The purpose of completing the CBR6 form is to promote active asset-liability management, provide the supervisors with an indication of mismatch positions that may occur, and the plans implemented by management to fund such mismatch positions (South African Reserve Bank, 2011:2). Asset-liability management by co-operative banks is necessary in order to measure and control three levels of risk, which include (South African Reserve Bank, 2011:2):

- Interest rate risk
- Credit risk
- Liquidity risk.

Pro-active management of a co-operative bank's balance sheet is necessary to maintain the mix of loans and deposits consistent with its goals for long-term growth and risk management. Deposits often have shorter maturities than loans resulting in a mismatch between loans and deposits (South African Reserve Bank, 2011:2).

3.6.2.4 Credit risk

The purpose of completing the CBR7 form is to assist the respective supervisors to determine the basic level of discipline maintained by co-operative banks in their credit risk management processes, and to ensure that credit risk exposure is contained within acceptable parameters (South African Reserve Bank, 2011:2).

Credit risk is defined as the potential that a co-operative bank's borrower will fail to meet payment obligations in accordance with the terms agreed with the co-operative bank. Management of co-operative banks is not only expected to manage risk in respect of each individual member, but also to manage the credit risk inherent in the entire portfolio, given that loans granted to members are the greatest source of credit risk (South African Reserve Bank, 2011:2).

3.7 CONCLUSION

This chapter investigated the legislative and regulatory environments applicable to commercial and co-operative banks with the aim not only to determine if similar legislation and regulations apply to both commercial banks and co-operative banks, but also if legislation and regulations applicable to co-operative banks do further emphasise the unique nature of co-operative banks as identified in Chapter 2.

Sections 3.2 and 3.3 respectively investigated the primary legislation relevant to the commercial and co-operative banking environments. Due to the responsibilities placed on boards, specifically regarding risk management, and to determine whether any guidelines or requirements are imposed through the King III corporate governance risk proposals on operational risk practices in co-operative banks, the King III proposals were discussed in Section 3.4. From the investigation, it is evident that guidelines and/or requirements pertaining to operational risk practices are absent in legislation pertaining to both commercial and co-operative banks.

Sections 3.5 and 3.6 respectively investigated the regulatory environments to determine if the abovementioned guidelines and/or requirements are imposed on commercial and co-operative banks. It is evident in Section 3.5 that the commercial bank regulatory environment is very specific regarding the management of financial risks, and the calculation of minimum capital requirements. The Basel II framework provides robust guidelines on operational risk, credit risk and market risk, market discipline and bank supervision, while the Basel III framework expands on the Basel II framework to include additional requirements in terms of, *inter alia*, cyclical, liquidity and higher capital standards. With regard to the co-operative bank regulatory environment discussed in Section 3.6, it is evident that although the Rules make provision for certain prudential requirements, liquidity- and credit risk, there is no specific provision being made for operational risk. Furthermore, the Basel II requirements are not applicable to co-operative banks as it only applies to commercial banks. When comparing the co-operative banking regulations to the commercial banking regulations, it is evident that the commercial banking regulations are more advanced and sophisticated than the co-operative banking regulations.

Chapters 2 and 3 addressed the co-operative bank in order to highlight its uniqueness in nature and characteristics. In Chapter 4, the research focus is directed towards operational risk, and specifically towards defining operational risk, the measurement and management of operational risk, and current operational risk practices.

CHAPTER 4

OPERATIONAL RISK

“The biggest thing has been the struggle to make sure operational risk does not get bedded into separate silos of its own. Operational risk is innipresent; even the administration of market and credit risk policy is all about operational risk” (Pandey, 2005).

4.1 INTRODUCTION

Chapter 3 focussed on the unique nature of co-operative banks, and emphasised the numerous legislations and regulations to which these banks must adhere. In addition, different legislation and regulations applicable to commercial banks were highlighted, especially Basel II, which will form the basis for this chapter. It is however, not required of South African co-operative banks to adhere to Basel II. Chapter 3 emphasised that there is a vast difference between co-operative banks and commercial banks. A very important aspect highlighted in Chapter 3 was that as soon as co-operative banks reach deposits of R20 million or more, it is a legal requirement for such a bank to register with the South African Reserve Bank. As soon as a co-operative bank registers with the South African Reserve Bank, the Banks Act (94 of 1990) covers it. Both of these requirements are also applicable to commercial banks, which mean that as co-operative banks become more sophisticated, it is implied that they need to be judged similar to commercial banks. South African co-operative banks need to consider implementing one of the methods discussed in Chapter 4 for measuring operational risk, as proposed by the Basel Committee on Banking Supervision. It is important to note that if operational risk cannot be measured, it cannot be managed.

Before any implementation of measurement technique, an understanding of the term 'operational risk' must be obtained. This chapter aims to provide a map of operational risk, which will include a discussion of the different components of operational risk. The different levels of operational risk, as well as the different methods for calculating operational risk as suggested by Basel II, will also be discussed.

As mentioned in Chapter 3, there are three different methods that can be used when calculating operational risk. This study focuses on the Basic Indicator Approach, as the successful implementation of this approach (or a similar approach) will significantly improve the current status of operational risk measurement and management in South African co-operative banks.

Chapter 4 provides a discussion on the different terminology used throughout this chapter. Included in this discussion will be terms such as ‘risk’, ‘operational risk’, ‘operational risk management’, ‘operational risk loss’, and ‘operational risk loss event’. Chapter 4 continues with a debate regarding the different levels of operational risk (people-, process-, technical-, and technological risk), current operational risk practices evident in the global arena, as well as a discussion on the classification of operational risk and proposed practices for operational risk management. The chapter concludes with information on the Basel Committee and the different methods used to calculate operational risk according to Basel II.

4.2 TERMINOLOGY DEFINITION

This section defines concepts and terms that are of utmost importance to this study. The terms defined include ‘risk’, ‘operational risk’, ‘operational risk management’, ‘operational risk loss’, and ‘operational risk loss event’. These terms are considered important as they closely relate to the objective of this study, namely to measure and manage operational risk in co-operative banks.

4.2.1 Defining the term ‘risk’

Rolstadas *et al.* (2011:25) state that the term ‘risk’ is derived from the Latin word *risicare*, which means to dare. There have been proposal of many definitions of risk over the years, of which the following are probably the most widely used:

Risk = Consequence x Probability or Likelihood of Occurrence

In terms of the above, the outcome and its impact can be either positive or negative. When the outcome is positive it is referred to as an opportunity, and when the outcome is negative it is referred to as ‘risk’. Many practitioners refer to these outcomes as ‘upside’ or ‘downside’ risk. In essence, once an outcome is positive it is

no longer considered a risk, but rather an opportunity (Rolstadas *et al.*, 2011:25). The views of different authors are quoted below in terms of their respective definitions of risk. The fact that different meanings are assigned to the term 'risk', highlights the importance of having an understandable definition for risk.

Webb (2003:17) states that risk can be defined as, "The objectified uncertainty regarding the occurrence of an undesirable event." Four elements inherent in this definition of risk can be identified, namely:

- A risk event is 'objectified', which means that risk is a reality
- Uncertainty about the risk event exists
- There is a distinct possibility that the risk event may occur
- The outcome may be undesirable.

Hopkin (2010:12) however, defines risk as, "An event with the ability to impact the mission, strategy, projects, routine operations, objectives, core processes, key dependencies and / or the delivery of stakeholder expectations." Interesting to note is that Hopkin, in defining risk, focuses on an impacting event without making a distinction on whether the said event has a positive or negative outcome. The assumption rather, is that the event described would have negative consequences.

In this regard, Schwepcke (2004:9) makes a distinction as he states that risk can be understood to, "Represent uncertainty about the occurrence of situations. It is immaterial whether the situations that could possibly occur are perceived to be positive or negative."

Westland (2007:79) defines risk as, "An event that is likely to adversely affect the ability of the project to achieve the defined objectives." In this context, Westland links the event having an adverse effect to predefined objectives, thereby highlighting the concept that risk can be seen as the deviation of the expected objectives from the actual outcome.

Bashkin (2006:4) adds to this when he defines risk as, "The combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the

consequences of the occurrence”, adding a concept of probability or frequency to the definition of risk.

A more comprehensive and appropriate definition of risk is provided by Valsamakis *et al.* (2005:27). They define risk as the variation of the actual outcome from the expected outcome. Risk therefore implies the presence of uncertainty. If this definition is accepted then the standard deviation is an appropriate measure of risk.

It is evident from the above mentioned that there is no single definition for risk. It is also evident that, although many individuals may interpret the finer detail of the term differently, all agree on the fact that risk is perceived as something negative. As soon as risk becomes positive, it is no longer seen as a risk but as an opportunity.

4.2.2 Defining the term ‘operational risk’

This section defines the term ‘operational risk’, and includes various definitions used by different institutions and authors. Specific attention is given to a definition for operational risk proposed by the British Bankers Association, which was adopted by the Bank of International Settlements in January 2001. The industry however, responded with criticism towards the definition, and it was later refined.

Although there is one formal definition of operational risk stated by the Bank of International Settlements, proposed for use by all international active banks, large banks and financial institutions often prefer to use their own definition. A few of these examples are presented. The first is that preferred by the Deutsche Bank (2005) for operational risk that reads, “Potential for incurring losses in relation to employees, contractual specifications and documentation, technology, infrastructure failure and disasters, external influences and customer relationships.”

Another definition, used by the Bank of Tokyo-Mitsubishi (2005:125), states that operational risk is, “The risk of incurring losses that might be caused by negligence of proper operational processing, or by incidents of misconduct by either officers or staffs.”

The US Securities and Exchange Commission (2003) uses a broader definition of operational risk which reads, “The risk of loss due to the breakdown of controls

within the firm including, but not limited to, unidentified limited excess, unauthorised trading, fraud in trading or in back office functions, inexperienced personnel, and unstable and easily accessed computer systems.”

From the above, it is evident that there are many acceptable definitions for operational risk, all contextually varying in depth and width, depending on the institution’s objective. These different definitions of operational risk are directed towards a specific purpose and core business operations of the individual company concerned. Interesting to note is that similarity between these definitions is evident. In addition to the above definitions, many authors also attempt to define operational risk.

The first definition, as stated by Schwartz and Smith (1997:322), defines operational risk as, “Operational risk is the risk of loss arising from human error, management failure and fraud; or from shortcomings in systems or controls.”

Davies *et al.* (1998:64) elaborate on this definition and state that, “Operational risk is the risk that deficiencies in information systems or internal control may result in unexpected losses. The risk is associated with human error, systems failures and inadequate procedures and controls.”

Lam (1999:82) provides a narrower definition when he defines operational risk as, “Operational risk involves mainly back-office operational such as transactions processing, fraud pricing, cash and securities movement, and systems.”

Bessis (20:20) on the other hand, states that, “Operational risks are those of malfunctions of the information system, reporting systems, internal risk-monitoring and internal procedures designed to take timely corrective actions, or the compliance with internal risk policy rules.”

As mentioned previously, the Bank of International Settlements (2001b:2) proposed a definition for operational risk intended for use by internationally active banks. This definition is not only very elaborate, but incorporates all aspects of the above definitions as it defines operational risk as, “The risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events.”

It is evident from the above that many definitions for operational risk are acceptable. Although the Basel Committee provided an acceptable definition of operational risk, numerous other definitions are also accepted. A company may define operational risk according to the specific needs of that particular company. An individual may define operational risk according to his/her own view of operational risk. In general, it is noted that there are many similarities between the definitions.

4.2.3 Defining the term ‘management’

According to Stojkovic (2012:6), management is defined as, “The process by which the elements of a group are integrated, coordinated, and/or utilised so as to effectively and efficiently achieve organisational objectives.”

The above definition highlights activities of people, their coordination and integration as a process, to achieve objectives in an effective and efficient manner. Pride (2012:168) further elaborates this context by incorporating the concept of resources when he states, “Management is the process of coordinating people and other resources to achieve the goals of an organisation.”

It is therefore, a function involving a process not only concerned with the activities of people, but also including resources as important dimensions such as entrepreneurship, labour, land and technology – any resource used within the company to provide goods and services and achieve the company’s objectives. Another definition is provided by Protherough and Pick (2002:78) broadening the definition to not only refer to people as individuals, but to include the role people play in their social interaction with one another in an environment where legitimate authority is needed. They state that, “Management is the activities of social actors and their interventions into organised human processes, particularly actors with discrete formal statuses that provide the legitimate authority to direct and coordinate the behaviour of other social actors.”

From the above mentioned, it is evident that the meaning of management comes down to the process or activities of certain individuals who utilises resources in order to achieve the objectives of an organisation. It therefore, includes certain managerial activities associated with planning, commanding, coordinating, organising and control.

4.2.4 Defining the term ‘operational risk management’

In light of the definition of operational risk discussed in Section 4.2.2, it is evident that operational risk covers a wide variety of events that could negatively impact a financial institution. It is, therefore, imperative that operational risk be managed effectively and efficiently. Given the scope and importance of operational risk, managers should establish a systematic process to measure and manage operational risk (Lam, 2003:215). Schevchenko (2011:1) states that the concept of operational risk management is far from new to the banking industry.

Since the beginning of banking, operational risks such as processing errors and external and internal fraud needed management. These risks have traditionally been managed using insurance protection and audit. Factors such as globalisation, complex financial products and changes in information technology, combined with a growing number of high-profile operational loss events worldwide, have increased the importance of operational risk management in the banking industry, resulting in a renewed and formalised focus on the management of operational risks. It is therefore, required of financial institutions to have sufficient capital reserves at any given time, to serve as a buffer for operational and other losses. This is a key requirement for the regulatory framework set out for banks by Basel II, discussed in greater detail in Section 4.7.2.2. It is therefore, required of banks to measure and manage the operational risk present in each prospective bank (Hopkin, 2010:205).

The term ‘operational risk management’ can, therefore, be defined as the managerial activities (discussed in Section 4.2.3) to effectively and efficiently plan, organise, command, coordinate and control all resources related to the operational risk environment, including the specific risks resulting from failed internal processes, people, systems and external events (Section 4.2.2), to minimise losses and meet the objectives of the organisation. From this definition, two additional aspects need attention, namely operational risk losses and operational risk events. The following sections define the terms ‘operational risk loss’ and ‘operational risk event’.

4.2.5 Defining the term ‘operational risk loss’

Different authors define the term ‘operational risk loss’. In order to understand the meaning, the following definitions of the term are highlighted. Ghosh (2012:438)

defines potential operational risk loss as, “The aggregate of expected- and unexpected loss.” Yu (2005:12) elaborates on this definition, stating that it is, "The loss which has been created by operational risk events.” Vossen (2009:7) however, provides a broader definition as he states that, “An operational risk loss is a negative impact on the earnings of equity value of the firm due to an operational risk event.”

From the above mentioned definitions, it is possible to provide one single definition for operational risk loss, which can be stated as the expected or unexpected negative impact on the earnings of equity value due to an operational risk event occurring. However, the operational risk event needs further exploration to understand what such an event entails.

4.2.6 Defining the term ‘operational risk loss event’

An operational risk loss event is an event or an occurrence that can cause damage to a bank if it prevents a bank from carrying out its business (Kenett & Raanan, 2011). They further state that operational loss events include:

- Write-downs which is a direct loss in assets due to theft, fraud, unauthorised activity, market- and credit losses or damage to assets.
- Loss of recourse referring to payments or disbursements made to incorrect parties and not recovered.
- Payments to clients of principle and/or interest by way of restitution, or the cost of any other compensation paid to clients.
- Legal liability including judgements, settlements and any other legal cost.
- Regulatory and compliance events, which may include fines, taxation penalties or the direct cost of any other penalties such as licence revocation.
- Loss or damage to assets, which includes a direct reduction in the value of physical assets.

Section 4.2 provided an explanation of different terms relating to operational risk management. The next section contains a discussion on the different levels of

operational risk. These levels include people-, process-, technical-, and technological risk.

4.3 LEVELS OF OPERATIONAL RISK

According to Katyal (2009:299), it is relatively easy for a financial institution to set and observe specific, measurable levels for market- and credit risk. With regard to operational risk however, it is more difficult to identify or assess levels of operational risk and its many sources. Historically, banks have accepted operational risk as an unavoidable cost of doing business (Katyal, 2009:299). In Section 4.2.2, it was stated that operational risk refers to the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. This definition implies that certain levels of operational risk are prevalent. Sections 4.3.1 to 4.3.4 provide a discussion on the different levels of operational risk, with specific focus on people-, process-, technical-, and technological risk.

4.3.1 People risk

People risk typically results from staff constraints, dishonesty, incompetence or a corporate culture that does not cultivate risk awareness. Staff constraints occur when companies cannot fill critical open positions because of labour shortages, or because compensation and other incentives are not attractive to new candidates (Lam, 2003:212).

In a situation where employees lack the necessary skills and knowledge in order to perform their jobs correctly, incompetence becomes a major issue. When a situation arises where employees have a lack of professional training and/or development, it would further compound human errors (Lam, 2003:212).

Dishonesty within a company may lead to fraudulent activities. In addition, corporate cultures that do not actively incorporate risk awareness or encourage profits, without regard for the methods used to make them, can also result in adverse employment behaviour (Lam, 2003:212)

4.3.2 Process risk

Bessis (2010:36) states that process risk includes:

- Inadequate procedures and controls for reporting, monitoring and decision-making
- Inadequate procedures on processing information, such as errors in booking transactions and failure to scrutinise legal documentation
- Organisational deficiencies
- Risk surveillance and undetected access limits
- Management deficiencies in risk monitoring, such as not providing the correct incentives to report risks, or not abiding by the procedures and policies in force
- Errors in the recoding process of transactions
- Technical deficiencies of the information systems or of risk measures.

4.3.3 Technical risk

Technical risk relates to model errors, implementation and the absence of adequate tools for measuring risk (Bessis, 2002:21). As already mentioned, risk is defined as the probability that a project or program will experience an undesired event, which will negatively affect the outcome. Technical errors may result in the undesired event. Technical risk is an organised, systematic, risk-informed, decision-making discipline that identifies, plans, and manages risks to increase the likelihood of achieving predetermined goals (Kapurch, 2007:139).

4.3.4 Technology risk

Pathak (2011:445) states that technology risk is especially prone to technological changes, particularly in the fields of computers and communication. An example of technological risk is the risk that a bank may not be able to adapt as rapidly to new emerging technology, as its competitors (Hawawini & Viallet, 2011:459). Technological risk is also very often associated with the desire to protect systems, as well as the data it contains (King, 2003:91).

Technology risk or systems risk may also include (Young, 2006:7):

- System failure

- System integrity
- Outdated systems
- System suitability
- System support.

Furthermore, Lore and Borodovskry (2000:396) argue that technology risk can arise from maintenance contracts for existing information technology infrastructure and application software, through to complete outsourcing of projects of the whole information infrastructure service.

Firms often make use of old and new systems at the same time and this often results in a problem because they need both the old and new technologies in order for the business to run smoothly. In addition, the firm will be exposed to general technology risk across all business areas. It is the obligation of the operational risk manager to assess general technology risks by reviewing a firm's compliance with the typical technology controls. Such controls need to be designed to protect the information technology facility against human error, data theft and voice equipment failure, in order to ensure that exposure against fire, heat, water, smoke and corrosive fumes are minimised (Lore & Baradovsky, 2000:396).

In light of the above, it is evident that operational risk covers a vast majority of incidents that can take place, which can result in a loss. People, processes, technology, or any technical problem a company faces, may result in major losses. Therefore, it is important to manage these risks properly, which is not always easy.

The following section addresses the classification of operational risk. Topics discussed are internal and external operational risk, expected and unexpected operational risk, operational risk types, and operational loss severity and frequency.

4.4 CLASSIFICATION OF 'OPERATIONAL RISK'

Operational risk can be classified according to internal and external sources; the expectedness of occurrence; or the risk type, event type and loss type. Section 4.4 discusses the different classifications of operational risk.

4.4.1 Internal vs. external

Hull (2012:431) states that an increase in the operating costs of a bank or a decrease in its revenue, are a result of some operational risks. Operational losses can be a result of internal- as well as external sources. When an internal operational risk presents itself, it is usually due to human errors, internal fraud, unauthorised trading, injuries, and business delays due to computer failures or telecommunication problems (Chernobai *et al.*, 2007:19).

External sources may include human-made incidents such as external fraud, theft, computer hacking, terrorist activities, and natural disasters such as damage to physical assets due to hurricanes, floods or fires (Chernobai *et al.*, 2007:19).

As mentioned, numerous internal operational losses present themselves. However, it is possible to prevent many of these internal operational failures with appropriate internal management practices. External operational losses are, however, very difficult to prevent, but by designing insurance or other hedging strategies, these losses can be reduced or possibly be eliminated (Chernobai *et al.*, 2007:19).

Internal operational risk can be viewed as the risk over which a bank has some control. A bank is in charge of deciding whom it wants to employ (skills and experience), what computer systems it wants to develop and what controls should be in place. Operational risk can also arise from inadequate controls and the risks of employee fraud (Hull, 2012:430). However, some companies choose to include only internal risks as part of their definition of operational risk; banks however choose to include the impact of external events such as natural disasters, political-, and regulatory risk as well (Hull, 2012:430).

4.4.2 Expected vs. unexpected

Regardless of the type of risk, some risks will always be expected and some unexpected. The same can be said about operational losses. Some expected operational losses could include events that occur on a regular basis such as employee errors or minor credit card fraud (Chernobai *et al.*, 2007:22).

Chernobai *et al.* (2007:22) also state that unexpected operational losses are more difficult to foresee and can include terrorist attacks, natural disasters, and large-scale internal fraud. An unexpected operational loss can also arise due to large-scale mergers (Utz, 2006:124).

4.4.3 Operational risk type, event type and loss type

There is often confusion in the area of operational risk due to the fact that, sometimes there is no distinction between risk type, event type, and loss type. It is of utmost importance that banks separately record event types and loss types. Identifying the risk type is equally important.

The distinction between event type, loss type and risk type is comparable to cause and effect, as highlighted by Chernobai *et al* (2007:22):

- Hazard constitutes one or more factors that increase the probability of occurrence of an event
- Event is a single incident that leads directly to one or more effects
- Loss constitutes the amount of financial damage resulting from an event.

From the above, it is evident that a hazard potentially leads to events, and events are the cause of loss. Therefore, an event is the effect of a hazard, while loss is the effect of an event. In order to create a proper understanding for operational risk it is important to document accurately operational risk by the type of hazard, the event and the resulting loss (Chernobai *et al.* 2007:22).

The process of operational loss occurrence is set out in Table 4.1 below.

Table 4.1: Operational loss occurrence process

Hazard	Event	Loss
Inadequate employee management	Internal fraud	Write-downs
Obsolete computer systems	External fraud	Loss of recourse
Inexperienced personnel	Diversity/discriminating events	Restitution
Large transaction volumes	Improper business and market practices	Legal liability
Diversity and cultural differences	Failed reporting	Regulatory taxation
Unfavourable climate conditions	System failure	Loss/damage to physical assets
	Natural disasters	

Source: (Chernobai *et al.*, 2007:23).

Table 4.2 below contains the seven event-type groups classified by the Basel II Capital Accord.

Table 4.2: Detailed loss event type classification

Event-type category	Definition	Categories	Activity example
Internal fraud	Loss due to an act intended to defraud with one internal party	Unauthorised activity	Unreported transactions
		Theft and fraud	Fraud/robbery
External fraud	Loss due to an act intended to defraud by a third party	Theft and fraud	Forgery/robbery
		Systems security	Hacking damage

Event-type category	Definition	Categories	Activity example
Employment practices and workplace safety	Loss arising from acts inconsistent with employment, health or safety laws	Employee relations	Termination issues
		Safe environment	Health/safety rules
		Diversity and discrimination	All discrimination types
Clients, products and business practices	Losses arising from unintended failure to meet a professional obligation	Sustainability and fiduciary	Breach of privacy
		Improper business and market practice	Antitrust improper trade
		Product flaws	Product defects
		Selection, sponsorship and exposure	Exceeding client exposure limits
		Advisory activities	Disputes over advisory activity performance
Damage to physical assets	Losses arising from damage to physical assets due to natural- or other disasters	Disasters and other events	Natural disasters Terrorism/vandalism
Business disruption and system failures	Losses arising from disruption or system failures	Systems	Hardware Software Telecommunications
Execution, delivery and process management	Losses from failed transaction processing in relation to trade counterparties	Transaction capture, execution and maintenance	Miscommunication Missed deadline Delivery failure Accounting error

Event-type category	Definition	Categories	Activity example
		Monitoring and reporting	Failed reporting obligation
		Customer intake and documentation	Client permissions
		Customer account management	Unapproved access given to accounts
		Trade counterparties	Non-client Counterparty Misperformance
		Vendors and suppliers	Vendor disputes

Source: (BIS, 2001b:22-23).

4.4.4 Operational loss severity and frequency

Chernobai *et al.* (2007:23) explain that expected losses generally refer to the losses of low severity or magnitude and high frequency or occurrence. Operational risk losses can be broadly classified into four main groups:

- Low frequency / low severity
- Low frequency / high severity
- High frequency / low severity
- High frequency / high severity

According to Chorafas (2004:30), senior management must establish procedures necessary to measure, monitor, and control operational risk, including the event's probability and the event's potential size. According to Chernobai *et al.* (2007:25), it has been suggested that the category of low frequency / low severity and high

frequency / high severity are not feasible. If this is true, then only the remaining categories, namely low frequency / high severity and high frequency / low severity, are of importance and are the only two categories banks should be focussing on.

The loss category of high frequency / low severity is seen as relatively unimportant because these losses can often be prevented. In addition is the fact that these losses do not pose that great a threat. The suggestion by Chernobai *et al.* (2007:25-26) is that banks should rather invest their time and energy into operational losses that fall in the category of low frequency / high severity. These types of operational losses pose the greatest financial threat to banks, and could lead to potential bankruptcy. Figure 4.2 depicts an example of the four categories or groups into which operational losses may fall.

Figure 4.1: Classification of operational loss and severity

Low frequency / low severity	High frequency / low severity
Low frequency / high severity	High frequency / high severity

Source: (Chernobai *et al.*, 2007:25)

From the above, it is evident that there are numerous classifications for operational risk. It is important to note that the expectation is for some operational risks to occur, and provision for the resulting losses can be made accordingly. The most dangerous operational risks are the unexpected operational losses that cause major damage to the company. Other equally dangerous types of operational risk are those that occur on a regular basis, which can cause major damage. This type of risk needs a high degree of attention and focus.

The next section discusses the proposed practices for operational risk management. Four identified key elements of operational risk will form the core of the discussion regarding the proposed practices of operational risk. These four key elements include the development of an appropriate risk management environment; risk management identification, assessment, monitoring and control; the role of supervisors; and the role of disclosure.

4.5 PROPOSED PRACTICES FOR OPERATIONAL RISK MANAGEMENT

4.5.1 Four key elements of operational risk

In the process of developing sound practices, the Basel Committee has decided that rigour, similar to that applied to credit-, interest-rate- and liquidity risk, should be applied to operational risk. However, it is apparent that operational risk differs from other banking risks because it is part of the natural course of corporate activity and it affects the risk management process. If operational risk is mismanaged, it could lead to significant losses (BIS, 2003:3).

In this section, ‘management’ of operational risk is seen as the identification, assessment, monitoring and control of risk. The Basel Committee has identified four key elements in operational risk management, structured around a number of principles, including (BIS, 2003:3-4):

- Development of an appropriate risk management environment
- Risk management: Identification, assessment, monitoring and control
- Role of supervisors
- Role of disclosure.

Subsequently, each of these elements will be discussed, highlighting 10 principles that represent what is expected of management in order to be able to achieve each element.

4.5.1.1 Development of an appropriate risk management environment

The Basel Committee state the following principles for senior management, which will enable them to develop an appropriate risk management environment (BIS, 2003:4).

Principle 1: The board of directors should be aware of the major aspects of the bank’s operational risks as a distinct risk category that should be managed. It should approve and periodically review the bank’s operational risk management framework. The

framework should provide a firm-wide definition of operational risk, and lay down the principles of how to identify, assess, monitor and control operational risk.

Principle 2: The board of directors should ensure that the bank's operational risk management framework is subject to an effective and comprehensive internal audit by operationally independent, appropriately trained and competent staff. The internal audit function should not be directly responsible for operational risk management.

Principle 3: Senior management should have responsibility for implementing the operational risk management framework approved by the board of directors. The framework should be consistently implemented throughout the whole banking organisation, and all levels of staff should understand their responsibilities with respect to operational risk management. Senior management should also take responsibility for developing policies, processes and procedures for managing operational risk in all of the bank's material products, activities, processes and systems.

In light of the above stated principles, in some cases it is necessary to persuade senior management to support operational risk objectives. Ensuring senior management's commitment to operational risk management is not simple. According to Schwartz (1997:50), the following guidelines can assist in easing the commitment of management:

- Information: Information needs to be correct and accurate in order to create a meaningful picture of operational risk
- Knowledge: Staff needs to be educated on the major issues as well as the current methods being used, in order to limit exposure to operational risk
- Communication: Management must be provided with clear, concise reports on a regular basis
- Participation: Provide value-added support for the business side in new undertakings, as well as acting as the control mechanism
- Accountability: Management needs to take responsibility for errors, as well as the well-being of the institution.

These guidelines will not guarantee management's commitment to operational risk; however, these guidelines will serve to assist in the development of an appropriate risk management environment (Schwartz, 1997:50).

The roles of the board of directors and senior management are important in developing an appropriate risk management environment. The board of directors should be aware of the major aspects of operational risk and the fact that operational risk requires distinct treatment alongside other risks. The board of directors should review the operational risk management framework on a regular basis and approve the management structure to implement the framework (Sharma, 2008:178).

4.5.1.2 Risk management: Identification, assessment, monitoring and control / mitigation

Principle 4: Banks should identify and assess the operational risk inherent in all material products, activities, processes and systems. Banks should also ensure that before undertaking or introducing new products, activities, processes and systems, the operational risk inherent in them is subject to adequate assessment procedures.

Principle 5: Banks should implement a process for regular monitoring of operational risk profiles and material exposures to losses. There should be regular reporting of pertinent information to senior management and the board of directors that supports the proactive management of operational risk.

Principle 6: Banks should have policies, processes and procedures to control material operational risks. Banks should periodically review their risk limitation and control strategies, and should adjust their operational risk profile accordingly, using appropriate strategies, in the light of their overall risk appetite and profile.

Principle 7: Banks should have contingency and business continuity plans in place to ensure their ability to operate on an ongoing basis and limit losses in the event of severe business disruption.

Kouvelis *et al.* (2012:540) argue that the goal of risk assessment is to understand the risk environment, to identify and quantify the relationship between risk factors, and to

perform risk analysis to identify areas of high risk. The results can be utilised to develop and prioritise risk mitigation techniques.

Kouvelis *et al.* (2012:540) continue by stating that the main goal of risk mitigation is to reduce the impact a certain risk would have on a bank, with the help of certain strategies. Some of the processes used by institutions to identify risks according to Loader (2002:74) include:

- Risk assessment
- Risk mapping
- Key risk indicators
- Thresholds/limits
- Scorecards
- Control activities.

The main goal of risk monitoring and control is to continuously monitor and evaluate strategies, mitigation techniques, and response options to adapt to the dynamic business environment. It consists of monitoring key risk indicators, developing action plans to address the gaps on an ongoing basis, and providing feedback on how well the risks are mitigated (Kouvelis *et al.*, 2012:540).

4.5.1.3 Role of supervisors

Principle 8: Banking supervisors should require that all banks, regardless of size, have an effective framework in place to identify, assess, monitor and control material operational risks, as part of an overall approach to risk management.

Principle 9: Supervisors should conduct, directly or indirectly, regular, independent evaluation of a bank's policies, procedures and practices related to operational risks. Supervisors should ensure that there are appropriate mechanisms in place, which allow them to remain apprised of developments at banks.

The second pillar of the Basel II proposals (discussed in Section 4.7), and a critical part of the capital adequacy framework, is supervisory review. The expectation for a bank is to operate above minimum capital adequacy ratios, as well as having policies and an internal process in place for assessing capital adequacy (Van Greunen & Bratanovic, 2003:120).

When assessing a bank's capital position, the role of supervisors is to review the internal capital adequacy assessments of the bank, ensure that the bank's position is consistent with its overall risk profile and strategy, and intervene if the bank's capital does not provide a sufficient buffer against risk. The expectation is for supervisors to have an approach for identifying and intervening in situations where declining capital levels raise questions about the ability of a bank to withstand business shocks (Van Greunen & Bratanovic, 2003:120).

4.5.1.4 Role of disclosure

Principle 10: Banks should make sufficient public disclosure to allow market participants to assess their approach to operational risk management.

The disclosure of operational risk information would enable personnel to carry out their responsibilities. The reporting to senior management of risks identified, assessed and mitigated, would help management determine the potential benefit of costs of changing risk appetites for funding additional control systems or processes. Effective communication from senior management to all personnel, regarding an institution's operational risk environment, is also of importance, and it would ensure consistent message that each staff member's role, with regard to managing operational risk, should be taken seriously (Dickstein & Flast, 2009:41).

In light of the above, the study can now focus on a literature review regarding operational risk management and its application in co-operative banks. The following section deals with the current practices used internationally to measure and manage operational risk in co-operative banks.

4.6 CURRENT OPERATIONAL RISK PRACTICES

The importance of Basel II is not just constructed around calculating capital requirements. The implementation of Basel II also increases knowledge on the most up-to-date analysis techniques, which a co-operative bank can implement. An increase in knowledge will help co-operative banks make decisions that are more effective, which means that co-operative banks can benefit from implementing Basel II (Grace, 2005:4).

This section aims to discuss the importance of operational risk management in co-operative banks in different parts of the world, as well as in South Africa. Although this study only focuses on the importance of a section that Basel II aims to implement, all three of the pillars of Basel II are equally important. However, some sections of Basel II will have little to no effect on co-operative banks. Pillar three of Basel II (market discipline) is not relevant to co-operative banks; this pillar is geared toward publicly traded banks. In other words, the unique nature of co-operative banks will exclude them from some sections of Basel II (Grace, 2005:4).

4.6.1 The measurement and management of operational risk from a European perspective

As mentioned in Chapter 2, Section 2.3.1, the Netherlands is home to one of the largest co-operative banks in the world – Rabobank. It is important to discuss how this particular bank manages and measures its operational risk; as such, a discussion can assist in identifying a possible benchmark for South African co-operative banks. Although this large co-operative bank is internationally active, and its practices may be extremely sophisticated, the manner in which it deals with operational risk measurement and management may not apply to the South African co-operative banking environment. The latter, depending on their size, do not have to comply with the Basel II regulations. In addition, it has been established that South African co-operative banks are relatively new and unsophisticated.

It is not surprising that Rabobank implements the most sophisticated measuring methodology proposed by the Basel Committee on Banking Supervision – the Advanced Measurement Approach. The implementation of this approach has been approved by the Dutch Central Bank and allows Rabobank to take into account

realised losses and possible consequences of certain future scenarios (Rabobank Group, 2011:14). Section 4.8 elaborates on the Advanced Measurement Approach.

4.6.2 The measurement and management of operational risk from a Canadian perspective

Grace (2005:1) states that although co-operative banks in Canada have only been subjected to a risk-based capital standard based on Basel I in 2005, Canadian co-operative banks are currently making use of the Standardised Approach and the Advanced Measurement Approach which is based on Basel II (Anon, 2012:7).

As Canadian co-operative banks have the choice of either making use of the Standardised Approach or the Advanced Measurement Approach, whichever measurement the co-operative bank chooses needs approval by the Autorité des Marchés Financiers (AMF) or by the co-operative bank's regulator. The AMF regulates Quebec financial markets and assists customers on financial products and services. The government of Quebec mandates AMF. The AMF also specifies the applicable terms and conditions, and determine whether the implementation of the approach will satisfy management requirements under Quebec law (Anon, 2012:7).

4.6.3 The measurement and management of operational risk from a United States perspective

Hillman *et al.* (2003:44) state that as the United States' co-operative banks engage in complex electronic services and it is required that the technology and information systems implemented by the co-operative banks be reviewed, to ensure that sufficient controls are in place to measure and manage operational risk.

The National Credit Union Association (2005:10) states that, although the proposal for implementing Basel II ensures a better prudential standing, it was not applied to thousands of credit unions across the United States. This is because the cost of implementing this framework would be substantially high and the benefits are questionable.

In 2008, it was decided that Credit Unions had the choice of implementing a modified version of Basel I, which would be the United States' version of the Standardised

Approach, or they could have continued to operate under the existing Basel I framework. Keep in mind that the Basel I framework does not address operational risk management. Co-operative banks were allowed to implement Basel II only if the Primary Federal Supervisors approved it (Eubanks, 2008:1).

4.6.4 The measurement and management of operational risk from an Indian perspective

India follows a three-track approach with commercial-, co-operative- and regional banks, which places each at different levels of capital adequacy norms. Due to the fact that varying degrees of stringent capital regulation raise the possibility of regulatory arbitrage, it is important that entities be subjected to Basel II norms. Entities that do not comply with the Basel regulations include rural co-operative banks such as state co-operative- and district central co-operative banks (Currency and Finance, 2006-2008:68).

India follows a three-tiered regulatory approach. This is a non-Basel approach for regional- and rural co-operative banks. These banks only have the objective of ensuring positive net worth. Urban co-operative banks still follow Basel I (Canara Bank, 2010:2).

It is evident from the above that Indian co-operative banks do not follow Basel II capital requirements for operational risk. It is only required of the urban co-operative banks to implement Basel I for credit risk. However, it was stated that these entities needed to be subjected to Basel II norms. This has, however, not yet been implemented.

4.6.5 The measurement and management of operational risk from a South African perspective

Due to the fact that co-operative banks are new to the South African arena, information regarding the measurement and management of operational risk is largely absent. However, as mentioned in Chapter 3, co-operative banks have to provide for prudential requirements including capital adequacy. The importance of this statement lies in the fact that a co-operative bank's capital adequacy ratio will enable

supervisors to track a co-operative bank's ability to absorb losses that may suddenly occur. Operational risks may be included in the managed risks.

Of extreme importance when viewing the international co-operative banking environment is that, depending on size and sophistication, these banks are inclined to look at the Basel Committee for guidance in measuring and managing operational risk. The fact that the majority of these banks implement the Basel II proposals, albeit to a larger or lesser extent depending on circumstances, provides significant guidance to the South African context when seeking a proposed methodology to measure and manage operational risk domestically. Having said this however, it should be considered that although the implementation of Basel II (in part or in total) provides many benefits to co-operative banks, some co-operative banks are simply too unsophisticated to implement such an advanced section of regulation, not to mention the cost implications associated with such an endeavour. Stated below are some suggestions as to when a co-operative bank should consider implementing Basel II and when a co-operative bank should not implement Basel II.

Table 4.3: Basel II implementation suggestions

Implement Basel II	Do not implement Basel II
Strong, prudential risk-based supervision	No prudential supervision
Co-operative banks compete directly with commercial banks that implement Basel II	Co-operative banks do not compete directly with commercial banks that implement Basel II
Co-operative banks' supervisors understand the calculation of pillar one capital requirements	Supervisory staff will have a difficult time understanding pillar one capital requirement calculations

(Source: Grace, 2005:5).

Considering the above information, it can be said that although South African co-operative bank are regulated more-or-less the same way as commercial banks, having to register at the South African Reserve Bank when deposits reach a certain level, co-

operative banks do not compete directly with commercial banks. With this in mind, together with the international tendency to implement Basel II, and the stage of infancy together with the relative unsophisticated nature of co-operative banks in South Africa, it is the author's view that South African co-operative banks should at least comply with the Basel II Basic Indicator Approach for operational risk.

The Basic Indicator Approach, together with the other approaches, is discussed later in this document. However, before embarking on such a discussion, a background to the Basel Committee should be provided. In this regard, the Basel Committee is introduced in Section 4.7, together with an overview of the Basel Accords, namely; Basel I, Basel II and Basel III.

4.7 THE BASEL COMMITTEE

It is a known fact that the Basel Committee on Banking Supervision is the most influential, international, financial standard-setting body. It exercises either direct or indirect influence over the development of banking law and regulation for all developed countries and most developing countries, including South Africa. Due to the influence the committee has on national regulatory standards, and the importance of the committee in setting international norms, its governance structure merits close examination regarding its decision-making processes, and its role in creating domestic public law standards for banking regulations (Komori & Wells: 2009:377).

The Basel Committee has produced a number of important international agreements that regulate the amount of capital that banks are required to set aside against their risk-based assets, and the jurisdictional responsibility for banking regulators in overseeing the international operations of banks (Komori & Wells, 2009:377).

4.7.1 Introduction to the Basel Committee on Banking Supervision

Robbe-De Vries and Ali (2005:485), supported by Wittenbrink (2011:4), state that the Basel Committee was established by the central bank governors of the Group of Ten countries at the end of 1974, in the aftermath of serious disturbances in international currency and banking markets. The name of the committee is derived from the fact that it is based in Basel, Switzerland together with the Bank of International Settlements (BIS).

The mission of the Basel Committee is to encourage the implementation of stricter supervision and regulation of the banking system. The Basel Committee publishes regular recommendations under the guidance of the Bank of International Settlements. European government and organisations are in charge of transferring these recommendations into European and national law (Wittenbrink, 2011:4). It should be noted that the Basel regulations are presented to the banking community as recommendations and proposals, and that local supervisors can decide whether they will adopt the recommendations and proposals as part of their regulatory framework. The main reason for this practice is that the Basel Committee does not have legislative powers across country borders.

Robbe-De Vries and Ali (2005:485) state that one important goal of the Basel Committee's work has been to close gaps in international supervisory coverage in pursuit of two basic principles:

- That no foreign banking establishment should escape supervision
- That supervision should be adequate.

In order to achieve the above-mentioned principles, the Basel Committee has issued an extensive series of documents since 1975 (Robbe-De Vries & Ali, 2005:485). Wittenbrink (2011:4) states that the Basel Committee on Banking Supervision made an effort to develop suitable supervisory standards, upon which it was decided to publish capital adequacy recommendations. This took place from the mid-1970s onward and resulted in the Basel Capital Accord (Basel I), which was applicable to international banks in all G-10 countries. Basel I was a milestone in the international harmonisation of regulatory capital requirements. The first Basel accord was adopted in 1988 and is credited with providing stability to the international banking system, both through defining consistent safety and soundness standards, and by promoting better coordination among regulators and financial supervisors in participating countries.

However, Basel I had certain shortcomings (Eubanks, 2010:1). It had become evident to regulators that the methods used to calculate the requirements in Basel I were not sufficiently sensitive in measuring risk exposures. It was also evident that the regulatory capital needed in the increasingly complex and dynamic banking system,

could not be determined accurately and consistently under the Basel I framework (Eubanks, 2010:1).

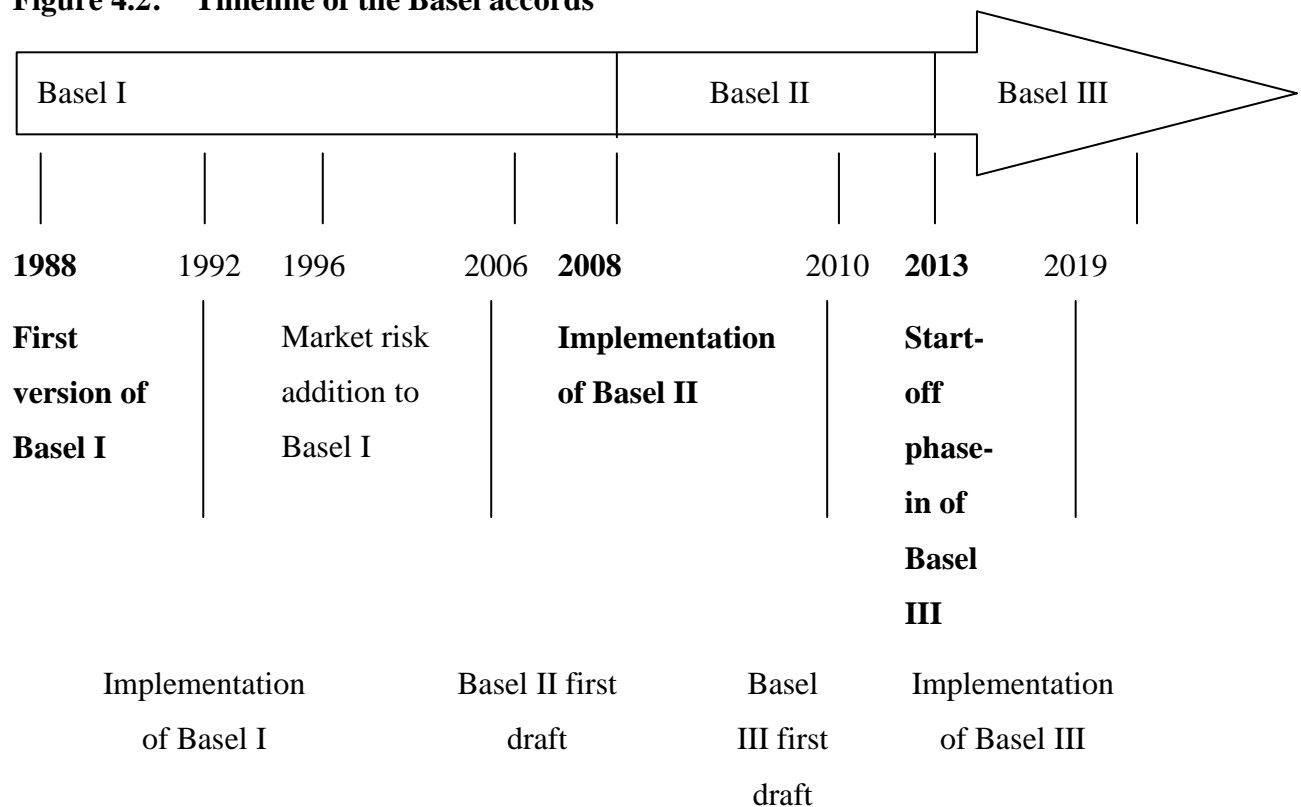
In June 1999, the Basel Committee on Banking Supervision began the process of developing Basel II, with a more up-to-date regulation applicable to all internationally active banks. The new Basel framework – Basel II – aims to improve the stability and reliability of the global financial system. Basel II is based on three mutually reinforcing pillars: Minimum capital requirements; Supervisory review; and Market discipline. In June 2004, after extensive consultation with the global banking sector, the Basel Committee published the new Basel framework, which came into force at the end of 2006 (Wittenbrink, 2011:4-5).

The Bank of International Settlements (BIS, 2012) states that as a result of the lessons learned from the global financial crisis of 2008, the Basel Committee and its oversight body, decided to develop a reform program. The lessons learned from the crisis provided an opportunity to restructure Basel II, and on 16 December 2010, the Basel Committee on Banking Supervision approved a new global regulatory standard. Known today as Basel III, it addresses a number of 'new' risks revealed during the crisis. The Basel III final proposals will take effect in January 2013 (Taft & Ellis, 2012).

This study will not provide an in-depth discussion on either Basel I or Basel III. With regard to Basel I, operational risk has not yet been addressed, while Basel III is a refinement of Basel II, the latter incorporates the operational risk framework. No changes were made in Basel III regarding the operational framework provided in Basel II.

The following figure depicts the relevant accords and the dates that hold significance to each accord.

Figure 4.2: Timeline of the Basel accords



Source: (Ramirez, 2011:365).

In light of the reason for the establishment of the Basel Committee, the following section provides a broad overview of each of the Basel Capital Accords to provide a complete picture as to the functioning of the Basel Committee. The Basel II Accord is discussed in greater detail in Section 4.8.

4.7.2 Overview of the Basel accords

4.7.2.1 Overview of Basel I

As a result of the financial crises which presented itself in the 1970s and 1980s, it was found that capital levels of large banks were depleted. The Basel Committee on Banking Supervision took it upon themselves to establish capital requirements aimed at protecting depositors from undue bank- and systemic risk (Ramirez, 2011:365).

In an effort to establish capital requirements, Basel I was issued in 1988. Basel I provided a set of capital principles designed to strengthen capital levels at large internationally active banking organisations, and to foster international consistency and coordination. Basel I was originally applied only to the largest, internationally

active banks in G-10 countries. However, the intention was for the requirements of Basel I to apply to all banking organisations worldwide, of any size and activity. This means that the aim of Basel I was not only to protect depositors from large, internationally active banks, but depositors from all types of banks (Reich, 2005:66-67).

Musch *et al.* (2008:16) state that there are two fundamental objectives of Basel I:

- To strengthen the soundness and stability of the international banking system by creating common, minimum capital adequacy requirements for internationally active banks to set aside a capital cushion for the amount of risk taken.
- To create a level playing field among international banks by establishing that the framework should be fair and consistent in its application to banks in different countries.

Musch *et al.* (2008:16) also state that in the original Basel I Capital Accord, capital was mainly assessed in relation to credit risk. Other risks, including liquidity-, operational-, and market risk were only addressed partially or indirectly. Basel I effectively loaded all regulatory capital requirements into insensitive risk measures for credit risk (Musch *et al.*, 2008:16).

Upon implementation of Basel I, it was required by all internationally active banks to set aside a minimum of 8% capital against their risk-weighted assets and 4% of Tier 1 core capital. Tier 1 core capital is comprised of common equity shares, disclosed reserves, non-cumulative preserved stock, other hybrid equity instruments, retained earnings, minority interests in consolidated subsidiaries, less goodwill and other deductions. The Tier 1 core capital definition was later changed in Basel III (Hong Kong Institute of Bankers, 2012).

Initially, Basel I received much criticism for a number of reasons. The first reason for the criticism, stated by the Hong Kong Institute of Bankers (2012), is the fact that by using equity as a measure of capital, Basel I fails to recognise that different countries allow their banks varying degrees of access to the stock market. The second reason for the criticism, also stated by the Hong Kong Institute of Bankers (2012), is due to the debate that argues whether to use book- or market values in the computation of Tier 1

and Tier 2 capital. They consider the use of credit risk equivalents for off-balance sheet instruments as too simplistic.

The amendment, in 1996, of the Basel I Capital Accord, introduced the following of a more direct treatment of off-balance sheet items, instead of just converting them into credit risk equivalents. The Basel I Capital Accord Amendment also proposed two alternative approaches to market risk. These approaches included the Internal Model Approach and the Standardised Approach. When following the Internal Model Approach, it is the bank's prerogative to decide how much capital to set aside to cover market risk, based on its models. The Standardised Approach follows formula calculations set by the Basel Committee (Hong Kong Institute of Bankers, 2012).

However, even though amendments to the 1988 accord were made in 1996, Basel I still failed to cope with changing market developments such as growing sophistication of financial products. It also created an incentive to move exposures off the balance sheet, and did not capture important elements of bank risk exposures (Reich, 2005:67).

When the Basel I Capital Accord was first issued, the Basel Committee on Banking Supervision recognised that it was only a starting point, and more refinement would be necessary. Implementing Basel I in the sophisticated financial markets that exist today will prove problematic because Basel I is by far too simplistic. It is evident that as risk management practices advanced, Basel I became outdated and the approaches to measure capital became less meaningful for many institutions. Briefly, the static rules of the 1988 accord have not kept pace with advances in risk management (Reich, 2005:67).

Although Basel I failed to cope with changing market practices, it served the purpose of promoting financial stability by strengthening the capital base of internationally active banks and providing an equitable basis for competition since its inception in 1988.

4.7.2.2 Overview of Basel II

As a result of financial instruments, systems and products becoming more complex, the Basel Committee on Banking Supervision began designing a new regulatory

capital framework. Today, this framework is known as Basel II. The Basel II framework incorporates risk advances in risk measurement and management practices, and also attempts to assess capital charges more precisely in relation to risk, and in particular, credit- and operational risk. The international agreement articulating these principles was issued in June 2004 (Reich, 2005:67).

It is required by Basel II to promote risk management systems. This is done by measuring and maintaining internal data about different loan types for credit- and operational risk (Reich, 2005:67). One particular difference between Basel I and Basel II is that the focus of Basel I is on measuring risk exposure on an asset-by-asset basis, placing assets into simple, broadly-defined risk buckets or categories. Basel II on the other hand, places more focus on enterprise-wide risk management, and encourages institutions to evaluate and assess their risk exposure on a continuous basis (Reich, 2005:67).

June 2004 saw the formal release of the new Basel Capital Accord, after the Basel Committee on Banking Supervision engaged in a revision process of the 1988 accord. Implementation of the new accord was gradual; banks had until January 2007 to implement the simpler approaches, while more sophisticated approaches had to be implemented by January 2008 (Musch *et al.*, 2008:20).

With the introduction of the Basel II Capital Accord, banking supervision reached new heights. An evolutionary, flexible and more complex risk-sensitive approach was presented, which produced very high hopes. Basel II had significantly redefined the risk sensitivity of the Basel I framework. This was achieved by avoiding cross-subsidisation, and thus requiring lower levels of capital for low-risk borrowers and higher levels of capital for high-risk borrowers. The Basel II Capital Accord provided rules applicable to market disclosure, which in turn supported market discipline. The accord also offered supervisory review guidance of banks' risk assessment and management practices (Musch *et al.*, 2008:21).

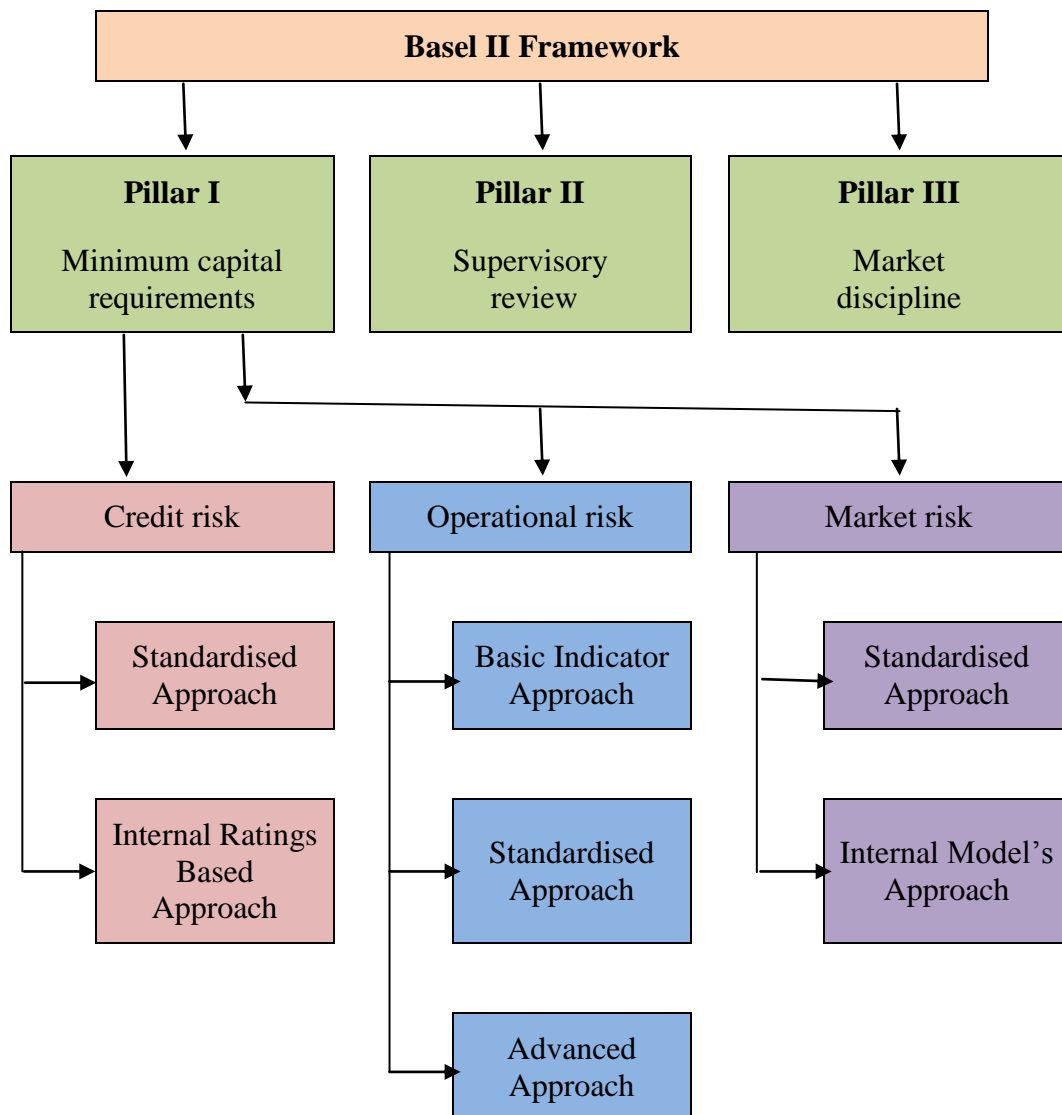
The Basel II Capital Accord introduced a number of new aspects to the regulation and supervision of banks, structured around three mutually reinforcing pillars (Musch *et al.*, 2008:22):

- Pillar I: Minimum capital requirements
- Pillar II: Supervisory review
- Pillar III: Market discipline

Figure 4.3 below depicts these three pillars.

Each of the abovementioned pillars is discussed in Section 4.8. Focus will be placed on Pillar I (minimum capital requirements) and the manner in which operational risk can be measured. As mentioned, this study aims at providing evidence that operational risk needs to be measured in South African co-operative banks. This study also aims to provide a means for measuring this risk with the Basic Indicator Approach as benchmark.

Figure 4.3: Basel II Framework



Source: (Musch *et al.*, 2008:23)

4.7.2.3 Overview of Basel III

In September 2010, the Basel Committee on Banking Supervision released a new set of banking regulatory rules on capital. Today, this is known as Basel III. Under Basel III, significant enhancements to the Basel II framework have been made, including a new definition of Tier 1 capital, and a requirement of banks to hold a higher amount of core Tier 1 capital. The main provisions of Basel III are (Choudhry & Masek, 2011:304):

- The minimum of core Tier 1 capital to be 4.5% of risk weighted assets
- A countercyclical capital buffer of 2.5% required as protection against periods of economic and financial stress
- A Tier 1 ‘leverage ratio’ of 3%.

The definition of Tier 1 capital has been simplified under Basel III; it will only comprise equity, retained reserves and undated preference shares. Tier 2 has also been simplified, and will only comprise preferred shares, hybrid subordinated debt and long-term subordinated debt without incentive to redeem (Choudhry & Masek, 2011:305).

According to Choudhry and Masek (2011:305), a countercyclical capital buffer of 2.5% will be allowed as a response to overheating markets. Countercyclical capital means that banks will have to hold more capital in good times to slow their activity, and less in bad times to foster lending (Essvale Corporation Ltd, 2011:88-89).

With Basel III, the Basel Committee aimed at creating a comprehensive set of reform measures to strengthen the regulations, supervision, and risk management of the banking sector. These reform measures, or Basel III proposals, aim to (Essvale Corporation Ltd, 2011:88):

- Improve the banking sectors’ ability to absorb shocks arising from financial and economic stress
- Improve risk management and governance
- Strengthen banks’ transparency and disclosures.

Basel III aims at extending the capital basis of banks, which will result in improved system stability. It is however, not the aim of the Basel III Accord to improve the methods and processes of banks’ internal credit risk management (Engelmann, 2011:v).

The following section provides a more detailed discussion on the Basel II proposals. As mentioned, Basel II forms the basis of this study, and the means of measuring operational risk under Basel II is closely examined.

4.8 BASEL II: INTERNATIONAL GOVERNANCE OF CAPITAL MEASUREMENT AND CAPITAL STANDARDS: A REVISED FRAMEWORK

Calder (2008:100), supported by Fernando (2006:285-259), state that the Basel Committee on Banking Supervision aimed at rectifying all the deficiencies that were found in the 1988 Capital Accord (Basel I). These efforts stretched over a period of six years and on 26 June 2004, the Basel Committee on Banking Supervision produced a document called: The International Governance of Capital Measurement and Capital Standards: A Revised Framework, also known as the New Basel Capital Accord, or the New Accord. Today, this document is known today as Basel II, and provides new standards that are expected to change the complexion of banking throughout the banking world. As mentioned, the first version of Basel II came out in 1999, which was widely consulted, and a revised version of Basel II came out in June 2004. The aim of Basel II is to correct most of the deficiencies identified in Basel I.

The following section will briefly discuss the overall level of regulatory capital that should be maintained in the banking system at all times. Capital allocation, or pillar one, is the most important pillar of Basel II, and receives the most attention.

4.8.1 Capital allocation for operational-, market- and credit risk

As depicted in Figure 4.4, pillar one of Basel II - Minimum capital requirements – makes provision not only for operational risk, but also for market- and credit risk. This study will not focus on the capital allocation for market- or credit risk. For the sake of completeness however, the capital requirements for market- and credit risk is briefly discussed, followed by a more detailed discussion of the capital requirements of operational risk.

As shown in Figure 4.3, there are different ways for calculating market- and credit risk. Market risk can be calculated by means of either the Standardised Approach or the Internal Models Approach, while credit risk can be calculated by means of either the Standardised Approach or the Internal Ratings Based Approach (Culp, 2004:463). It is important to note that although market- and credit risk are not discussed in this study, these two types of risks still play a very important role in Basel II, and hence the entire banking system. The different ways for measuring operational include the

Basic Indicator Approach, the Standardised Approach, and the Advanced Approach (Frederick & Choi, 2003:3). Emphasis will be placed on the Basic Indicator Approach, as this approach is viewed as the minimum requirement, which co-operative banks in South Africa should comply with.

4.8.2 Pillar I: Minimum capital requirements

One of the major advantages of Basel II is that it allows banks with varying degrees of complexity or sophistication, to be covered under the same framework. It is however, required of banks who implement the Basel II Accord to keep capital reserves for operational risk. The Basel Committee on Banking Supervision proposed several methods for computing operational risk. Capital requirements for operational risk add to the other risks' capital requirements (market risk and credit risk exposures) (Chorafas, 2004:117).

The next section provides a discussion on the different approaches to measure operational risk. The Basic Indicator Approach, the Standardised Approach and the Advanced Approach will be discussed, with emphasis on the Standardised Approach as an approach to be adopted by South African co-operative banks.

4.8.2.1 Approaches for measuring operational risk

The first measurement technique to be discussed is the Basic Indicator Approach. This approach is the least sophisticated and will form the core of this section. This study aims at implementing this, or a similar approach, into South African co-operative banks.

Banks are encouraged to move along the spectrum of available approaches as they get more sophisticated (BIS, 2006:144). However, as mentioned in Chapters 2 and 3, South African co-operative bank are still very unsophisticated, and therefore it will not be feasible to aim at implementing any of the other approaches, other than the Basic Indicator Approach, into South African co-operative banks.

4.8.2.1.1 The Basic Indicator Approach

The Basic Indicator Approach is the only approach proposed to measure operational risk without specific criteria provided for its use. In other words, there are no specific

requirements that banks must meet in order to be able to use the Basic Indicator Approach to measure their operational risk (BIS, 2006:145).

Using the Basic Indicator Approach will set the banks' operational risk capital equal to the banks' average annual gross income over the past three years, multiplied by 0.15 (Hull, 2012:277). If however, a zero or negative annual gross income was experienced for any year, it must be excluded from the calculation. In order to calculate the capital charge, the following formula is used (BIS, 2006:144-145):

$$K_{BIA} = [\sum (GI_{1..n} \times \alpha)] / n$$

Where:

K_{BIA} = the capital charge under the Basic Indicator Approach

GI = annual gross income, where positive, over the previous three years

N = number of the previous three years for which gross income is positive

α = 15%, which is set by the committee, relating the industry wide level of required capital to the industry wide level of the indicator

According to Van Greunen and Bratanovic (2009:141), the Basic Indicator Approach is the most appropriate approach, which banks must implement until senior management has adequate control processes in place.

4.8.2.1.2 The Standardised Approach

When using the Standardised Approach, it is required of a bank to divide its activities into eight business lines, which include (BIS, 2006:146):

- Corporate finance
- Trading and sales
- Retail banking
- Commercial banking
- Payment and settlement

- Agency services
- Asset management
- Retail brokerage.

Under the Standardised Approach, gross income is used as a broad indicator, which serves as a proxy for the scale of business operations within each business line. Therefore gross income also serves as the likely scale of operational risk exposure within each business line (BIS, 2006:146).

In order to calculate the capital charge of each business line, a factor, signifying beta, should be assigned to that business line. Once the factor has been assigned, the capital charge can be calculated by multiplying gross income by the factor assigned to that specific business line (BIS, 2006:146).

The assigned factor for each business line, denoted as beta, will serve as a proxy for the relationship between the aggregate level of gross income, and the operational risk loss experienced during that particular business line. When implementing the Standardised Approach it is important to take note that gross income is measured for each business line, and not for the institution as a whole (BIS, 2006:146).

Banks implementing the Standardised Approach need to hold capital for operational risk, which is calculated as the three-year average of the regulatory capital charges across each of the business lines (BIS, 2006:146).

If however, the bank experienced negative capital charges in a given business line, within a given year, it may offset positive capital charges in other business lines. If negative capital charges were experienced across all business lines, within a given year, the numerator for that year will be zero. The total capital charge may be expressed as (BIS, 2006:147):

$$K_{TSA} = \{ \sum_{years\ 1-3} \max [\sum (GI_{1-8} \times \beta_{1-8}), 0] \} / 3$$

Where:

K_{TSA} = the capital charge under the Standardised Approach

GI_{1-8} = annual gross income in a given year, as identified in the above section of the Basic Indicator Approach, for each of the eight business lines

B_{1-8} = a fixed percentage set by the committee, relating the level of required capital to the level of the gross income for each of the eight business lines.

Table 4.4: Beta values for each business line

Business Lines	Beta Factors
Corporate finance (β_1)	18%
Trading and sales (β_2)	18%
Retail banking (β_3)	12%
Commercial banking (β_4)	15%
Payment and settlement (β_5)	18%
Agency services (β_6)	15%
Asset management (β_7)	12%
Retail brokerage (β_8)	12%

Source: (BIS, 2006:147)

It is important to note that not all banks will be allowed to implement the Standardised Approach. There are a few requirements that must first be met. If a bank wishes to implement the Standardised Approach, the supervisor must first be satisfied that (BIS, 2006:148):

- The board of directors and senior management of the bank in question are involved in the oversight of the operational risk management framework
- The operational risk management system is sound and implemented with integrity
- Sufficient resources are used in the major business lines of the Standardised Approach, as well as in major control and audit areas.

Once the supervisor is satisfied that the abovementioned criteria are being met, he/she can insist on monitoring the implementation process of the Standardised Approach before approving it for use for regulatory capital purposes (BIS, 2006:148).

It is also required of the bank to develop certain criteria, which can map gross income for current business lines and activities into the Standardised framework. It is important to review and adjust these criteria for new and changing business activities when the situation presents itself (BIS, 2006:148).

It is of utmost importance that banks wishing to implement the Standardised Approach have adequate operational risk management systems in place. Once the supervisor has approved the implementation thereof, banks still need to meet some criteria when using the Standardised Approach. Banks are required to meet these standards at all times when making use of the Standardised Approach. These standards include (BIS, 2006:149):

- Having an operational risk management system in place, which stipulates all the responsibilities assigned to an operational risk management function.
- Tracking relevant operational risk data systematically by the bank's internal operational risk assessment system. This data includes material losses by each business lines.
- Regular reporting to the board of directors, senior management, and business unit management regarding operational risk exposures.
- Documenting the bank's entire operational risk management system.
- Regular independent reviewing of the bank's operational risk management processes, as well as their operational assessment system.
- Regular reviewing by external auditors and supervisors of the bank's operational risk assessment process.

The following section will provide an overview of the Advanced Measurement Approach.

4.8.2.1.3 The Advance Measurement Approach (AMA)

This is the most advanced approach, which a bank can choose when measuring operational risk exposure. There are numerous requirements that must be met in order to be approved by the supervisor to implement the AMA. Banks implementing this approach will be allowed to calculate its regulatory capital charge based on internal risk variables and profiles, and not on exposures like gross income (Lubbe & Snyman, 2009:1).

When implementing the Advanced Measurement Approach, regulatory capital requirements must equal the risk exposure of the bank, which is generated by the internal operational risk measurement system when using qualitative and quantitative criteria (BIS, 2006:147).

Only with the approval of the host supervisor and the home supervisor, may the bank make use of an allocation mechanism that determines the regulatory capital requirement for internationally active banking subsidiaries that are not significant, relative to the overall banking group. The supervisors only give approval once the bank has demonstrated that the allocation mechanism for these subsidiaries is appropriate and empirically supported (BIS, 2006:147-148).

Not all banks are allowed to implement the Advanced Measurement Approach; there are certain criteria that must first be met. The bank must prove to the satisfaction of the supervisor that (BIS, 2006:149-150):

- The operational risk framework of the bank is being overseen by the board of directors and the senior management
- The operational risk management system in place is sound, and the implementation process is done with integrity
- Sufficient resources are used in the major business lines of the Advanced Measurement Approach, as well as in major control and audit areas.
- As with the implementation of the Standardised Approach, the supervisor of the bank may require an initial period of monitoring in order to determine if the approach is credible and appropriate for the bank in question. This monitoring

process will take place before the supervisor decides whether the bank may use the approach for regulatory purposes (BIS, 2006:150).

The Basel Committee on Banking Supervision recommend the following qualitative standards in order for a bank to implement the Advanced Measurement Approach. These standards include (BIS, 2006:150-151):

- An operational risk management framework designed and implemented by an independent operational risk management function
- An internal operational risk measurement system, which is closely integrated into the day-to-day risk management process of the bank
- Regular reporting to the board of directors, senior management and business unit management regarding operational risk exposures
- Documenting the bank's entire operational risk management system
- Regular review of the operational risk management processes, as well as the operational risk-management measurement system. Internal- or external auditors must perform this.

The Advanced Measurement Approach provides flexibility in the development of an operational risk measurement- and management system to all banks incorporating this approach. However, it is required of all banks implementing this approach to maintain rigorous procedures for operational risk model development (BIS, 2006:151).

4.9 CONCLUSION

Chapter 4 investigated operational risk and provided a discussion on the different definitions of terminology relating to operational risk. Section 4.3 discussed the different levels of operational risk, highlighting the different risk areas that an operational risk manager should be aware of when identifying operational risk sources. Each of these areas focuses on a specific dimension; people, processes, technical errors and technology.

Section 4.4 investigated the classification of operational risk, identifying internal and external sources of operational risk, and highlighted the fact that operational risk can

be either expected or unexpected. The discussion on operational risk type, event type and loss type, together with loss severity and frequency, further explained the context of operational risk and provided an understanding of what operational risk management entails.

In addressing the proposed practices for operational risk management, Section 4.5 highlighted four key elements as presented by the Bank of International Settlements. These elements not only focus on the risk management environment, but also address the identification, assessment, monitoring and control of risk, together with the roles of supervisors and disclosure, by addressing certain stated principles.

In Section 4.6, current operational risk practices are discussed in order to determine which practices are preferred by co-operative banks in the global arena, especially Europe, USA, Canada and India. In this regard, it was found that the majority of co-operative banks globally, seek guidance from the Basel II proposals in measuring and managing operational risk. Although some exceptions exist, the tendency is towards the Basel II Accord. Also from Section 4.6, it was evident that little literature regarding operational risk measurement and management in South African co-operative banks is available. Therefore, in measuring and managing operational risk, South African co-operative banks should at least follow the Basic Indicator Approach proposed by the Basel II Accord.

In the light of the importance of the Basel II Accord, Sections 4.7 and 4.8 investigated the Basel Committee's activities in establishing the Basel I, Basel II and Basel III recommendations, while also providing an overview of each of these accords. Specific attention is directed towards the Basel II Accord, as it addresses operational risk under the first pillar concerning minimum capital requirements. Although the Basel II Accord makes provision for minimum capital requirements for market risk, credit risk and operational risk, those applicable to operational risk are highlighted, with a discussion on the different methods used to calculate operational risk according to Basel II.

Chapter 5 directs the research focus towards information on operational risk management practices currently applied by co-operative banks in South Africa. It also deals with the approach and methodology used in obtaining information, which was

carried out using a structured questionnaire, as well as an analysis of the information obtained from the questionnaire. It is important to note that a pilot study has been conducted and that conclusions will be drawn based on this study.

CHAPTER 5

CURRENT OPERATIONAL RISK PRACTICES IN SOUTH AFRICAN CO-OPERATIVE BANKS

” The risk of a wrong decision is preferable to the terror of indecision” (Maimonides, 2011).

5.1 INTRODUCTION

The previous chapter focussed on the different methods, which can be used to measure operational risk according to the Basel II requirements. Emphasis was placed on the Basic Indicator Approach, the Standardised Approach, and the Advanced Measurement Approach.

Chapter 4 concluded that although the Basic Indicator Approach is the simplest method, it does not offer the implementing bank much flexibility and often results in the bank having to keep more capital than is necessary. The Standardised Approach, although more complex than the Basic Indicator Approach, provides the implementing bank more flexibility with regard to the capital that needs to be set aside for operational risk. Lastly, the Advanced Measurement Approach (AMA), which is the most complex, is the desired approach for most banks that adhere to the Basel II standards. The AMA provides each bank with the prerogative to use a measuring method of their choice.

Chapter 4 also aimed to provide enough information to prove that the implementation of the Basic Indicator Approach would be suitable for South African co-operative banks. As mentioned throughout this study, co-operative banks are relatively new to South Africa and implementing any other, more advanced method would not only be costly but impractical.

This chapter aims to provide insight regarding the current methods used to measure and manage operational risk in South African co-operative banks. This chapter will also provide information regarding the current knowledge of Basel II in South African co-operative banks based on the pilot study.

The following section describes the research methodology used for this study. The section provides a description on the research design, research setting, research population, research sample, and method of data collecting.

5.2 DEFINING THE TERM PILOT STUDY

For the purpose of this study, a pilot study was undertaken. It is therefore important to fully understand the concept, which will subsequently be discussed. As will be mentioned throughout this chapter, a pilot study was undertaken due to the low response rate received from the distributed questionnaires.

According to Hall (2008:79) a pilot study is a smaller scale version of the main study and is designed to check that the design is doing the job it is supposed to do. The aim of a pilot study is to try out the research approach in order to identify potential problems that may affect the quality and validity of the results. A pilot study is not the same as an exploratory study, which is a proper study with the aim to study a phenomenon, albeit in an exploratory way (Blessing and Chakrabarti, 2009:114).

The main roles of a pilot study include (Hall, 2008:79):

- Identifying unanticipated problems that might affect the viability of the main study.
- Checking the reliability and validity of the data collection instruments being used – in this study structured questionnaires were distributed.
- Checking that the timing of interviews and questionnaire completion is in accordance with that allowed for in the main study.

5.3 RESEARCH DESIGN

Brikhofer (2011:2) states that it is understood that design methodology should be:

A concrete course of action for the design of technical systems that derives its knowledge from design science and cognitive psychology and from practical experience in different domains. It includes plans of action that

link working steps and design phases according to context and organisation. These plans must be adopted in a flexible manner to the specific task at hand. It also includes strategies, rules and principles to achieve general and specific goals as well as methods to solve individual design problems or partial tasks.

Laurel (2003:10) states that there are so many definitions of design, it would be impossible to pin down a definitive one. Laurel further states that Charles Earnes offered a definition, which stipulates design as a problem-solving discipline. The definition reads: “A plan for arranging elements in such a way as to best accomplish a particular purpose.”

Design research creates a place to braid theory and practice to make the work stronger (Laurel, 2003:10). Brikhofer (2011:9) states that research design can be understood as a construct of models, methods, tools, approaches, rules and advice, formulated to be a guideline for “better” design output and design work.

Marczyk *et al.* (2005) provide a checklist that can be used when conducting research. As there are many things a researcher should consider when conducting research, this checklist will only highlight the major considerations to keep in mind.

- The researcher must follow the scientific method. In doing this, the researcher will be able to separate science from non-science. Using this method will assist the researcher in researching only valid and scientifically defensible conclusions.
- The researcher must keep the goals of the scientific research in mind. The aforementioned goals are to describe, predict and understand or explain. In keeping these goals in mind, the researcher will be assisted in achieving his/her goals of answering questions and acquiring new knowledge.
- The researcher must use operational definitions. Using operational definitions will reduce confusion, as well as clarify exactly what is being studied.
- The researcher should be fully aware of the impact that cultural differences may have on the study outcome.

- The researcher must choose reliable and valid measurement strategies. It is important to ensure that measurement strategies actually measure what they are supposed to measure and do so in a consistent manner.
- The researcher should exercise care when analysing and interpreting the data. A proper analysis of the data will allow researchers to draw accurate conclusions from the study.
- The researcher should be familiar with commonly encountered ethical considerations. Researchers have the obligation to respect ethical standards when conducting research.
- The researcher should disseminate the results of his/her research study. Science will advance when research is disseminated; therefore, all researchers should aim at making their findings public.

This research study used a quantitative design in order to analyse, identify and describe the current manner in which operational risk is seemingly being managed within South African co-operative banks. Data was collected from SACCOs and co-operative banks in South Africa in order to determine the viability of implementing a framework for managing operational risk based on Basel II.

5.3.1 Quantitative research

One major purpose of quantitative research is to make valid and objective descriptions on phenomena. The researcher attempts to achieve objectivity by not letting his/her personal biases influence the analysis and interpretation of the data (Taylor, 2005:91). All quantitative research shares common ground due to the fact that all research follows a common process. This process includes the following (Taylor, 2005:92):

- Research questions are developed to guide the research at hand
- Data sources are identified, depending upon the type of research being conducted
- Research tools are identified, such as surveys, questionnaires, standard tests, interviews, inventories and check list

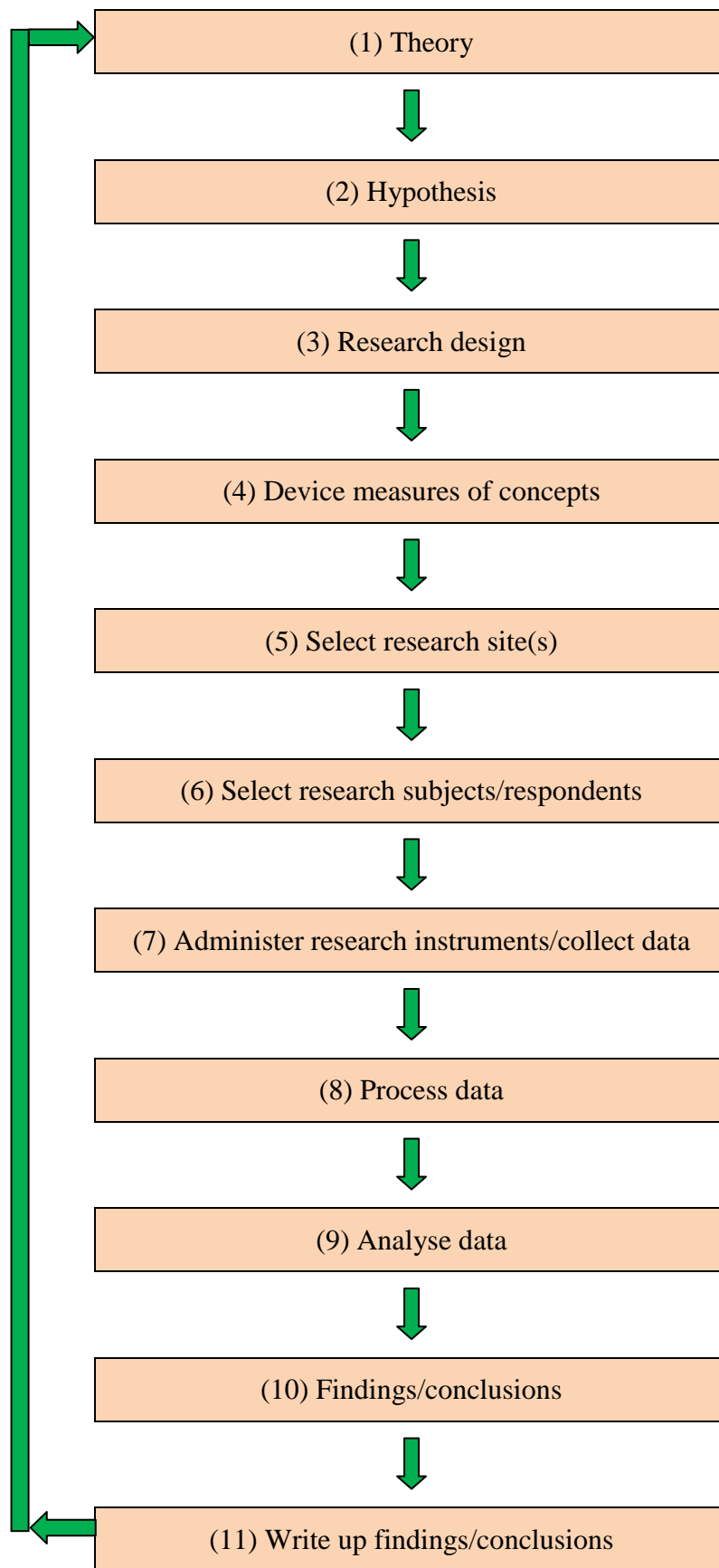
- Methods and procedures are established and specific steps are outlined for conducting the research
- Data is analysed using statistical procedures.

5.3.1.1 Main steps in quantitative research

This section provides a discussion on the main steps of quantitative research. The process as depicted in Figure 5.1, in its purest form, is often never used to the full extent. The process depicted captures the main steps, which provide an indication of how each step interconnects (Bryman & Bell, 2007:155).

Although step one is very important, it is found that step two is most likely to be found only in experimental research. A great deal of quantitative research does not entail the specification of a hypothesis. Instead, as mentioned, step one – theory – acts as a set of concerns in relation to which the researcher collects data (Bryman & Bell, 2007:155).

Figure 5.1: Main steps in quantitative research



Source: (Bryman & Bell, 2007:155)

Step three (research design) has numerous implications. These implications include external validity of findings and the researcher's ability to impute causality to his/her findings. Step four (devise measures of concepts) entails a process in which the researcher formulates certain concepts in which he/she may be interested. This process is often referred to as operationalisation (Bryman & Bell, 2007:155).

Step five (select research site) and step six (select research subjects/respondents) are interrelated. Step five entails selecting a community that would be appropriate for testing, while step six entails selecting a population which would be appropriate for testing. With regard to experimental research, these two steps are likely to include the assignment of subjects into control and treatment groups (Bryman & Bell, 2007:156).

Step seven (administer research instruments/collect data) entails social survey research instruments. This will involve interviewing selected sample members by means of structured interviews or distributing a self-completing questionnaire. This type of research is called cross-sectional research (Bryman & Bell, 2007:157).

Step eight (process data) entails the process of transforming what has been collected into useful data. This process entails quantifying all the data that has been collected. Step nine (analyse data) entails a process where the researcher has the option of using numerous quantitative analysis techniques in order to reduce the amount of data collected. The researcher must test for relationships between variables, and develop ways in which he/she can present the results of the analysis to others (Bryman & Bell, 2007:157).

Step 10 (findings/conclusions) and step 11 (write up findings/conclusions) are again interrelated. Once the researcher has interpreted his/her findings, the research must be written up. The research must enter the public domain in some way by means of a written paper, which will be read at a conference, or as a book/journal article for academic business research. The researcher however, must convince his/her readers that the research conclusions are important and that the findings are robust. Convincing the readers of the significance and validity of the research is the most important part of the research process (Bryman & Bell. 2007:157).

5.3.1.2 Characteristics of quantitative research

This section will provide some of the major characteristics of quantitative research. The characteristics are depicted in Table 5.1. Subsequently, each of the characteristics will be discussed.

Table 5.1: Characteristics of quantitative research

Dimension	Quantitative research implication
Purpose	Prediction and control, cause and effect
Focus	Selected, redefined and narrow variables are studied
Data	Data is impersonal but consistent, number driven
Instrumentation	Tests and instruments
Reality	Stable, quantifiable facts
Values	Value free controlled
Orientation	Predetermined hypotheses are tested
Conditions	Research is conducted under controlled conditions
Results	The focus is on replicable but flat and thin data

Source: (Grady, 1998:6)

The characteristics depicted in Table 5.1 above, include (Grady, 1998:6-10):

- Purpose – the purpose of quantitative research is usually prediction and control
- Focus – the focus of quantitative research is placed on variables. It is important that variables remain narrow, focussed and refined. It is equally important that variable remain uncontaminated, therefore not allowing spurious influences to enter into the study.
- Data – in quantitative research, the data being used is usually numbers. These numbers can be easily manipulated statistically using sophisticated computer programmes. Quantitative research produces ‘flat’ or ‘thin’ data, which as mentioned, is easily manipulated and interpreted.

- Instrumentation – included in quantitative data collecting, the techniques used usually include tests, questionnaires or other paper-and-pencil instruments. The advantage of using tests or questionnaires is consistency. Each respondent will receive exactly the same questionnaire.
- Reality – quantitative research is built on a positivist approach that dominates natural science investigations.
- Values – the researcher attempts to create a process and implement an approach to the research question that is ‘value-free’ or at least one in which the values are defined and controlled.
- Orientation – quantitative research is based on stated hypotheses that are tested and then either accepted or rejected. Once the hypotheses are stated, it may not change.
- Conditions – quantitative research is carried out under controlled conditions.
- Results – quantitative results are usually numerical. As mentioned, results are ‘flat’ and ‘thin’. Numbers have the advantage of being consistent and replicable.

5.4 RESEARCH SETTING

The research setting refers to the physical location in which the data will be collected. This could entail a field setting or a laboratory setting (Sim & Wright, 2000:34). According to Polit and Beck (2008:221), a qualitative researcher often strives to collect data in one particular type of setting in order to ensure control over the environment.

5.5 RESEARCH POPULATION AND SAMPLE

Usually the goal of scientific research is to describe the nature of a population. According to Wimmer and Dominick (2010:87), a population can be defined as, “a group or class of subjects, variables, concepts or phenomena.”

When examining every member of a population, it is called a census. It is important to note that it is often impossible to examine an entire population due to cost constraints, limited resources and time. Often a sample is taken from the population and

examined. A sample can be defined as follows (Wimmer & Dominick (2010:87), “A subset of the population that is representative of the entire population.”

A sample that is not representative of the population will be inadequate for testing purposes because results cannot be generalised to the population from which the sample was drawn (Wimmer & Dominick, 2010:87).

5.5.1 Population

The research population for this study comprised all savings and credit co-operatives and co-operative banks in South Africa. As mentioned in Chapter 2, in 2011 there were 18 co-operatives which were eligible to apply for registration as a co-operative bank (Co-operative Banks Development Agency, 2011:10).

Although there were 18 eligible co-operatives, only 11 applications were adequately completed. In Chapter 2, six of the largest credit unions, which were eligible for registration as co-operative banks in 2011, were mentioned. All the eligible credit unions had assets of between R4 500 000 and R1 400 000. These credit unions also form part of the population.

Also mentioned in Chapter 2 were the two savings and credit co-operatives which successfully registered as co-operative banks. The Ditsobotla Primary Savings and Credit Co-operative Bank was the first co-operative bank to register on 17 February 2011. Orania Savings and Credit Co-operative Limited was also given approval for registration (Co-operative Banks Development Agency, 2011:10).

Although 11 applications were completed, only the two abovementioned savings and credit co-operatives were registered as co-operative banks. The remaining nine co-operative financial institutions did not meet the registration requirements.

5.5.2 Sample

For the purposes of this study, non-probability sampling was used due to the fact that questionnaires were distributed to the largest savings and credit co-operatives and co-operative banks in South Africa.

When making use of non-probability sampling designs, the elements in the population do not have any probabilities assigned to them; these probabilities would indicate the likelihood of being chosen as sample subjects. Statistical techniques may not be used in the analysis of the evidence. Some examples of non-probability sampling include judgement samples, convenience samples, quota samples and snowball samples. The subjective judgements of the researcher are used in selecting a sample. Non-probability sampling is most relevant in exploratory research (Williams *et al.*, 2005:193).

5.5.2.1 Characteristics of non-probability sampling

Listed below are some of the main characteristics of non-probability sampling according to Singh and Nath (2007:166):

- There is no idea of population in non-probability sampling
- There is no probability of selecting any individual
- Non-probability sample has free distribution
- The observations of non-probability sampling are not used for generalisation purposes
- Non-parametric or non-inferential statistics are used in non-probability sampling
- There is no risk for drawing conclusion from non-probability sampling.

Five saving and credit co-operatives and two co-operative banks were identified. The five savings and credit co-operatives and the two co-operative banks are listed below.

- Kleinfontein Savings and Credit Co-operative
- Oranjekas Savings and Credit Co-operative
- Alrode Savings and Credit Co-operative
- Sibanye Savings and Credit Co-operative
- The South African Municipal Workers Union

- The Ditsobotla Primary Savings and Credit Co-operative Bank – a primary savings and credit co-operative bank
- The Orania Savings and Credit Co-operative Limited – a primary savings and loans co-operative bank

Questionnaires were distributed to all, however only three participated in this study as responses were only received from three of the above entities. In this study, data was collected from two savings and credit co-operatives and one co-operative bank. The reason these savings and credit co-operatives were chosen is because, as mentioned, the savings and credit co-operatives all qualified to register as co-operative banks, which means they are all large institutions as well as relatively sophisticated. Implementing Basel or similar regulation will not be applicable to small, unsophisticated institutions.

The co-operative banks were chosen as the sample study because these are the only two registered co-operative banks in South Africa. It was very important to gain information from these institutions in order to gain insight into the current manner in which they function.

5.6 DATA COLLECTING

Data can be characterised as quantitative. It can be defined, in a very broad sense, as numbers, characters, images or other outputs from devices to convert physical quantities into symbols. Essentially, it can be defined as a collection of facts; whereas information is the result of processing and organising data in a way that adds to the knowledge of the person receiving it (Office of Government Commerce, 2007:33).

In this study, structured questionnaires were used to obtain data relevant to the study's objectives and research questions. The questionnaires were distributed on specific days in 2012. Because of the low participation rate, and specific time constraints pertaining to data analysis, it was decided that the three responses received would be used for data analysis.

5.6.1 Data collecting instrument

Quantitative data instruments include questionnaires, standardised measuring instruments, *ad hoc* rating scales or observation schedules (Punch, 2006:52). For the purposes of this study, only questionnaires were used in order to gather information regarding the current manner in which operational risk is measured and managed in South African co-operative banks. The pilot study conducted gave an indication as to which operational risk instruments are currently being used within these banks.

5.6.1.1 Characteristics of a questionnaire

As mentioned, the only data-collecting instrument used in this study was questionnaires. Before discussing the characteristics of a questionnaire, it is first necessary to establish the definition of a questionnaire. According to Dornyei and Taguchi (2010:3-4), questionnaires are, “Any written instruments that present respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers.”

When making use of a questionnaire, it can be seen as a highly structured data-collecting instrument. As the above-mentioned definition indicates, either this data-collecting instrument asks about very specific pieces of information, or it gives the respondents the option to choose from various responses (Dornyei & Taguchi, 2010:9).

When conducting quantitative research or statistical analysis, making use of questionnaires proves to be very useful. This is due to the fact that as mentioned in Section 5.2.1.2, the main characteristics of quantitative analysis is that it employs categories, viewpoints and models, which have been defined by the researcher in advance. In the process of doing quantitative research, the researcher collects numerical or directly quantifiable data in order to determine the relationship between these categories and to test the research hypotheses (Dornyei & Taguchi, 2010:9).

Questionnaires share common features as stated by Conway (2006:3), they include:

- Dealing with an important topic. This topic should be recognised by the sample as important enough in order to warrant the time required to complete the

questionnaire The importance of the topic at hand should be stated on the questionnaire or on an accompanying cover letter

- The questionnaire should seek to find information that can only be acquired by making use of this source
- It is equally important that the questionnaire be as short as possible
- The questionnaire should also be attractive in appearance, neatly and logically arranged, clearly printed and easy to answer
- The contents of the questionnaire should be clear and complete directions and definitions of important terms should be provided
- It is very important that the questionnaire be objective with no leading questions indicating the desired response
- The questionnaire should be logical, proceeding from general to specific responses
- The questionnaire should be easy to tabulate and interpret. Preconstruction of tabulation sheets are important, this should show how the data would be handled before the final form of the questionnaire is determined.

5.6.1.2 Development of the questionnaire

The literature review in Chapters two, three and four, indicated that co-operative banks play a very significant role in the Republic of South Africa. Co-operative banks encourage savings among its members, which is important from a South African perspective. The importance of operational risk within co-operative banks becomes evident when considering the effective functioning of co-operative banks. If co-operative banks do not function effectively, the daily operations of co-operative banks could result in losses, which would impact the members/shareholders negatively, and in turn discourage savings.

Due to the fact that a co-operative bank and its associated operational risk practices are in the early stages of development, a lack of expertise and limited risk frameworks limit the effective functioning of co-operative banks (Shevchenko, 2010:3).

The literature review in Chapter two, three and four indicated that co-operative banks' knowledge of Basel and operational risk management is very limited. The main aim of this study is to identify the current manner in which co-operative banks measure and manage operational risk.

The literature review indicated that co-operative banks do not have to adhere to the Basel standards (Chapter 3), and as mentioned, these institutions are in the early stages of development in South Africa. These facts explain the reason why these institutions have such limited knowledge regarding the Basel framework.

The questionnaire was based on the literature review, which was completed in Chapter two, three and four. The questionnaire was compiled and discussed with the researcher's supervisor and the subject head. Suggested changes were implemented, and the questionnaire was typed and translated into Afrikaans.

No apparent problems were encountered during the completion of the questionnaire. The low response rate did however present a problem in obtaining conclusive evidence regarding the current knowledge and methods currently being applied in co-operative banks in South Africa. Therefore, as mentioned only a pilot study was conducted. The questionnaires in English and Afrikaans are included in the study as Appendix A and B.

5.6.1.3 Structure of the questionnaire

Section 1 – Operational risk identification

The first section is aimed at gaining information pertaining to the current manner in which the institutions identify certain risks. This entails collecting information regarding the risks, which are currently regarded as primary risks, and the awareness and understanding of operational risk.

The information obtained from this section provides insight as to which risks are regarded as important, and specifically the importance of operational risk.

Section 2 – Operational risk measurement

The second section of the questionnaire comprised questions regarding the current manner in which these institutions measure operational risk. This entails questions regarding the importance of qualitative and quantitative methods, which are currently being used to measure operational risk. This section also included questions on whether the impact of operational risk is measured and documented.

Section 3 – Operational risk control

This section contained questions regarding the current manner in which operational risk is controlled by the sample study. Questions regarding the importance and implementation of control measures of operational risk are posed to the sample entities.

Section 4 – Operational risk management

This section comprised questions regarding the current manner in which operational risk is managed. The competency and structure of the current operational risk framework were under question, as well as whether operational risk forms an integral part of the current management process.

Questions are also posed regarding which IT tools are in place for operational risk management and whether there are structures in place to improve these tools.

Section 5 – Basel II implementation for operational risk

Section five aimed at identifying the current knowledge about Basel II, and if these institutions regard the implementation of Basel II as important.

In an attempt to establish which operational risk measurement and management methods are currently being used in South African co-operative banks, the questionnaire included only closed-ended questions.

5.7 STATISTICAL ANALYSIS OF QUESTIONNAIRE RESULTS

This section provides an interpretation of the data collected from the questionnaires, which were distributed. This section will also provide a discussion on the techniques used to interpret the data.

5.7.1 Techniques used to interpret data

For the purpose of this study, the standard deviation and arithmetic mean were calculated, in order to interpret the data. By calculating the standard deviation and arithmetic mean, the various questions could be interpreted by according to their importance to the sample study.

The standard deviation and arithmetic mean were calculated using Microsoft Office Excel 2007. From these calculations, graphs were drawn up, where applicable, and conclusions to the importance of the questions were formulated.

5.7.2 Response from the type of institutions

According to Alagar (2009:171), an average can be defined as, “A representation of the whole value which lies between the minimum and the maximum value of the data. An average is a single number describing some features of the set of data.”

Alagar (2009:171) also indicates that there are different types of averages, which include the arithmetic mean, the median and the mode. The arithmetic mean also consists of different types, which include the arithmetic mean, the geometric arithmetic mean, and the harmonic arithmetic mean. The arithmetic mean is used in this study.

The arithmetic mean can be found by dividing the sum of all the observations by the total number of the observations. In other words, the arithmetic mean is another word for the average of all the answers. It was important to calculate the arithmetic mean in order to calculate the standard deviation. By calculating these two variables, the perceived importance of the factors stated in the questions can be determined.

It is important to note that although there were a very limited number of respondents to this study, the use of the arithmetic mean is still valid. As stated by Kenney and

Keeping (1962:211), when using small samples the sample mean is a more efficient estimator of the population mean than the statistical median. This corroborates the argument that the data is valid and useful.

The second important term, which needs defining, is the standard deviation. This term however, is only a method in which dispersion is measured. Dispersion can be defined as, “A measure of the variations of the item from the central value” Alagar (2009:238).

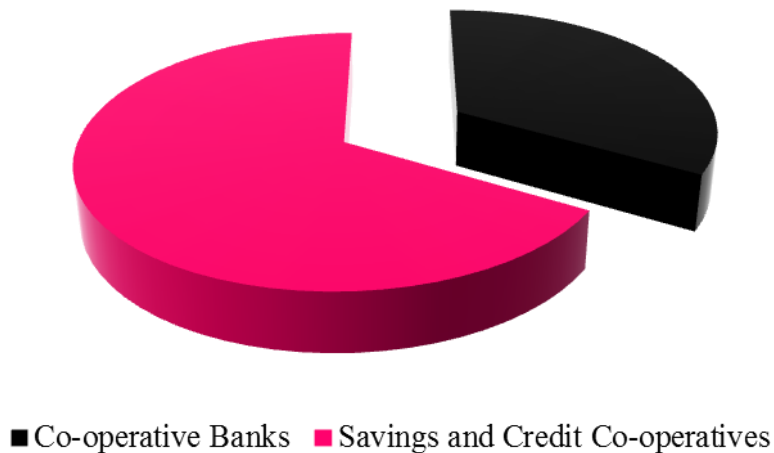
There are different dispersion measurements, these which include the range, the quartile deviations, the standard deviation, the arithmetic mean deviation and the Lorenz Curve. As mentioned, the standard deviation is used in this study. The standard deviation can be defined as (Alagar, 2009:238), “The square root of the sum of the square deviations from the average”

In other words, the standard deviation is an indication of how varied the answers are to the same question. A large standard deviation is an indication that the participants all had different answers to the same question and a small standard deviation is an indication that the answers to the question were close to each other.

Seven questionnaires were distributed and feedback was received from only three of the sample participants. This equates to a 42.8% response rate. Due to the fact that there was a response rate of only 42.8%, the study was regarded as a pilot study and no distinct conclusions were drawn from the responses. A response from the largest registered co-operative bank in South Africa, as well as from the largest Savings and Credit Co-operative, were amongst the three responses received.

The responses received, were from savings and credit co-operatives and one co-operative bank, as depicted in Figure 5.2 below. All the different types of institutions targeted in this study responded to the questionnaires distributed. For the purposes of this study, it will be concluded that all types of large savings and credit co-operatives and co-operative banks are represented in the sample. Due to the low response rate the findings may not be generalised to be relevant to all savings and co-operatives, and co-operative banks.

Figure 5.2: Response by type of institution



5.7.3 Results of questionnaire on operational risk identification

The statistical results of the distributed questionnaires will be discussed in this section. The arithmetic mean and the standard deviation will be tabulated and depicted in graphs throughout this section, where applicable. The remainder of the questions will also be discussed. As mentioned the questionnaire, in English and Afrikaans, as well as the accompanying cover letter, can be found in Appendix A, B and C respectively.

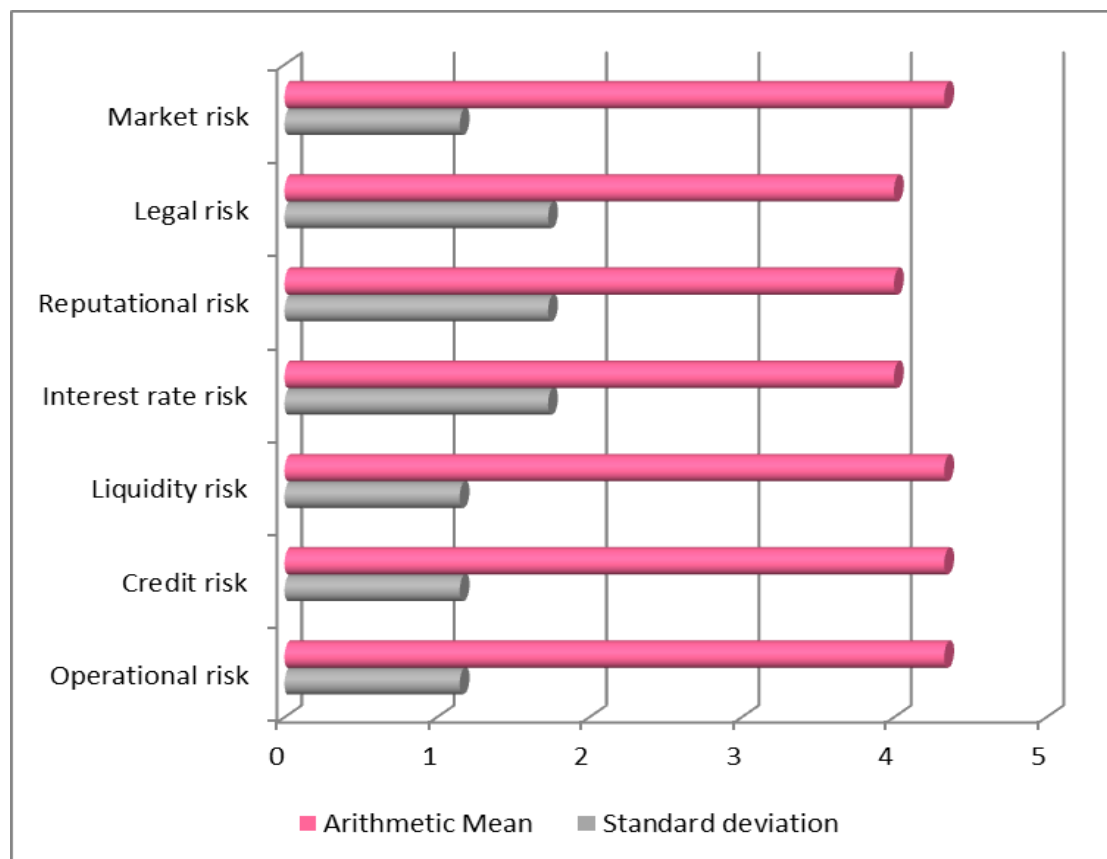
5.7.3.1 Primary risk types

Table 5.2 and Figure 5.3 depict the response from the respondents, which indicate what type of risks are regarded as primary risks. An arithmetic mean of between four and five, and a standard deviation, which is equal to or smaller than 1.5, is an indication that the risk or factor under discussion is regarded as highly important.

Table 5.2: Arithmetic mean and standard deviation of primary risk types

	Arithmetic mean	Standard deviation
Operational risk	4.33	1.15
Credit risk	4.33	1.15
Liquidity risk	4.33	1.15
Interest rate risk	4	1.73
Reputational risk	4	1.73
Legal risk	4	1.73
Market risk	4.33	1.15

Figure 5.3: Arithmetic mean and standard deviation of primary risk types



From Table 5.2, operational risk can be regarded as a primary risk type with an arithmetic mean of 4.33 and a standard deviation of 1.15. The respondents also

indicated that the awareness of their employees about operational risk might be very high, with an arithmetic mean of four and a standard deviation of one. This indicates that operational risk might possibly be regarded as a very important primary risk and that employees might be very aware of this importance. The respondents also indicated the importance of adopting a specific definition for operational risk. This question received an arithmetic mean of four and a standard deviation of one, which might indicate that a specific definition for operational risk is of high importance to these institutions.

The pilot study indicates that credit risk can be regarded as a primary risk type, with an arithmetic mean of 4.33 and a standard deviation of 1.15. This indicates that credit risk in co-operative banks, as well as in co-operatives, might be very important.

Table 5.2, indicates that liquidity risk might also be regarded as a very important risk, with an arithmetic mean of 4.33 and a standard deviation of 1.15.

Interest rate risk can be regarded as less important than the other three risks. Interest rate risk has an arithmetic mean of four and a standard deviation of 1.73. This indication still proves that interest rate risk can be regarded as a primary risk type, however operational-, credit- and liquidity risk might be regarded as more important.

Reputational risk can also be regarded as a less important primary risk, with an arithmetic mean of four and a standard deviation of 1.73. As with interest rate risk, reputational risk can be regarded as a primary risk type, however operational-, credit-, and liquidity risk can be are regarded as more important.

As with interest rate-, and reputational risk, legal risk can also be regarded as a less important primary risk type, with an arithmetic mean of four and a standard deviation of 1.73, as compared to operational-, credit-, and liquidity risk.

Market risk has an arithmetic mean of 4.33 and a standard deviation of 1.15. This indicates that the respondents might possible believe market risk to be a very important primary risk type.

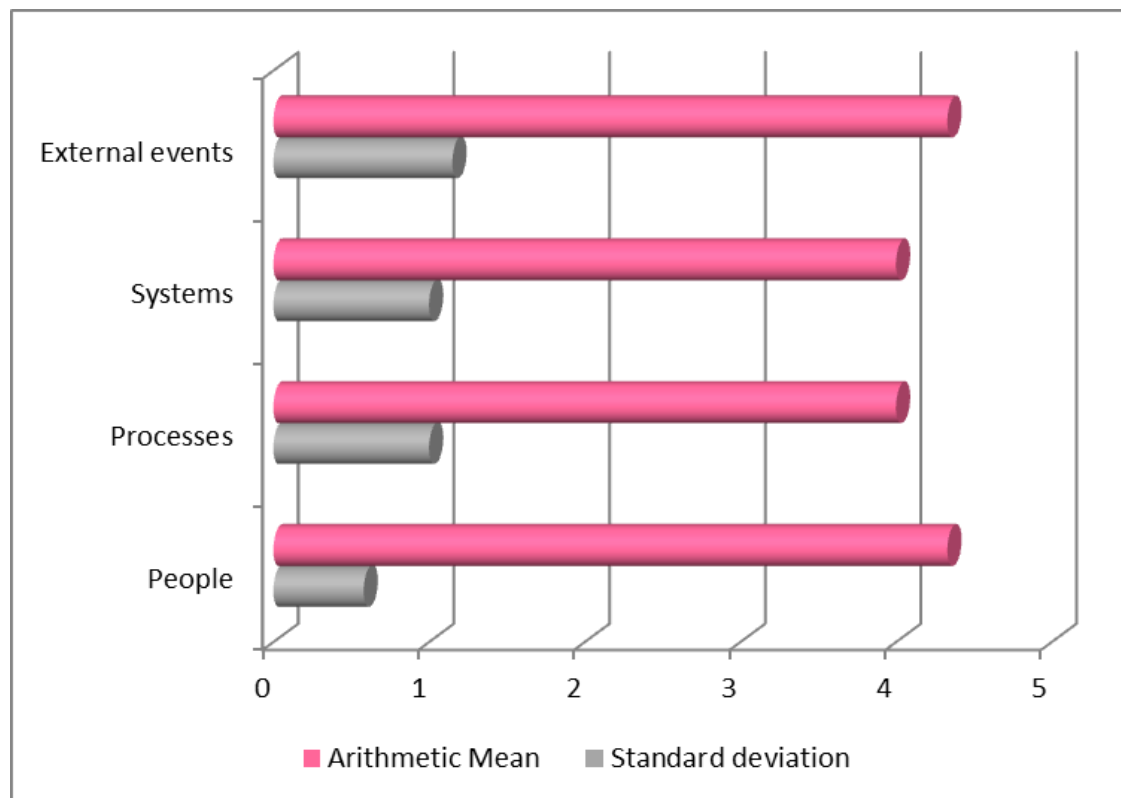
5.7.3.2 Primary operational risk factors

Table 5.3 indicates the responses received on the importance of operational risk factors in their organisation.

Table 5.3: Primary operational risk factors

	Arithmetic mean	Standard deviation
People	4.33	0.58
Processes	4	1
Systems	4	1
External events	4.33	1.15

Figure 5.4: Primary operational risk factors



From Table 5.3 the pilot study indicates that people can be regarded as a primary operational risk factor, with an arithmetic mean of 4.33 and a standard deviation of 0.58. This is a possible indication that people risk is regarded as the most important

primary operational risk factor. The standard deviation of people as a primary operational risk factor is the lowest when comparing it to the other options that were provided in the questionnaire.

Processes and systems each have an arithmetic mean of four and a standard deviation of one, which potentially indicates that they are regarded as important primary risk factors, albeit not as important as people. This indicates that processes and systems can be regarded as factors that contribute greatly to operational risks.

External events can be regarded as the least important operational risk factors, with an arithmetic mean of 4.33 and a standard deviation of 1.15. This might indicate that people, processes and systems are all regarded as more important contributors to operational risk. Although, as mentioned, an arithmetic mean of between four and five and a standard deviation of equal or lower than 1.15 regard the indicators as being very important, external events in this context is regarded as the least important.

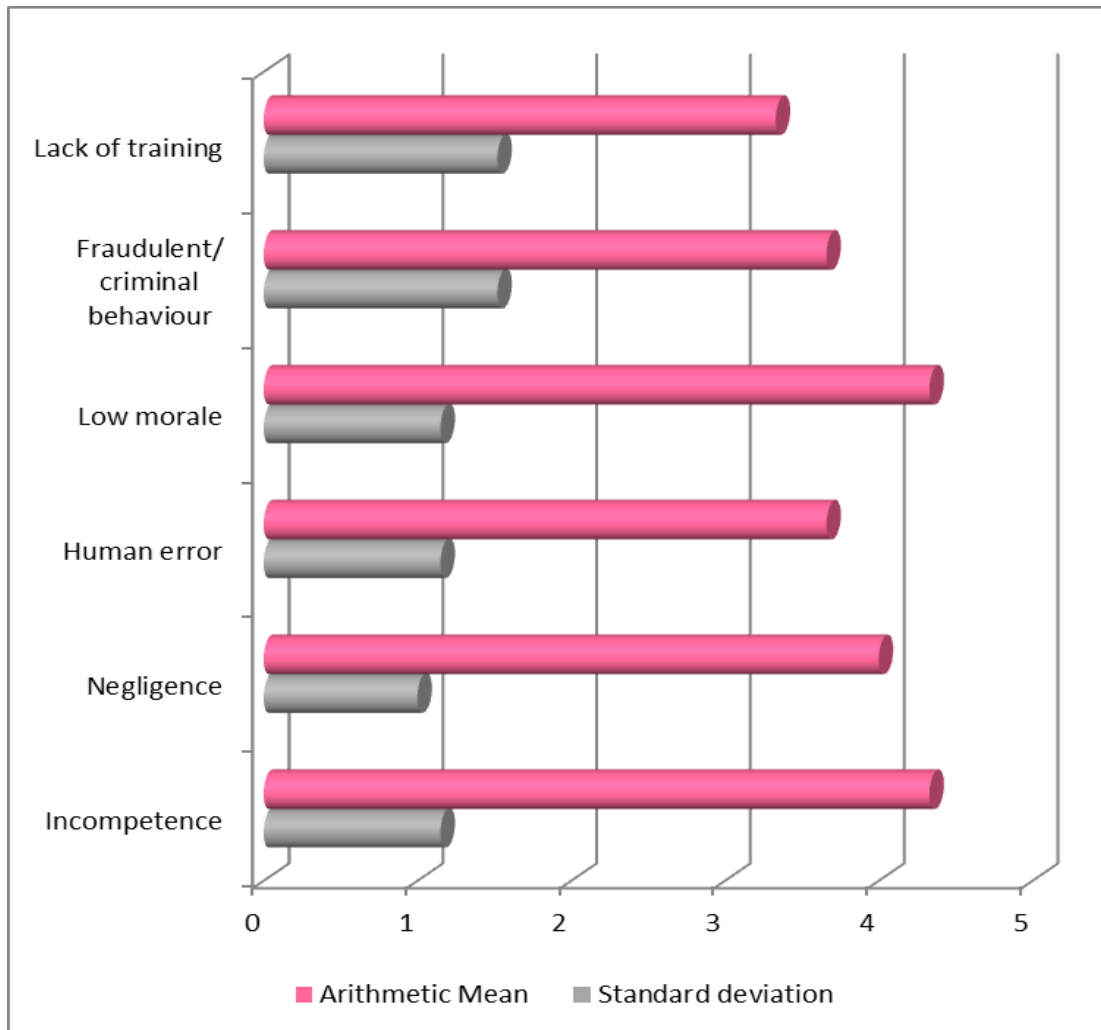
5.7.3.3 People exposures as part of operational risk

Table 5.4 indicates the level of importance to which each respondent has recognised people exposures as a significant part of operational risk.

Table 5.4: People exposures as part of operational risk

	Arithmetic mean	Standard deviation
Incompetence	4.33	1.15
Negligence	4	1
Human error	3.66	1.15
Low morale	4.33	1.15
Fraudulent/criminal behaviour	3.66	1.52
Lack of training	3.33	1.52

Figure 5.5: People exposures as part of operational risk



As indicated in Table 5.4, incompetence and low morale each have an arithmetic mean of 4.33 and a standard deviation of 1.15. This indicates that incompetence and low morale is possibly regarded as a very important part of people risk contributing to operational risk.

Negligence has an arithmetic mean of four and a standard deviation of one, which indicates that it can also be regarded as a very important part of people risk contributing to operational risk. It can be argued that negligence, incompetence and low morale might be regarded as being equally important when considering that although the arithmetic mean of incompetence and low morale is higher at 4.33, the standard deviation is higher at 1.15 and that although the arithmetic mean for negligence is lower at four, the standard deviation is also lower at one.

Human error has an arithmetic mean of 3.66 and a standard deviation of 1.15. This indicates that human error cannot be regarded as such an important part of people risk contributing to operational risk. As mentioned an arithmetic mean of between four and five would have indicated that human error can be regarded as an important part of people risk, however the arithmetic mean fell just below four so it can be regarded as moderately important.

Both fraud/criminal behaviour and lack of training have an arithmetic mean of 3.66 and a standard deviation of 1.52. This possibly indicates that fraud/criminal behaviour and lack of training is regarded as the least important part of people risk, which contributes to operational risk. Both the arithmetic mean and the standard deviation fall outside the set parameters, which indicate the importance of the indicator.

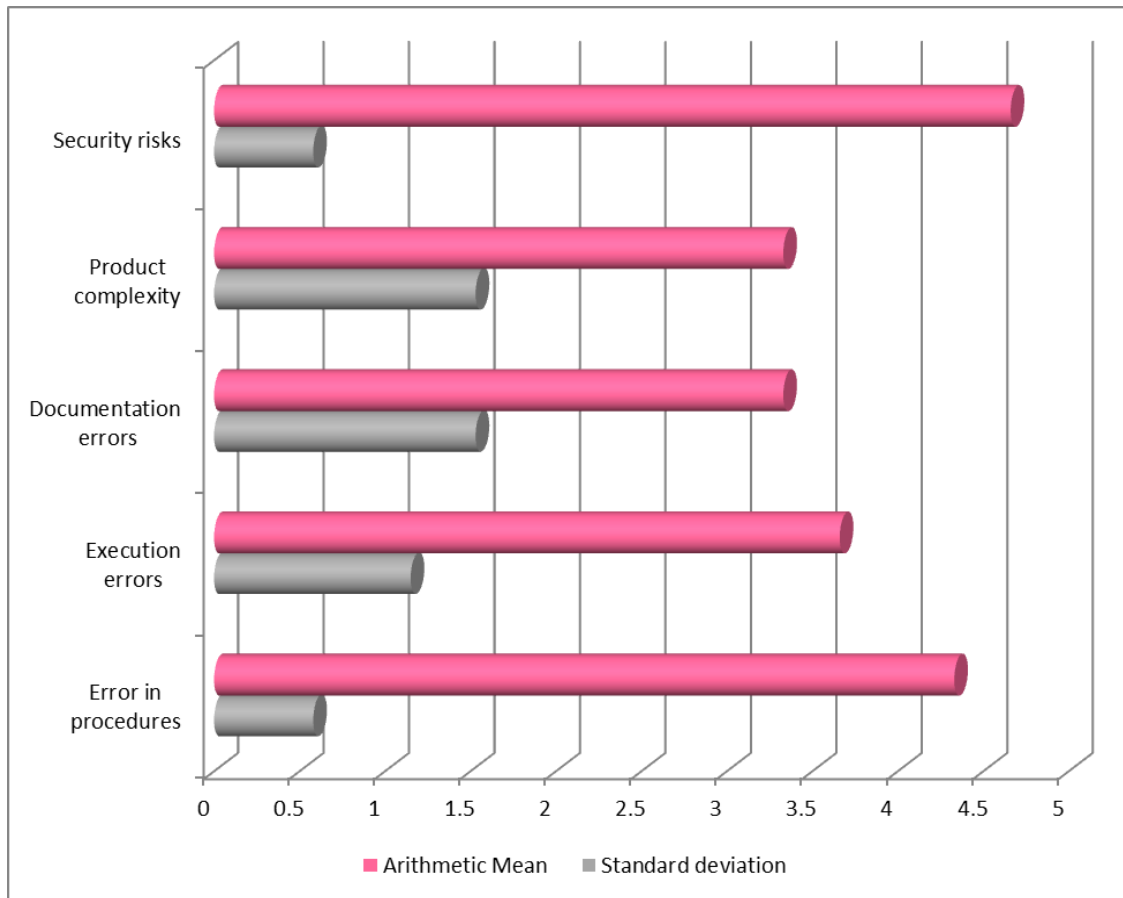
5.7.3.4 Process exposures as part of operational risk

Table 5.5 indicates the importance to which each respondent has recognised process exposures as an important part of operational risk.

Table 5.5: Process exposures as part of operational risk

	Arithmetic mean	Standard deviation
Error in procedures	4.33	0.58
Execution errors	3.66	1.15
Documentation errors	3.33	1.53
Product complexity	3.33	1.53
Security risks	4.66	0.58

Figure 5.6: Process exposures as part of operational risk



It is evident from Table 5.5 that errors in procedures are regarded by the participants as the most important form of exposures, which form part of operational risk. The arithmetic mean for errors in procedures was 4.33 with a standard deviation of 0.58. This is an indication that errors in procedures can be regarded as the second most important exposure contributing to operational risk, given the options provided in the questionnaire.

As depicted in Table 5.5, execution errors have an arithmetic mean of 3.66 and a standard deviation of 1.15, which indicates that execution errors as part of processes, which contribute to operational risk might be less important than errors in procedures as well as security risks.

Both documentation errors and product complexity have an arithmetic mean of 3.66 and a standard deviation of 1.53. This indicates that both these processes, which form

part of operational risk might be the least important, given the options which provided in the questionnaire.

According to Table 5.5, security risk can be seen as the most important part of processes that form part of operational risk. Security risk has an arithmetic mean of 4.66 and a standard deviation of 0.58. This indicates that the sample participants view security risk as the process that contributes the most to operational risk.

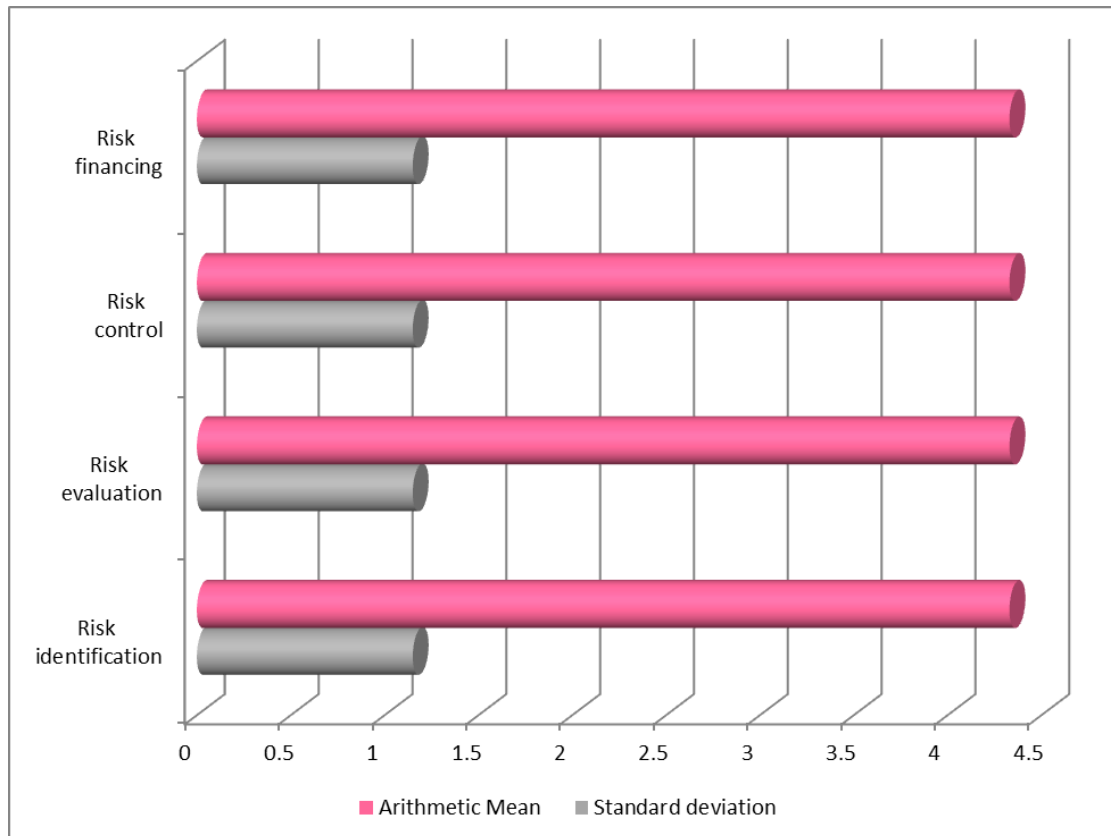
5.7.3.5 Important elements of the operational risk management process

Table 5.6 indicates the importance to which each respondent has identified certain elements, which they see as important elements in the operational risk management process.

Table 5.6: Important elements of the operational risk management process

	Arithmetic mean	Standard deviation
Risk identification	4.33	1.15
Risk evaluation	4.33	1.15
Risk control	4.33	1.15
Risk financing	4.33	1.15

Figure 5.7: Important elements of the operational risk management process



It is evident from Table 5.6 that the respondents view risk identification, evaluation, control and financing as equally important. All elements have an arithmetic mean of 4.33 and a standard deviation of 1.15. This indicates that risk identification, risk evaluation, risk control and risk financing can all be regarded as, not only equally important, but also as very important individual elements in the operational risk management process.

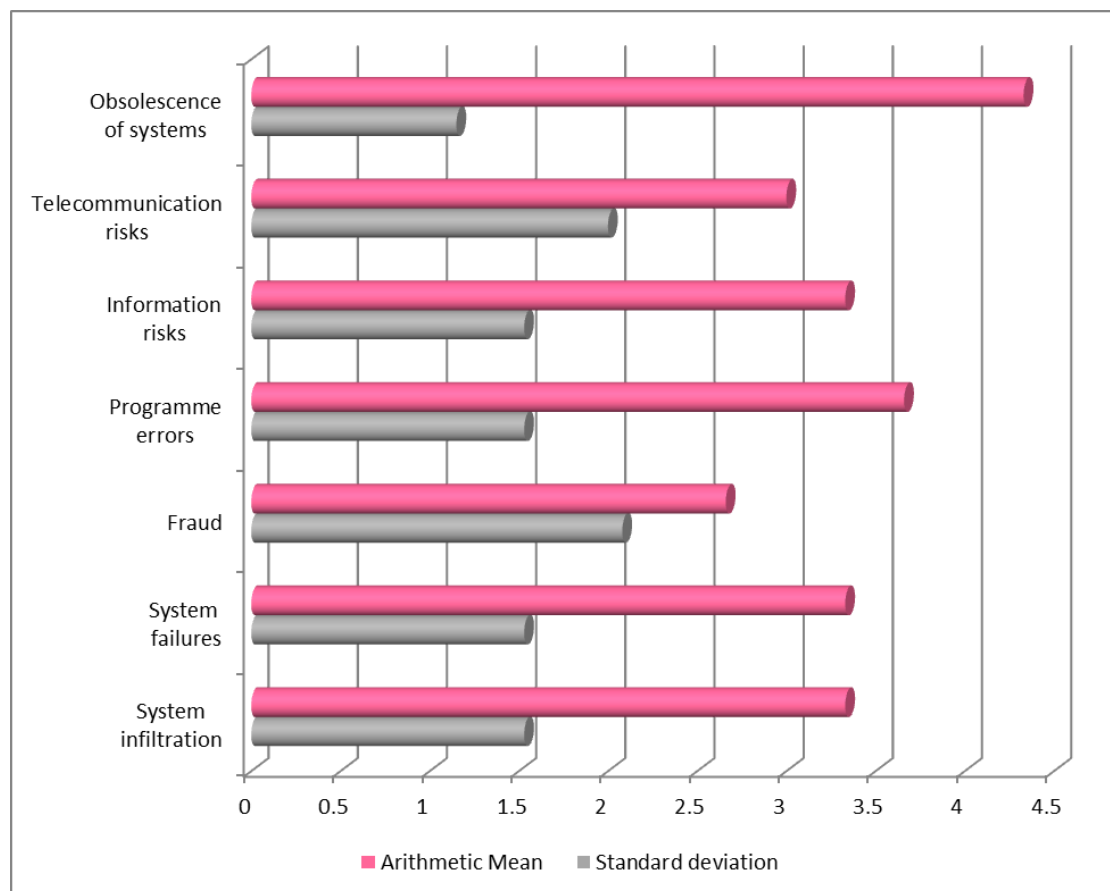
5.7.3.6 System exposures as part of operational risk

Table 5.7 indicates the importance to which each respondent has recognised system exposures as an important part of operational risk.

Table 5.7: System exposures as part of operational risk

	Arithmetic mean	Standard deviation
System infiltration	3.33	1.53
System failures	3.33	1.53
Fraud	2.66	2.08
Programme errors	3.66	1.53
Information risks	3.33	1.53
Telecommunication risks	3	2
Obsolescence of systems	4.33	1.15

Figure 5.8: System exposures as part of operational risk



As indicated in Table 5.6, system infiltration, system failures and information risks all received an arithmetic mean of 3.33 and a standard deviation of 1.53, which indicate

that all these risks, as part of system exposures that contribute to operational risk, are not regarded by the sample participants as very important. All three of these risks fall outside the parameters set in order to determine the importance of the risks.

It is evident from Table 5.6 that fraud can be regarded as the least important system risk that contributes to operational risk. Fraud has an arithmetic mean of 2.66 and a standard deviation of 2.08.

Table 5.6 indicates an arithmetic mean of 3.66 and a standard deviation of 1.53 for programme errors. This indicates that although the standard deviation is the same for information risk, system failures and system infiltration, the arithmetic mean is different and therefore, this risk can be regarded as slightly more important than the aforementioned. Keeping this in mind, these risks are not regarded as highly important contributors toward operational risk by the sample study.

With an arithmetic mean of three and a standard deviation of two, telecommunication risks can be regarded as the second least important contributor towards system risk, as part of operational risk. Telecommunication risks can be regarded as slightly more important than fraud, however, less important than programme errors.

Obsolescence risk has an arithmetic mean of 4.33 and a standard deviation of 1.15, this indicates that not only can this system risk be regarded as very important but also as the most important risk, given the options provided in the questionnaire.

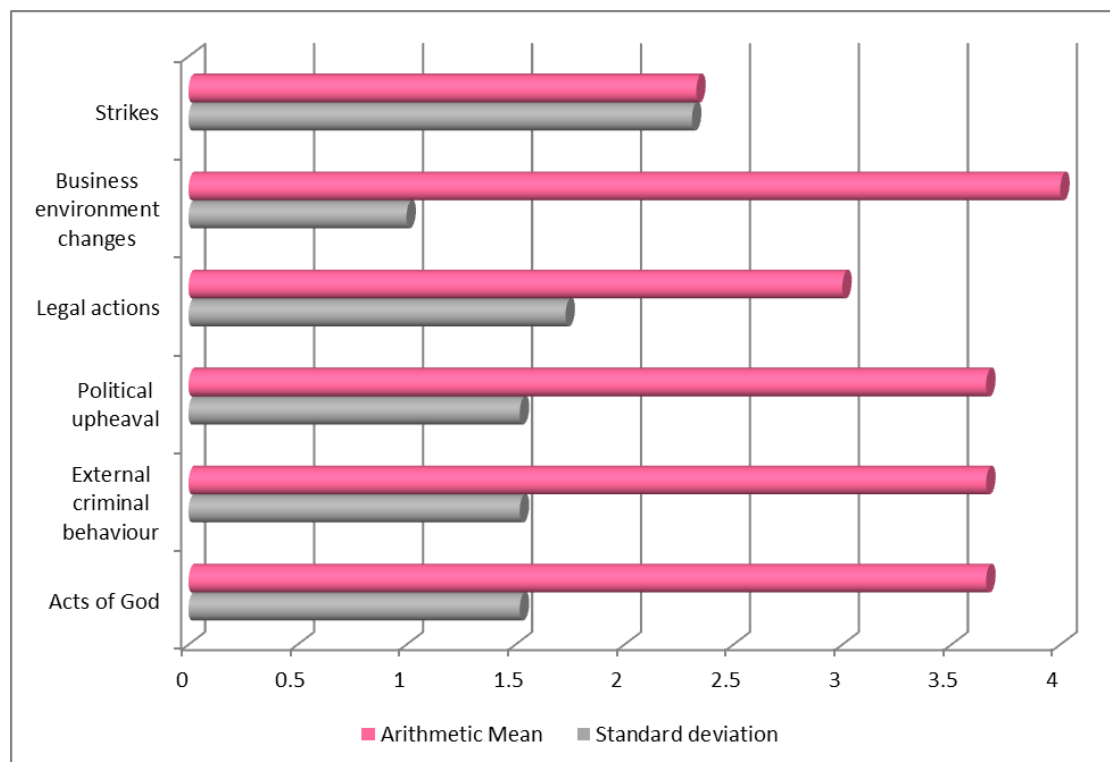
5.7.3.7 External exposures as part of operational risk

Table 5.8 indicates the importance to which each respondent has recognised external exposures as an essential part of operational risk.

Table 5.8: External exposures as part of operational risk

	Arithmetic mean	Standard deviation
Acts of God	3.66	1.52
External criminal behaviour	3.66	1.52
Political upheaval	3.66	1.52
Legal actions	3	1.73
Business environment changes	4	1
Strikes	2.33	2.31

Figure 5.9: External exposures as part of operational risk



Acts of God, external criminal behaviour and political upheaval have an arithmetic mean of 3.66 and a standard deviation of 1.52. This is an indication that none of these three risks are regarded as very important by the sample participants. Both the arithmetic mean and the standard deviation fall outside the parameters set in Section 5.6.2.1

As indicated in Table 5.7, legal actions as an external risk type have an arithmetic mean of three and a standard deviation of 1.73. This indicates that legal actions might possibly not be regarded as a very important external event, which contributes to operational risk. Both the arithmetic mean and the standard deviation fall outside the parameters set in Section 5.6.2.1

Business environment changes have an arithmetic mean of four and a standard deviation of one. This is an indication that the sample participants regard this external event risk as not only very important, but as the most important type of external risk, given the options provided in the questionnaire.

With an arithmetic mean of 2.33 and a standard deviation of 2.31, strikes can be regarded as the least important type which contributes to operational risk. The large standard deviation is an indication that all the participants did not agree on the answer, in other words in some institutions strikes might be regarded as an important part of operational risk, while others might regard it as unimportant.

5.7.3.8 Implementation of risk identification as an on-going process

The respondents were asked the question of how important they view the implementation of risk identification as an on-going process. The question received an arithmetic mean of 4.33 and a standard deviation of 1.15. This indicates that the respondents view the implementation of a risk identification process as very important when considering the arithmetic mean and standard deviation fall inside the parameters, which were set in Section 5.6.2.1 that states an arithmetic mean between four and five and a standard deviation below 1.5 indicate the factors are considered to be of high importance.

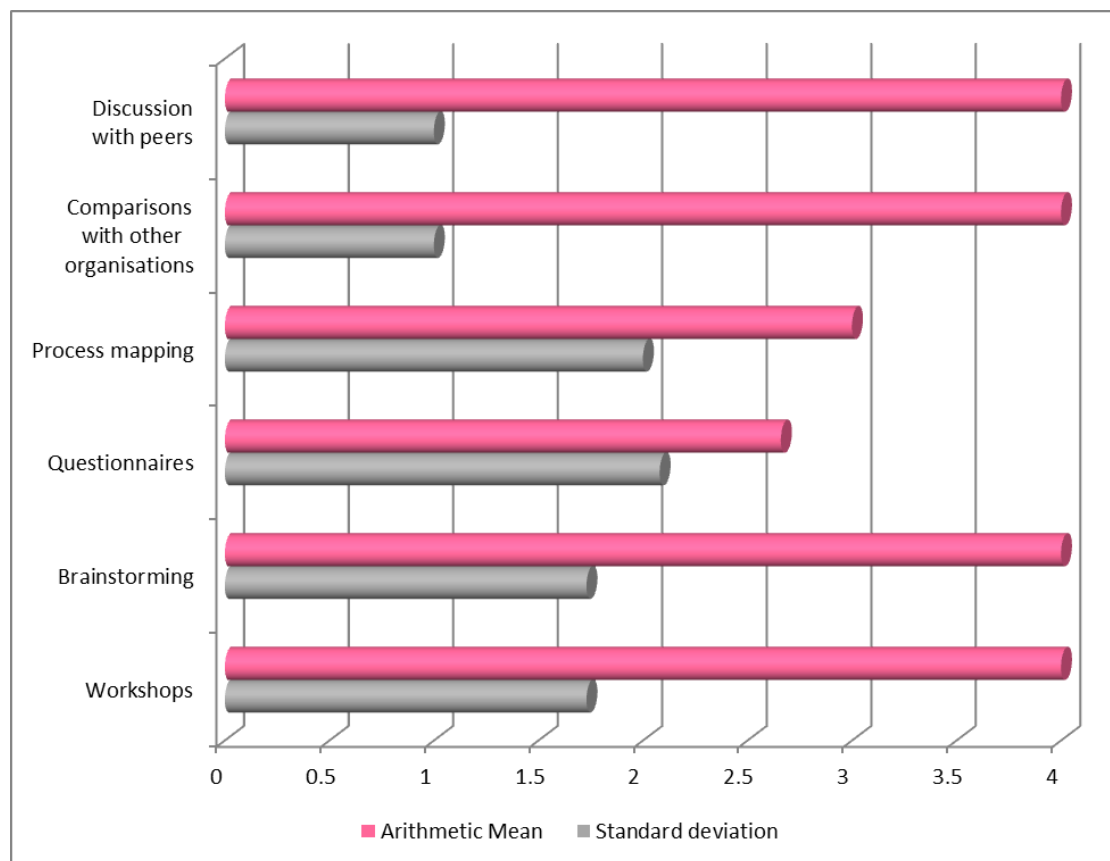
5.7.3.9 Methods to identify various types of risks

Table 5.9 indicates the importance of certain methods in order to identify various risk types.

Table 5.9: Methods to identify various types of risks

	Arithmetic mean	Standard deviation
Workshops	4	1.73
Brainstorming	4	1.73
Questionnaires	2.66	2.08
Process mapping	3	2
Comparisons with other organisations	4	1
Discussion with peers	4	1

Figure 5.10: Methods to identify various types of risks



As indicated in Table 5.9, workshops and brainstorming both have an arithmetic mean of four and standard deviation of 1.73. Although the arithmetic mean is high, the standard deviation indicates that not all the participants viewed these methods as equally important. This indicates that some institutions might regard workshops and

brainstorming as very important, while in others they might be considered less important.

Questionnaires have an arithmetic mean of 2.66 and a standard deviation of 2.08. This indicates that questionnaires, as a method in identifying risks, can be regarded as being the least important. It can be concluded that questionnaires are not used that often in these institutions when they aim to identify certain types of risks.

Process mapping has an arithmetic mean of three and a standard deviation of two. This might indicate that even though process mapping is viewed as a less important method, it is used in identifying certain risk types.

Both the methods, comparisons with other organisations, and discussions with peers, as indicated in Table 5.9, might possibly be regarded as the most important methods when these institutions aim at identifying certain risk types. Both received an arithmetic mean of four and a standard deviation of one. This possibly indicates that this method is not only regarded as being the most important, given the options provided, but also as being very important overall, when identifying risk types.

5.7.3.10 Summary

Given that only a pilot study was conducted, none of the interpretations will be made conclusively. The statistical results are based on the responses from the three respondents who participated in the study, the results are not generalised to include all South African co-operative banks or South African co-operatives, due to the low response rate. This study will only indicate possible scenarios within co-operative banks and co-operatives.

From the above discussion it might be concluded that operational-, credit-, and liquidity risk is regarded as being very important primary risk types in savings and credit co-operatives and co-operative banks. Interest rate-, reputational-, and legal risk are regarded as less important primary risk types.

The most important primary risk factor was identified as possibly being people risk and external events. Negligence, low morale and incompetence were regarded as the most important part of people risk that contribute to operational risk, while business

environmental changes; acts of God, external criminal behaviour, and political upheaval were regarded as possible important parts of external events that contribute to operational risk.

Process risk and systems risk were also regarded as potentially important primary risk factors however, less important than people risk and external events. Errors in procedures and security risks were regarded as an important part of process risk that contribute to operational risk and obsolescence of risks, and programme errors were regarded as the most important part of systems risk which contribute to operational risk.

It was also found that discussions with other organisations, as well as discussions with peers, is possibly the most useful methods to identify various risk types. However, workshops and brainstorming sessions are also methods that these organisations might make use of.

The following section will provide the statistical results of how these organisations measure operational risk.

5.7.4 Results of questionnaire on operational risk measurement

The statistical results regarding operational risk measurement responses of the distributed questionnaires will be discussed in this section. The arithmetic mean and the standard deviation will be tabulated and depicted in graphs for the relevant questions. The remainder of the questions will also be discussed. As mentioned the questionnaire in English and Afrikaans as well as the accompanying cover letter can be found in Appendix A, B and C, respectively. An arithmetic mean between four and five and standard deviation below 1.5 are indications of a risk or indicator of very high importance.

Also as mentioned, the statistical results will not be used to generalise in order to include all South African co-operative banks or South African co-operatives due to the low response rate. The statistical results only represent the three participants who participated in this study. The interpretation of the data however does consider all South African co-operative banks and South African co-operatives, but does not explicitly state that all scenarios represented all institutions.

5.7.4.1 Qualitative methods for measuring operational risk

Table 5.10 indicates the importance of qualitative methods in each of the institutions.

Table 5.10: Qualitative methods for measuring operational risk

	Arithmetic mean	Standard deviation
Historical data	4.33	1.15
Self-risk assessment	4	1
Risk mapping	3	1

Figure 5.11: Qualitative methods for measuring operational risk

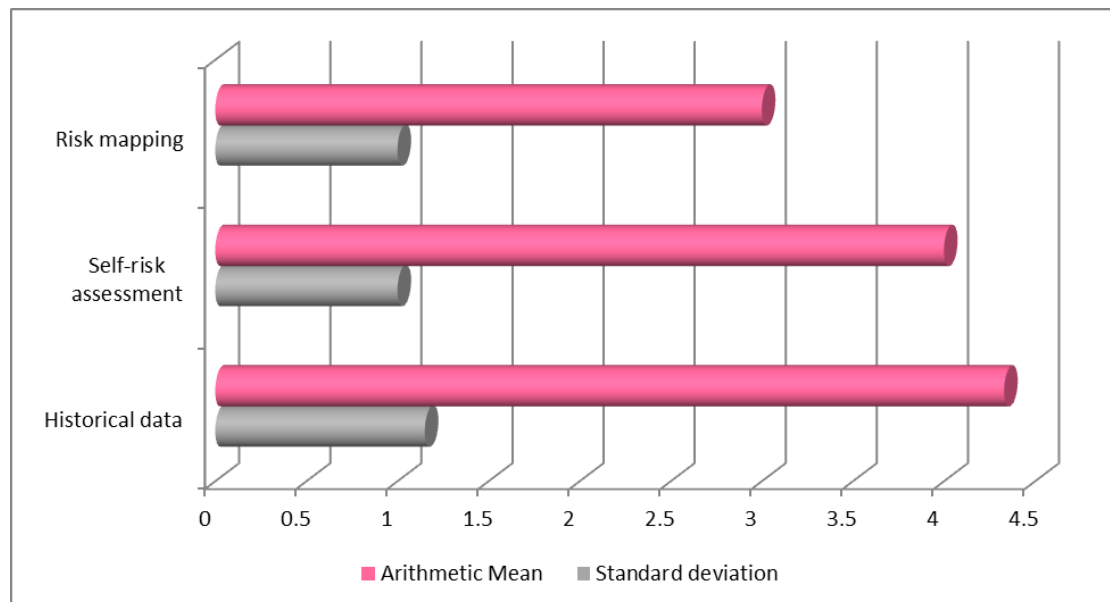


Table 5.11: Implementation of qualitative methods to measure operational risk

	Arithmetic mean	Standard deviation
Historical data	4	1
Self-risk assessment	4	1
Risk mapping	3	1

Figure 5.12: Implementation of qualitative methods to measure operational risk

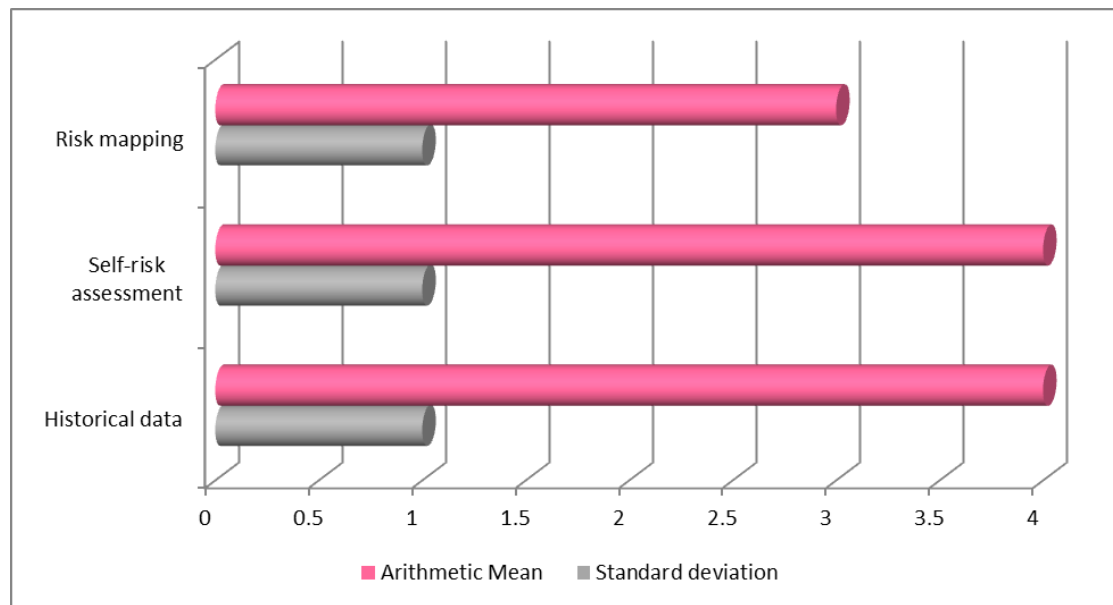


Table 5.10 indicates that historical data can be viewed as the second most important qualitative method currently used in these institutions. Historical data has an arithmetic mean of 4.33 and a standard deviation of 1.15. This shows that both the arithmetic mean and standard deviation indicate that historical data can be regarded as highly important. It is also evident that these institutions not only view this method as important, but they also implement it. With an arithmetic mean of four and a standard deviation of one (which is depicted in Table 5.11), it is evident that historical data, as a qualitative method to measure operational risk, is of very high importance.

Self-risk assessment has an arithmetic mean of four and a standard deviation of one. This is an indication that self-risk assessment is the most important qualitative method used when measuring operational risk. It can be concluded that when these institutions aim at measuring operational risk, they might prefer to make use of self-risk assessment techniques, above any other. The sample study also indicated the degree of implementation of self-risk assessment in their organisations. It received an arithmetic mean of four and a standard deviation of one, which is an indication that self-risk assessment is not only viewed as the most important, but they also implement this qualitative method to a great extent.

With an arithmetic mean of three and a standard deviation of one, risk mapping can be regarded as the least important qualitative method when measuring operational risk.

The low standard deviation indicates that most of the respondents viewed risk mapping as the least important qualitative method. The implementation of risk mapping, with an arithmetic mean of three and a standard deviation of one, was also regarded as the least important. This indicates that not only can risk mapping as a qualitative method be regarded as less important but its implementation as well.

5.7.4.2 Quantitative methods for measuring operational risk

Table 5.12 indicates the importance of quantitative methods when measuring operational risk.

Table 5.12: Quantitative methods for measuring operational risk

	Arithmetic mean	Standard deviation
Casual modelling	2.33	1.53
Risk indicators	3.33	0.58
Loss event database	2	1.73

Figure 5.13: Quantitative methods for measuring operational risk

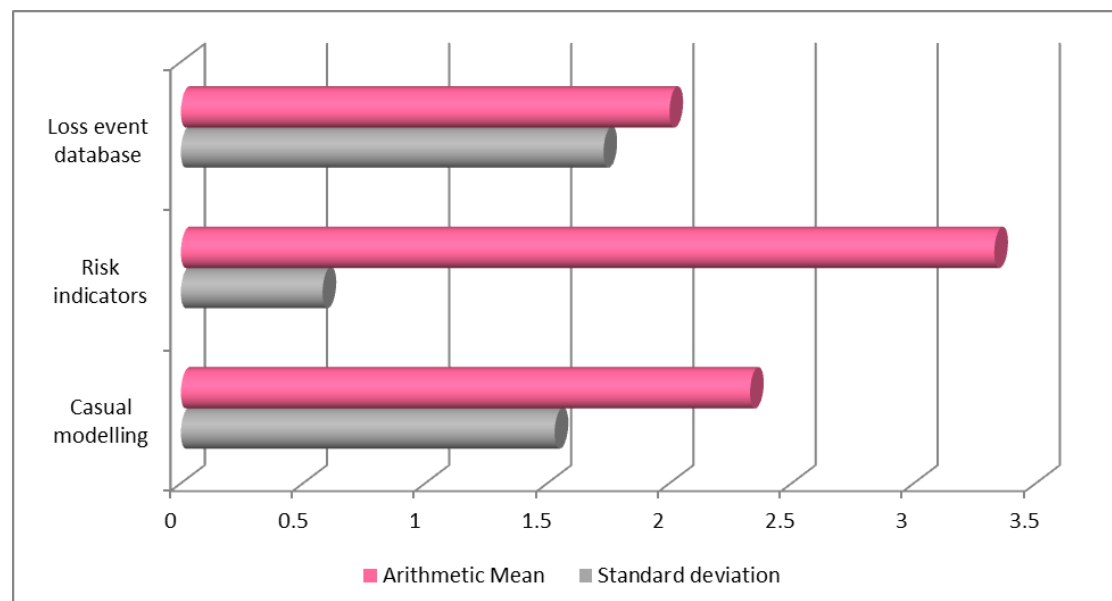
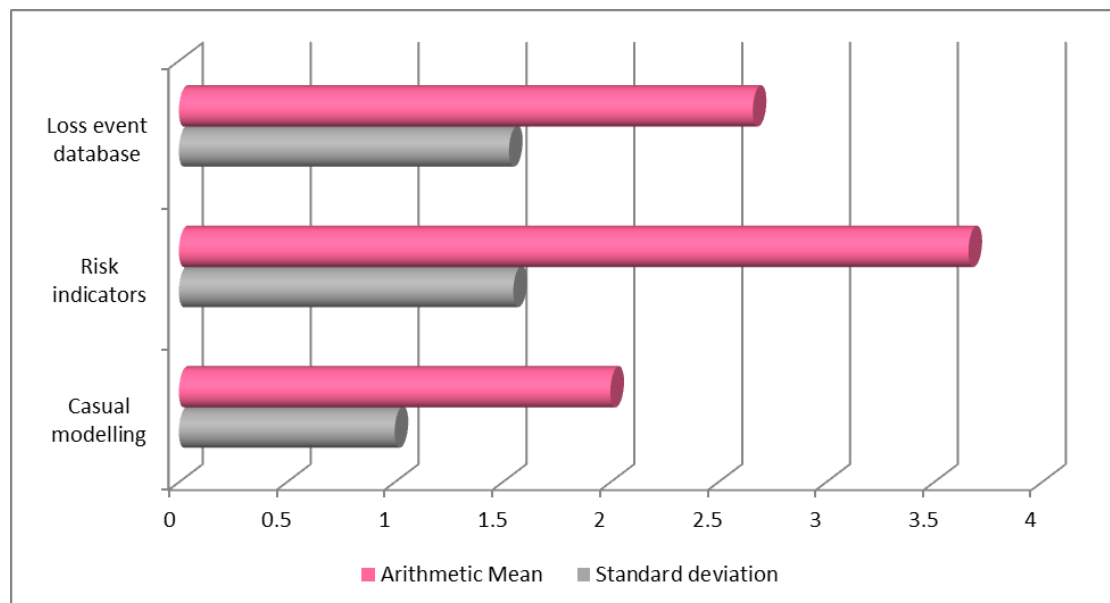


Table 5.13: Implementation of quantitative methods to measure operational risk

	Arithmetic mean	Standard deviation
Casual modelling	2	1
Risk indicators	3.66	1.55
Loss event database	2.66	1.53

Figure 5.14: Implementation of quantitative methods to measure operational risk



Casual modelling has an arithmetic mean of 2.33 and a standard deviation of 1.53. This indicates that casual modelling can be regarded as less important than risk indicators; however, neither of the quantitative methods was regarded as being very important. This indicates that these institutions might not make much use or find quantitative methods as very useful. The sample study also indicated that implementation of casual modelling methods is of low importance, with an arithmetic mean of two and a standard deviation of one, which can be viewed in Table 5.13.

With an arithmetic mean of 3.33 and a standard deviation of 0.58, it is evident that risk indicators can be regarded as the most important quantitative method when measuring operational risk, given the options provided in the questionnaire.

Implementation of risk indicators received an arithmetic mean of 3.66 and a standard deviation of 1.55. This indicates that implementation can be regarded by some as not important at all, while others may have deviated from this, given the standard deviation.

With an arithmetic mean of two and a standard deviation of 1.73, loss event database methods can be regarded as the least important quantitative method, given the options provided in the questionnaire. From Table 5.13 it is also evident that implementation of loss event database methods might be regarded as less important than risk indicators, however it is seen as more important than casual modelling methods.

5.7.4.3 Summary

As mentioned, the statistical results are not representative of all South African co-operative banks or South African co-operatives, due to the low response rate. The pilot study conducted only provides an indication of possible scenarios within these institutions. It cannot be conclusively stated that all scenarios are present in all relevant South African institutions.

Using historical data as a qualitative measuring technique was found to be the most popular among the sample participants. Historical data was closely followed by self-risk assessment and risk mapping techniques respectively. It was also found that the implementation of these techniques was rated in the same manner as their popularity.

With regard to quantitative techniques, it was found that all proposed techniques were rated as being relatively unimportant, none of which scored a mean higher than 3.5. Risk indicators was rated as the most popular, as was the implementation thereof. Casual modelling was rated as being the second most important; however, the implementation of this technique was rated as being the least important. Loss event database as a quantitative technique, was seen as the least important; however, the implementation thereof, received the second highest rating.

It was also found that only one participant measures and documents the impact of operational risk with the use of quantitative- and qualitative techniques, and none of the participants have a database for operational risk.

The following section provides the statistical interpretation of the response to how these institutions currently control operational risk.

5.7.5 Results of questionnaire on operational risk control

The statistical results of this section are not representative of all South African co-operative banks or South African co-operatives due to the low response rate. The study conducted will only provide an indication of possible scenarios within these institutions.

The statistical results of operational risk control of the distributed questionnaires will be discussed in this section. The arithmetic mean and the standard deviation will be tabulated and depicted in graphs for the relevant questions. The remainder of the questions will also be discussed. An arithmetic mean between four and five and standard deviation below 1.5, is an indication of a risk or indicator of very high importance.

5.7.5.1 Control measures for operational risk

Table 5.14 indicates the importance of control measures of operational risk for the sample study.

Table 5.14: Control measures for operational risk

	Arithmetic mean	Standard deviation
Policy and procedures	4.66	0.58
Internal controls	4.66	0.58
Risk reporting	4.66	0.58

Figure 5.15: Control measures for operational risk

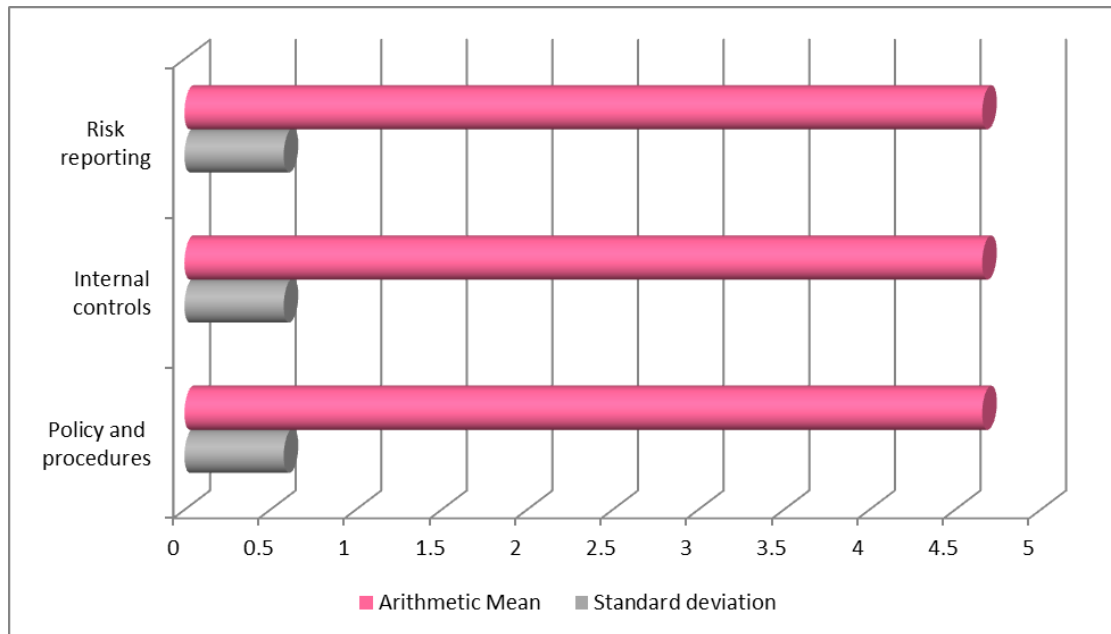
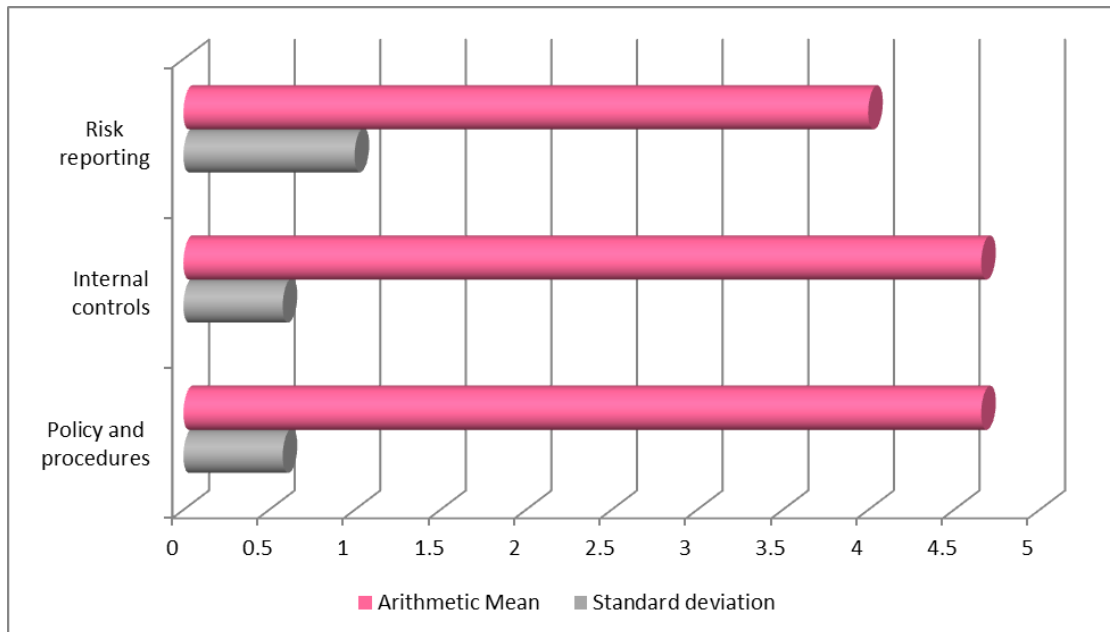


Table 5.15: Implementation of control measures for operational risk

	Arithmetic mean	Standard deviation
Policy and procedures	4.66	0.58
Internal controls	4.66	0.58
Risk reporting	4	1

Figure 5.16: Implementation of control measures for operational risk



From Table 5.14, it is evident that all respondents view policy and procedures, internal controls, and risk reporting as equally important. All measures have an arithmetic mean of 4.66 and a standard deviation of 0.58. This indicates that the sample participants viewed these measures as extremely important. The sample study also indicated the importance of implementing each of the above-mentioned controls. Policy and procedures, and internal controls both received an arithmetic mean of 4.66 and a standard deviation of 0.58, which indicates that not only do the participants view policy and procedures and internal controls as very important, but the implementation of these control measures are also of high importance to these organisations. The implementation of risk reporting received an arithmetic mean of four and a standard deviation of one from the sample participants. This indicates that although risk reporting is viewed as equally important to policy and procedures and internal controls, they do not view the implementation of this control measure to be as important. The importance of implementation is indicated in Table 5.15 above.

5.7.5.2 Summary

It was found that all control measures proposed in the questionnaire were rated as equally important; the control measures include policy and procedures, internal controls and risk reporting. It was also found that the implementation of policy and

procedures and internal controls were rated as being equally important; however, the implementation of risk reporting was rated as being slightly less important.

As mentioned, the interpretation of the statistical results does not represent all South African co-operative banks or South African co-operatives. The interpretation provides an indication of possible scenarios within these institutions.

The following section provides the statistical results of how the sample participants responded to the questions asked on how they currently manage operational risk.

5.7.6 Results of questionnaire on operational risk management

The results of the questionnaire on operational risk management which will subsequently be discussed is not generalised to represent all South African co-operative banks or South African co-operatives. Due to the low response rate, only an indication of possible scenarios will be discussed and no distinct conclusion will be drawn.

The statistical results of operational risk management of the distributed questionnaires will be discussed in this section. The arithmetic mean and the standard deviation will be discussed; however, no tables or graphs will be provided in this section. As mentioned, the questionnaire in English and Afrikaans as well as the accompanying cover letter can be found in Appendix A, B and C, respectively. An arithmetic mean between four and five and standard deviation below 1.5 is an indication of a risk or indicator of very high importance.

5.7.6.1 Operational risk management

The degree of employee competency received an arithmetic mean of 3.66 and a standard deviation of 0.58. The sample study also indicated how they viewed the Board of Directors' responsibility toward operational risk management, with an arithmetic mean of 4.33 and a standard deviation of 1.15. From this, it can possibly be concluded that overall, the competency of employees who are involved in the risk management process fall short of the expected response and that it seems the overall view is that the Board of Directors is responsible for the risk management process.

The sample study was also posed the question of the structure of their operational risk management process. The sample study responded to the question of the importance of implementation of a formal risk management process. This question received an arithmetic mean of 2.33 and a standard deviation of 1.15. This indicates that none of the participants viewed implementation of a formal risk management process as important.

However, upon analysing the results of the importance of an operational risk management process as an integral part of the overall management process, which received an arithmetic mean of 4.33 and a standard deviation of 1.15, it was found that although the participants do not view the implementation of a formal risk management process as important, they do however, view an operational risk management process to be a very important part of the overall management process. It might also be concluded from the responses that establishing a separate operational risk management process was regarded as not very important. This question received an arithmetic mean of 2.33 and a standard deviation of 2.31. This possibly indicates that some of the sample participants thought this to be very important, while others regarded it as low priority.

From the above explanation, it might be concluded that establishing a formal risk management process and a separate operational risk management process is regarded as low priority, while the sample study still viewed the existing risk management process to be a very important part of the overall management process. The sample study also indicated that it is the responsibility of the Board of Directors to oversee the operational risk management process.

The sample study indicated that none of them captures operational risk events and near misses in day-to-day management practices. However, there was an indication that certain standards are applied for operational risk management, and that there are information technology tools in place for operational risk management; these tools include Pastel and banking systems.

There was also an indication that there are structures in place for operational risk management improvement, which include informal discussions, brainstorming sessions, self-assessment and self-assessment workshops.

The following section provides the statistical interpretation of the responses on the questions posed regarding the implementation of Basel II.

5.7.7 Basel II implementation for operational risk

Based on the information gathered from the questionnaire, there is a strong possibility that the current knowledge of Basel II is very limited within these institutions, with an arithmetic mean of 1.33 and a standard deviation of 0.58. This is an indication that all respondents view the current knowledge of their employees regarding Basel II as close to non-existent.

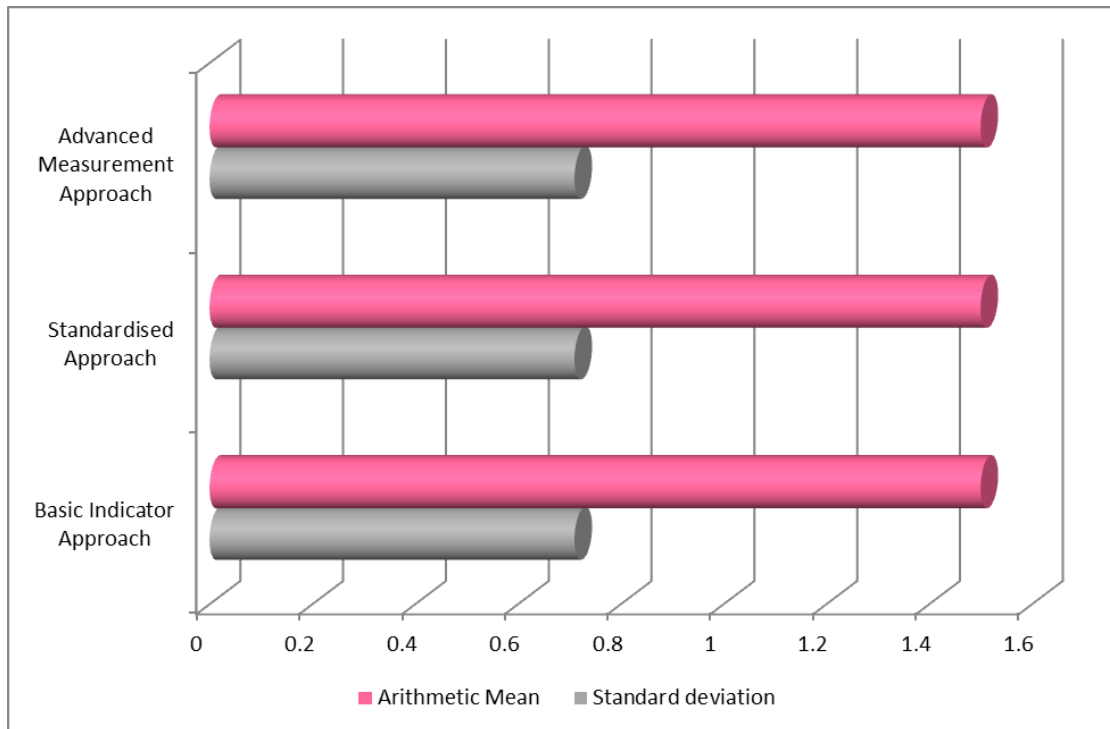
This finding poses a major problem, especially since as discussed in previous chapters this study aims at implementing a measurement process, which should be based on Basel II's Basic Indicator Approach. Implementing a measurement process will prove to be a difficult task, especially if none of the employees have any knowledge regarding Basel II.

The sample study also indicated that they do not consider implementing Basel II as highly important. This question received an arithmetic mean of 2.66 and a standard deviation of 2.08. The sample study also indicated the importance of evaluating the Basel II approaches which assess capital for operational risk (shown in Table 5.16 below). The Basic Indicator Approach, the Standardised Approach and the Advanced Measurement Approach all received an arithmetic mean of 1.15 and a standard deviation of 0.71, with one respondent being unsure. This indicates that most participants view the evaluation process of these three approaches as unimportant. Again, this proves to be of concern, since it was concluded in Chapter 4 that in measuring and managing operational risk, South African co-operative banks should at least follow the Basic Indicator Approach proposed by the Basel II Accord.

Table 5.16: Basel II approaches to assess capital for operational risk

	Arithmetic mean	Standard deviation
Basic Indicator Approach	1.5	0.71
Standardised Approach	1.5	0.71
Advanced Measurement Approach	1.5	0.71

Figure 5.17: Basel II approaches to assess capital for operational risk



The sample study was also asked to indicate how they viewed the implementation and possible disadvantages of Basel II. The responses were varied, with some arguing the implementation would result in more problems than advantages, and others indicating it would be an opportunity to improve the risk management process. It was also found that the sample study felt implementing Basel II would result in higher capital requirements, and high personnel training and information system development costs. They also indicated that a lack of personnel could prove to be problematic.

The importance of regulatory capital allocation, proposed by the Basel Committee, and the degree to which each organisation has been involved in determining a regulatory capital allocation for operational risk, was also indicated. The two questions received arithmetic means of 4.33 and three and standard deviations of 1.15 and two respectively. This could possibly indicate that although the institutions viewed the implementation of Basel II as unimportant, they do consider the proposed regulatory capital allocation by the Basel Committee as highly important. It was also indicated that the sample study is currently involved in determining a regulatory capital allocation for operational risk.

From the above discussion, there is a strong possibility that the current knowledge, within these institutions, regarding Basel II is extremely limited. Implementation of Basel II might also be regarded as unimportant; however, making use of the proposed regulatory capital allocation proposed by the Basel Committee might be considered very important. It can be concluded that although most of the sample study are of the opinion that implementing Basel II will only result in more problems than advantages; they still used Basel as a benchmark when determining a regulatory capital allocation for operational risk.

5.8 CONCLUSION

The aim of this chapter was to provide information regarding the current methods used by savings and credit co-operatives and co-operative banks in order to measure and manage operational risk. As mentioned, seven questionnaires were distributed, and responses were received from three of the sample participants.

Throughout this chapter reference was made to the fact that only a pilot study was conducted, which was due to the low response rate. This restricted the study from drawing definite conclusions which would have represented all South African co-operative banks as well as all South African co-operatives.

The conclusions made in this chapter will refer back to the feedback received from the three participants. These results cannot be conclusively applied to all South African co-operative banks or co-operatives, however the feedback received from the three willing participants will provide an indication as to possible scenarios within these institutions.

In Section 5.6.2 – operational risk identification – it was found that operational-, credit-, and liquidity risk are regarded as being the most important primary risk types in credit co-operatives and co-operative banks. Interest rate-, reputational-, and legal risk were regarded as less important primary risk types.

The most important primary risk factor was identified as people risk and external events. Negligence, low morale and incompetence were regarded as the most important part of people risk that contribute to operational risk, while business environmental changes, acts of God, external criminal behaviour, and political

upheaval were regarded as an important part of external events that contribute to operational risk.

Process risk and systems risk were also regarded as very important primary risk factors; however, less important than people risk and external events. Errors in procedures and security risks were regarded as an important part of process risk that contribute to operational risk, while obsolescence of risks and programme errors were regarded as the most important part of systems risk which contribute to operational risk.

It was also found that discussions with other organisations as well as discussions with peers proved to be the most useful method in identifying various risk types; however, workshops and brainstorming sessions are also methods that these organisations make use of.

In Section 5.6.3 – operational risk measurement – it was found that historical data, as a qualitative measuring technique, was found to be the most popular. Historical data was closely followed by self-risk assessment and risk mapping techniques, respectively.

With regard to quantitative techniques it was found that all proposed techniques were rated as being relatively unimportant, none of which scored a mean higher than 3.5. Risk indicators was rated as the most popular, as was the implementation thereof. Casual modelling was rated as being the second most important; however, the implementation of this technique was rated as being the least important. Loss event database, as a quantitative technique, was seen as the least important; however, the implementation thereof received the second highest rating.

In Section 5.6.4 – operational risk control - it was found that all control measures proposed in the questionnaire were rated as equally important; the control measures include policy and procedures, internal controls and risk reporting. It was also found that the implementation of policy and procedures and internal controls were rated as being equally important; however, the implementation of risk reporting was rated as being slightly less important.

In Section 5.6.5 – operational risk management - it can be concluded that establishing a formal risk management process and a separate operational risk management process is regarded as low priority, while the sample study still viewed the existing risk management process to be a very important part of the overall management process. The sample study also indicated that it is the responsibility of the Board of Directors to oversee the operational risk management process.

From Section 5.6.6 – implementation of Basel II – it was found that the current knowledge regarding Basel II is extremely limited. Implementation of Basel II is also regarded as unimportant; however, making use of the proposed regulatory capital allocation proposed by the Basel Committee is considered very important. It can be concluded that although most of the sample study are of the opinion that implementing Basel II will only result in more problems than advantages, they still used Basel as a benchmark when determining a regulatory capital allocation for operational risk.

Of great importance is to note that although there was a response rate of only 42.8%, the response rate is still regarded as statistically significant because not only do the responses received represent the largest registered co-operative bank in South Africa as well as the largest Savings and Credit Co-operative, but also, given the small population, the responses are believed to be adequate.

Chapter 6 will provide a conclusion to this research study, with suggestions for further research opportunities to the study. This will entail a discussion on the research findings, including which future research can be conducted in order to improve the current methods in which co-operative banks in South Africa measure and manage operational risk.

CHAPTER 6

RECOMMENDATIONS AND SUMMARY

“If you don’t risk anything, you risk even more” (Jong, 1942).

6.1 INTRODUCTION

The primary objective of this study is to provide insight into the current manner in which South African co-operative banks measure and manage operational risk. The secondary objective of this study is to research the manner in which certain operational risk practices can be improved to better measure manage operational risk in South African co-operative banks.

In order to reach both the primary and secondary objectives of this study, a literature review was conducted and questionnaires were distributed to, among others, the largest registered co-operative bank in South Africa as well as the largest savings and credit co-operative.

Chapter 2 gave an important introduction as it provided insight into the different terminology definitions applicable to this study and discussed the vast differences that exist between commercial and co-operative banks. The origin of co-operative banks was investigated in certain selected countries, focussing on the manner in which co-operative banks function. In addition, the structure of the co-operative banking environment and the different types of co-operative banks which exist in South Africa, were explored. It was concluded that co-operative banks are very unique in nature and differ extensively from commercial banks. It was found that not all co-operative banks function in exactly the same manner. Although all co-operative banks are based on the same models, differences do exist between them, depending on the country in which they are situated. In addition, co-operative banks in South Africa are in the early stages of development, and are expanding rapidly; this study’s contribution to the South African co-operative banking sector should, therefore, not be underestimated.

The legislative and regulatory environments applicable to co-operative and commercial banks were investigated in Chapter 3 in order to determine if similar

legislation and regulations apply to both commercial and co-operative banks. This discussion included the primary legislation and regulatory environments relative to commercial and co-operative banks.

Exploring the specific nature of commercial banking regulatory environment highlighted the management of financial risks and the calculation of minimum capital requirements. It was found that the Basel II framework provides robust guidelines on operational risk, credit risk and market risk, market discipline and bank supervision, while the Basel III framework expands on the Basel II framework to include additional requirements in terms of, *inter alia*, cyclicity, liquidity and higher capital standards.

With regard to co-operative banking regulations and legislation, Chapter 3 concluded that although the rules make provision for certain prudential requirements, there is no specific provision made for operational risk. It was also found that the Basel II and Basel III requirements, although providing a basis for best practice in determining how operational risk should be measured and managed, are not applicable to co-operative banks due to the unsophisticated nature of co-operative banks, which was emphasised in Chapter 2. When comparing the co-operative banking regulations to the commercial banking regulations, it is evident that the commercial banking regulations are far more advanced and sophisticated than the co-operative banking regulations, which is to be expected.

Chapter 4 explored operational risk and consisted of discussions on the different definitions relating to operational risk, the different levels of operational risk, and the specific areas which an operational risk manager should be aware of when identifying operational risk sources. The Basel Committee's activities in establishing the Basel I, Basel II and Basel III recommendations were discussed, together with an overview of each of these accords. Specific attention was directed towards the Basel II Accord, as it addresses operational risk under the first pillar concerning minimum capital requirements. As the Basel II Accord makes provision for minimum capital requirements for market risk, credit risk and operational risk, those requirements applicable to operational risk were highlighted, with a discussion on the different methods used to calculate operational risk according to the Basel II Accord.

From Chapter 4 it was concluded that the majority of co-operative banks globally seek guidance from the Basel II proposals in measuring and managing operational risk. Although some exceptions exist, the tendency is to align with the Basel II Accord. It found that little literature regarding operational risk measurement and management in South African co-operative banks currently exists. Due to the limited literature on operational risk practices in South African co-operative banks, it was proposed that South African co-operative banks should at least follow the Basic Indicator Approach proposed by the Basel II Accord when measuring and managing operational risk.

Chapter 5 directed specific focus on researching the current methods used in measuring and managing operational risk in South African co-operative banks. Questionnaires were distributed to specific savings and credit co-operatives and co-operative banks. The questionnaire was divided into five categories addressing operational risk identification, operational risk measurement, operational risk control, operational risk management, and lastly, Basel II implementation for operational risk. The information gathered from the questionnaire was analysed and interpreted.

From the analysis of the operational risk identification category, the findings are summarised as follows:

- Operational -, credit-, and liquidity risk are the most important primary risk types
- The most important primary risk factors contributing to operational risk are people risk and external events
- Negligence, low morale and incompetence are regarded as the highest contribution toward people risk, while business environmental changes, acts of God, external criminal behaviour and political upheaval are seen as an important risk factor that contribute to operational risk.
- Errors in procedures and security risks are regarded as an important factor relating to process risk that contribute to operational risk, while obsolescence of risks and programme errors are regarded as an important factor which contribute to systems risk.

- With regard to the methods used in the identification of certain risk types, it was found that discussions with other organisations, as well as with peers, proved to be the most useful method; however, workshops and brainstorming sessions are also utilised.

The second section of the questionnaire provided information regarding the current methods used in operational risk measurement. The analysis of the operational risk measurement category resulted in the following summary of findings:

- Historical data as a qualitative measuring technique is the most popular among the sample study, followed by self-risk assessment and risk mapping techniques, respectively
- A selection of proposed quantitative techniques to be used in operational risk measurement are seen by the respondents as being equally unimportant
- Risk indicator and its implementation was rated as the most popular technique, followed by causal modelling.
- A loss event database as a quantitative technique was viewed by the sample study as the least important. However, the implementation thereof received the second highest rating. Causal

Section three of the questionnaire provided information regarding the current operational risk control methods used by the sample study. The analysis of the operational risk control category resulted in the following summarised findings:

- All control measures proposed in the questionnaire (policy and procedures, internal controls and risk reporting) were rated as equally important.
- The implementation of policy and procedures, and internal controls, were rated as being equally important; however, the implementation of risk reporting was viewed as slightly less significant.

The analysis of section four of the questionnaire yielded results pertaining to current operational risk management practices. It was concluded that the establishment of a formal risk management process and a separate operational risk management process

is of very low importance, while the existing risk management process is regarded to be a very important part of the overall management process. The sample study also indicated that it is the responsibility of the board of directors to oversee the operational risk management process.

The final section of the questionnaire set out to find information regarding the current view of savings and credit co-operative and co-operatives banks concerning the implementation of the Basel II recommendations. The analysis found that the current knowledge of the employees of savings and credit co-operatives and co-operative banks regarding Basel II is extremely limited. The implementation of Basel II in the respective organisations was regarded as very unimportant. The sample study was also of the opinion that implementing Basel II would yield more problems than advantages. Interesting though was the finding that making use of the proposed regulatory capital allocation proposed by the Basel Committee is considered to be very important. Although most of the sample study are of the opinion that implementing Basel II will only result in more problems than advantages, it can be concluded that they still used Basel as a benchmark when determining a regulatory capital allocation for operational risk.

6.2 LIMITATIONS OF STUDY

Throughout chapter five, specific emphasis was placed on the fact that only a pilot study was conducted due to the low response rate received from the distributed questionnaires. Although the largest South African co-operative bank as well as the largest South African co-operative participated in the study, the results could not be generalised to represent all South African co-operative banks.

Out of the seven identified candidates, only three participated in this study, this presented a significant problem, due to the fact that the data could not be generalised to present all relevant institutions. The results of the distributed questionnaires provided evidence of possible scenarios which may or may not be present within all South African co-operative banks as well as all South African co-operatives.

6.3 RECOMMENDATIONS

The following recommendations are made:

- In order for South African co-operative banks to develop into more sophisticated institutions, current knowledge of the implementation and implications of Basel II needs to be improved
- South African co-operative banks need to strive at implementing the Basic Indicator Approach proposed by Basel II, in order to measure operational risk
- The rules set out for co-operative banks need to make specific provision for operational risk measurement, considering co-operative banks are under no obligation to comply with Basel II
- In order for co-operative banks to become more sophisticated and the employees to become more literate regarding Basel II and the measurement and management of operational risk, the limited literature needs to be developed
- It is imperative that South African co-operative banks put a sound operational risk managing structure in place, which consists of operational risk identification, assessment, control and financing
- Assurance needs to be placed on the knowledge of senior and key management regarding the measurement and management of operational risk and Basel II because it is their responsibility to implement these strategies
- The four levels of operational risk, as discussed in Chapter 4, which include people, processes, technical and technology, need to be measured and managed properly
- It is imperative that management understands it will be impossible to manage operational risk, if it cannot be measured.

6.4 FURTHER RESEARCH

It is evident from the research conducted in this study that co-operative banks play a very important role in the South African banking environment, even though these institutions are in the early stages of development. It was found that the literature regarding the current methods used to measure and manage operational risk is extremely limited. Recently, there has been no attempt at researching the current

methods applied by South African co-operative banks in order to measure and manage operational risk. It is therefore important that further research be conducted regarding the different manners in which South African co-operative banks can measure and ultimately manage operational risk.

As this study concluded that co-operative banks are under no obligation to implement Basel II and recommended the Basic Indicator Approach to measure operational risk, further research may yield other possible approaches, designed specifically for South African co-operative banks, to measure and manage operational risk.

6.5 SUMMARY

This study was based on quantitative research, which aimed to provide evidence regarding the current methods used in South African co-operative banks in measuring and managing operational risk. This research, which consisted of a literature study in Chapters 2, 3 and 4 and an empirical study in Chapter 5, found that co-operative banks are relatively new to the South African banking sector. This implies that South African co-operative banks are unsophisticated, especially when compared to co-operative banks in developed countries. Another finding was that the South African co-operative banking sector has a formal and informal development, which makes the South African co-operative banking sector unique.

It was established that co-operative banks are under no obligation to implement any of the Basel II approaches. However, based on the empirical research, it was found that South African co-operative banks do use Basel II as a benchmark when setting their capital requirements. It was suggested that, because South African co-operative banks already use Basel II as a benchmark for setting capital requirements, the Basic Indicator Approach, proposed by the Basel II Accord, be implemented.

APPENDIX A

Operational Risk Questionnaire

Please indicate the type of institution you represent

Co-operative Bank	
Savings and Credit Co-operative	

Please answer the following questions by indicating an x in the applicable box

Scale:

1. Not at all
2. To a lesser degree
3. To a fair degree
4. To a high degree
5. Completely
6. Unsure

Section 1: Operational risk identification

1. To what degree would you rate the following as primary risk types within your organisation?

1.1 Operational risk	1	2	3	4	5	6
1.2 Credit risk	1	2	3	4	5	6
1.3 Liquidity risk	1	2	3	4	5	6
1.4 Interest rate risk	1	2	3	4	5	6
1.5 Reputational risk	1	2	3	4	5	6
1.6 Legal risk	1	2	3	4	5	6
1.7 Market risk	1	2	3	4	5	6

2. To what degree would you rate the awareness of employees about operational risk?	1	2	3	4	5	6
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3. To what degree has your organisation adopted a specific definition for operational risk?	1	2	3	4	5	6
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4. To what degree has your organisation recognised the following as primary factors of operational risk?

4.1 People	1	2	3	4	5	6
4.2 Processes	1	2	3	4	5	6
4.3 Systems	1	2	3	4	5	6
4.4 External Factors	1	2	3	4	5	6

5. To what degree has your organisation recognised the following people exposures as an important part of operational risk?

5.1 Incompetence	1	2	3	4	5	6
5.2 Negligence	1	2	3	4	5	6
5.3 Human error	1	2	3	4	5	6
5.4 Low morale	1	2	3	4	5	6
5.5 Fraudulent/criminal activities by employees	1	2	3	4	5	6
5.6 Lack of training	1	2	3	4	5	6

6. To what degree has your organisation recognised the following process exposures as an important part of operational risk?

6.1 Error in procedures/methodologies	1	2	3	4	5	6
6.2 Execution errors	1	2	3	4	5	6
6.3 Documentation errors	1	2	3	4	5	6
6.4 Product complexity	1	2	3	4	5	6
6.5 Security risks	1	2	3	4	5	6

7. To what degree has your organisation recognised the following system exposures as an important part of operational risk?

7.1 System infiltration	1	2	3	4	5	6
7.2 System failures	1	2	3	4	5	6
7.3 Fraud (e.g. hackers)	1	2	3	4	5	6
7.4 Programme errors	1	2	3	4	5	6
7.5 Information risk	1	2	3	4	5	6
7.6 Telecommunication risk	1	2	3	4	5	6
7.7 Obsolescence of systems	1	2	3	4	5	6

8. To what degree has your organisation recognised the following external exposures as an important part of operational risk?

8.1 Acts of God	1	2	3	4	5	6
8.2 External criminal activities	1	2	3	4	5	6
8.3 Political Upheaval	1	2	3	4	5	6
8.4 Legal actions	1	2	3	4	5	6
8.5 Business environment changes	1	2	3	4	5	6
8.6 Strikes	1	2	3	4	5	6

9. To what degree has your organisation used the following as important elements of an operational risk management process?

9.1 Risk identification	1	2	3	4	5	6
9.2 Risk evaluation/measurement	1	2	3	4	5	6
9.3 Risk control	1	2	3	4	5	6
9.4 Risk financing	1	2	3	4	5	6

10. To what degree has your organisation recognised the implementation of risk identification as an important ongoing process?	1	2	3	4	5	6
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11. To what degree has your organisation recognised the following methods as the most appropriate to identify various types of risks?

11.1 Workshops	1	2	3	4	5	6
11.2 Brainstorming	1	2	3	4	5	6
11.3 Questionnaires	1	2	3	4	5	6
11.4 Process mapping	1	2	3	4	5	6
11.5 Comparisons with other organisation	1	2	3	4	5	6
11.6 Discussions with peers	1	2	3	4	5	6

12. Please select all the statements that are relevant to your organisation.

12.1 You identify events that may have a negative impact and represent operational risk?	
12.2 You set up an operational risk tolerance threshold for each department?	
12.3 You set up an operational risk tolerance threshold for the entire company?	
12.4 You have a range of control actions to identify the negative impacts and the occurrence of negative events?	
12.5 You have a classification of the operational risk according to their impacts and urgency?	

Section 2: Operational risk measurement

13. To what degree has your organisation recognised the importance of the following qualitative methods to measure operational risk?

13.1 Historical data to forecast the likelihood of a potential loss	1	2	3	4	5	6
13.2 Self-risk assessment	1	2	3	4	5	6
13.3 Risk mapping/Process flows	1	2	3	4	5	6
13.4 Other (Please specify):						

14. To what degree has your organisation implemented the following qualitative methods to measure operational risk?

14.1 Historical data to forecast the likelihood of a potential loss	1	2	3	4	5	6
14.2 Self-risk assessment	1	2	3	4	5	6
14.3 Risk mapping/process flows	1	2	3	4	5	6
14.4 Other (Please specify):						

15. To what degree has your organisation recognised the importance of the following quantitative methods to measure operational risk?

15.1 Casual modelling	1	2	3	4	5	6
15.2 Risk indicators	1	2	3	4	5	6
15.3 Loss-event database	1	2	3	4	5	6
15.4 Other (Please specify):						

16. To what degree has your organisation implemented the following quantitative methods to measure operational risk?

16.1 Casual modelling	1	2	3	4	5	6
16.2 Risk indicators	1	2	3	4	5	6
16.3 Loss-event database	1	2	3	4	5	6
16.4 Other (Please specify):						

	Yes	No
17. Do you measure the impact of operational risk? (if yes go to 18 if no go to 19)		

18. What types of measurement techniques do you make use of?

Qualitative metrics:	
Qualitative scale (high, medium, low)	
Other indicator?	
Quantitative metrics:	
Approximate figure in Rand	
Quantitative scale (e.g. 1-5)	
Other indicator?	

19. Do you document operational risk measures?	Yes	No
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20. Do you use Key Risk Indicators or Key Performance Indicators?	Yes	No
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21. Do you have a database for operational risk? (if yes go to 22 if no go to 23)	Yes	No
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22. How regularly do you update this operational risk database?

22.1 Twice a year	
22.2 Once a year	
22.3 Once every two years	
22.4 Once every five years	
22.5 Never	

Section 3: Operational risk control

23. To what degree has your organisation recognised the importance of the following control measures of operational risk?

23.1 Policy and procedures	1	2	3	4	5	6
23.2 Internal controls	1	2	3	4	5	6
23.3 Risk reporting	1	2	3	4	5	6
23.4 Other (Please specify):						

24. To what degree has your organisation implemented the following control measures of operational risk?

24.1 Policy and procedures	1	2	3	4	5	6
24.2 Internal controls	1	2	3	4	5	6
24.3 Risk reporting	1	2	3	4	5	6
24.4 Other (Please specify):						

Section 4: Operational risk management

25. To what degree would you rate the competency of the employees engaged in the process of risk management in your organisation?	1	2	3	4	5	6
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26. To what degree has your organisation established a separate operational risk management structure?	1	2	3	4	5	6
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27. To what degree does your organisation regard operational risk management as a function and responsibility of the board of directors?	1	2	3	4	5	6
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28. To what degree is an operational risk management process recognised as an important and integral part of your organisation's overall management process?	1	2	3	4	5	6
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29. To what degree has your organisation recognise the importance of implementing a formal risk management process?	1	2	3	4	5	6
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30. Does your operational risk management system capture the operational risk events and near misses in day-to-day management practice?	Yes	No
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31. Do you have Information Technology tools in place for operational risk management?	Yes	No
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32. Are there any structures for operational risk management improvement?	Yes	No
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33. Do you apply standards for operational risk management? (if yes go to 34 if no go to 35)	Yes	No
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34. What are the structures in place for operational risk management improvement?

34.1 Informal discussions	
34.2 Brainstorming sessions	
34.3 Self assessment workshops	
34.4 Formal workflow	
34.5 Other (Please specify):	

35. What types of Information Technology tools do you have in place for operational risk?

35.1 Data base	
35.2 Monitoring tools	
35.3 Excel sheets	
35.3 Other (Please specify):	

Section 5: Basel II implementation for operational risk

36. To what degree has your organisation been involved in determining a regulatory capital allocation for operational risk?	1	2	3	4	5	6
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37. To what degree has your organisation recognised and evaluated the following Basel II approaches to assess capital for operational risk?

37.1 Basic Indicator Approach	1	2	3	4	5	6
37.2 Standardised Approach	1	2	3	4	5	6
37.3 Advanced Measurement Approach	1	2	3	4	5	6

38. To what degree does your organisation regard the allocation of regulatory capital, proposed by the Basel Committee, toward operational risk as essential?	1	2	3	4	5	6
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39. To what degree would you rate the significance of the implementation of Basel II in your organisation	1	2	3	4	5	6
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40. To what degree would you rate the priority attributed to the <u>implementation</u> of Basel II by the management of your organisation	1	2	3	4	5	6
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41. To what degree would your rate the knowledge of your employees about Basel II	1	2	3	4	5	6
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42. How do you see the implementation of Basel II?

42.1 Opportunity to improve risk management process	
42.2 Opportunity to improve corporate governance	
42.3 More problems than advantages	
42.4 Other (Please specify):	

43. What do you see as possible disadvantages of the implementation of Basel II standards?

43.1 Higher capital requirements	
43.2 Lack of personnel	
43.3 Personnel training and information system development costs	
43.4 Other (Please specify):	

APPENDIX B

Operasionele Risiko Vraelys

Dui asseblief die tipe instansie wat u verteenwoordig aan

Koöperatiewe Bank	
Spaar en Krediet Koöperatief	

Antwoord asseblief die volgende vrae deur die betrokke kolom te merk met 'n x

Skaal:

1. Gladnie
2. Tot 'n mindere mate
3. Tot 'n redelike mate
4. Tot 'n hoër mate
5. Geheel en al
6. Onseker

Afdeling 1: Operasionele risiko indentifikasie

1. Tot watter mate sal u die volgende as primêre risikotipe in die organisasie klasifiseer?

1.1 Operasionele risiko	1	2	3	4	5	6
1.2 Krediet risiko	1	2	3	4	5	6
1.3 Likiditeits risiko	1	2	3	4	5	6
1.4 Opbrengskoers risiko	1	2	3	4	5	6
1.5 Reputasie risiko	1	2	3	4	5	6
1.6 Regsrisiko	1	2	3	4	5	6
1.7 Mark risiko	1	2	3	4	5	6

2. Tot watter mate sal u die werknemers se bewusheid van operasionele risiko klasifiseer?	1	2	3	4	5	6
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3. Tot watter mate het hou organisasie 'n spesifieke definisie vir operasionele risiko geïdentifiseer?	1	2	3	4	5	6
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4. Tot watter mate erken u organisasie die volgende as primêre faktore van operasionele risiko?

4.1 Mense	1	2	3	4	5	6
4.2 Prosesse	1	2	3	4	5	6
4.3 Stelsels	1	2	3	4	5	6
4.4 Eksterne faktore	1	2	3	4	5	6

5. Tot watter mate erken u organisasie die volgende mense blootstelling as operasionele risiko?

5.1 Onbevoegdheid	1	2	3	4	5	6
5.2 Nalatigheid	1	2	3	4	5	6
5.3 Menslike foute	1	2	3	4	5	6
5.4 Lae moraak	1	2	3	4	5	6
5.5 Bedrog / kriminele aktiwiteite deur werknemers	1	2	3	4	5	6
5.6 Gebrek aan opleiding	1	2	3	4	5	6

6. Tot watter mate erken u organisasie die volgende proses blootstelling as operasionele risiko?

6.1 Fout in procedures/ metodologie	1	2	3	4	5	6
6.2 Uitvoeringsfoute	1	2	3	4	5	6
6.3 Dokumentasie foute	1	2	3	4	5	6
6.4 Produk kompleksiteit	1	2	3	4	5	6
6.5 Sekuriteitsrisiko	1	2	3	4	5	6

7. Tot watter mate erken u organisasie die volgende stelsel blootstelling as 'n belangrike deel van operasionele risiko?

7.1 Stelsel infiltrasie	1	2	3	4	5	6
7.2 Stelsel mislukking	1	2	3	4	5	6
7.3 Bedrog	1	2	3	4	5	6
7.4 Programfoute	1	2	3	4	5	6
7.5 Inligting risiko	1	2	3	4	5	6
7.6 Telekommunikasie risiko	1	2	3	4	5	6
7.7 Veroudering van stelsels	1	2	3	4	5	6

8. Tot watter mate erken u organisasie die volgende eksterne blootstelling as 'n belangrike deel van operasionele risiko?

8.1 Natuurramp	1	2	3	4	5	6
8.2 Eksterne kriminele aktiwiteite	1	2	3	4	5	6
8.3 Politieke oproer	1	2	3	4	5	6
8.4 Regulasies	1	2	3	4	5	6
8.5 Besigheid ongewing veranderinge	1	2	3	4	5	6
8.6 Stakings	1	2	3	4	5	6

9. Tot watter mate het u organisasie die volgende as belangrike elemente van die operasionele risiko bestuursproses gebruik?

9.1 Risiko identifisering	1	2	3	4	5	6
9.2 Risiko evaluering/meting	1	2	3	4	5	6
9.3 Risiko beheer	1	2	3	4	5	6
9.4 Risiko finansiering	1	2	3	4	5	6

10. Tot watter mate het u organisasie die implementering van risiko identifisering as 'n belangrike voortgaande proses erken?	1	2	3	4	5	6
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11. Tot watter mate het u organisasie die volgende metodes as die mees toepaslike erken om verkeie tipes risikos te identifiseer?

11.1 Werkswinkels	1	2	3	4	5	6
11.2 Dinkskrums	1	2	3	4	5	6
11.3 Vraelyste	1	2	3	4	5	6
11.4 Prosesvloei	1	2	3	4	5	6
11.5 Vergelykings met ander organisasies	1	2	3	4	5	6
11.6 Gesprekke met gelykes	1	2	3	4	5	6

12. Kies asseblief al die stellings wat toepaslik is op u organisasie

12.1 U identifiseer gebeurlikhede wat 'n negatiewe impak kan hê en wat operasionele risiko kan verteenwoordig?	
12.2 U stel 'n operasionele risiko toleransie drumpel op vir elke departement?	
12.3 U stel 'n operasionele risiko toleransie drumpel op vir die hele organisasie	
12.4 U het 'n reeks kontrole aksies in plek om negatiewe impakte en negatiewe gebeurtenisse te identifiseer?	
12.5 U het 'n klassifikasie van die operasionele risiko volgens hulle impak en dringendheid?	

Afdeling 2: Operasionele risikometing

13. Tot watter mate het u organisasie die belangrikheid van die volgende kwalitatiewe metodes erken om operasionele risiko te meet?

13.1 Historiese data om die moontlikheid van potensiële verlies vooruit te skat	1	2	3	4	5	6
13.2 Self risiko assessering	1	2	3	4	5	6
13.3 Risiko / prosesvloei	1	2	3	4	5	6
13.4 Ander (Spesifiseer):						

14. Tot watter mate het u organisasie die volgende kwalitatiewe metodes geïmplementeer om operasionele risiko te meet?

14.1 Historiese data om die moontlikheid van potensiële verlies vooruit te skat	1	2	3	4	5	6
14.2 Self risiko assessering	1	2	3	4	5	6
14.3 Risiko / prosesvloei	1	2	3	4	5	6
14.4 Ander (Spesifiseer):						

15. Tot watter mate het u organisasie die belangrikheid van die volgende kwantitatiewe metodes erken om operasionele risiko te meet?

15.1 Informele modullering	1	2	3	4	5	6
15.2 Risiko aanwysers	1	2	3	4	5	6
15.3 Verliesgeleetheid databasis	1	2	3	4	5	6
15.4 Ander (Spesifiseer):						

16. Tot watter mate het u organisasie die volgende kwantitatiewe metodes geïmplementeer om operasionele risiko te meet?

16.1 Informele modullering	1	2	3	4	5	6
16.2 Risiko aanwysers	1	2	3	4	5	6
16.3 Verliesgeleetheid databasis	1	2	3	4	5	6
16.4 Ander (Spesifiseer):						

17. Meet u die impak van operasionele risiko (indien ja voltooi 18, indien nee voltooi 19)	Ja	Nee
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18. Van watter tipes metingtegnieke maak u gebruik?

Kwalitatiewe matriks:	
Kwalitatiewe skaal (hoog, medium, laag)	
Ander indikators?	
Kwantitatiewe matriks:	
Geraamde syfer in Rand	
Kwantitatiewe skaal (e.g. 1-5)	
Ander indicators?	

19. Dokumenteer u operasionele metings?	Ja	Nee
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20. Gebruik u sleutel risiko indicators of sleutel prestasie indikators?	Ja	Nee
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21. Het u 'n databasis vir operasionele risiko (indien ja voltooi 22, indien nee voltooi 23)	Ja	Nee
--	----	-----

22. Hoe gereeld dateer u die risiko databasis op?

22.1 Twee keer per jaar	
22.2 Een keer per jaar	
22.3 Een keer elke twee jaar	
22.4 Een keer elke vyf jaar	
22.5 Nooit	

Afdeling 3: Operasionele risiko beheer

23. Tot watter mate erken u organisasie die belangrikheid van die volgende beheermaatreëls van operasionele risiko?

23.1 Beleid en procedures	1	2	3	4	5	6
23.2 Interne beheer	1	2	3	4	5	6
23.3 Risiko rapportering	1	2	3	4	5	6
23.4 Ander (Spesifiseer):						

24. Tot watter mate het u organisasie die volgende beheermaatreëls van operasionele risiko geïmplementeer?

24.1 Beleid en procedures	1	2	3	4	5	6
24.2 Interne beheer	1	2	3	4	5	6
24.3 Risiko rapportering	1	2	3	4	5	6
24.4 Ander (Spesifiseer):						

Afdeling 4: Operasionele risiko bestuur

25. Tot watter mate sal u die bevoegdheid van die werknemers wat betrokke is in die proses van risikobestuur in u organisasie klassifiseer?	1	2	3	4	5	6
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26. Tot watter mate het u organisasie 'n aparte bestuurs struktuur geïmplementeer?	1	2	3	4	5	6
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27. Tot watter mate beskou jou organisasie operasionele risiko bestuur as 'n funksie en verantwoordelikheid van die raad van direkteure?	1	2	3	4	5	6
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28. Tot watter mate is die operasionele risiko bestuursproses erken as 'n belangrike en integrale deel van u organisasie se oorkoepelende bestuursproses?	1	2	3	4	5	6
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29. Tot watter mate erken u organisasie die belangrikheid van die implementering van 'n formele risikobestuurs proses?	1	2	3	4	5	6
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30. Vang u operasionele bestuurstelsel die operasionele risiko gebeurlikhede en "near misses" in dag tot dag bestuurs pakryk op?	Ja	Nee
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31. Het u inligtingstechnologie 'n plek vir operasionele risikobestuur?	Ja	Nee
---	----	-----

32. Is daar enige struktuur vir operasionele risikobestuurs verbetering?	Ja	Nee
--	----	-----

33. Pas u standaarde toe vir operasionele risikobestuur? (Indien ja voltooi 34, indien nee voltooi 35).	Ja	Nee
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34. Wat is die struktuur in plek vir operasionele risikobestuurs verbetering?

34.1 Informele gesprekke	
34.2 Dinkskrums	
34.3 Self assesserings werkswinkels	
34.4 Formele werksvloei	
34.5 Ander (Spesifiseer):	

35. Watter tipe inligtingstegnologie is in plek vir operasionele risiko?

35.1 Databasis	
35.2 Moniteringshulpmiddel	
35.3 Excel spreistaat	
35.3 Ander (Spesifiseer):	

Afdeling 5: Basel II implementering vir operasionele risiko

36. Tot watter mate was u organisasie betrokke by die bepaling van regulerings kapitale toedeling vir operasionele risiko?	1	2	3	4	5	6
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37. Tot watter mate erken en evalueer u organisasie die volgende Basel II benadering om kapitaal te assessee vir operasionele risiko?

37.1 Basiese Indikator Benadering	1	2	3	4	5	6
37.2 Standaard Benadering	1	2	3	4	5	6
37.3 Gevorderde Meetings Benadering	1	2	3	4	5	6

38. Tot watter mate beskou u organisasie die allokering van reguleringskapitaal voorgestel deur die Basel Komitee tot operasionele risiko as essensieel?	1	2	3	4	5	6
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39. Tot watter mate klassifiseer u die belangrikeheid van die implementering van Basel II in u organisasie?	1	2	3	4	5	6
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40. Tot watter mate klassifiseer u die prioriteit toegeskryf aan die implementering van Basel II deur die bestuur van u organisasie	1	2	3	4	5	6
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41. Tot watter mate klassifiseer u die werknemers se kennis van Basel II	1	2	3	4	5	6
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42. Hoe sien u die implementering van Basel II?

42.1 Geleentheid om die risikobestuursproses te verbeter	
42.2 Geleentheid om korporatiewe guglyne te verbeter	
42.3 Meer probleme as voordele	
42.4 Ander (Spesifiseer):	

43. Wat sien u as moontlike nadele van die implementering van die Basel II standarde?

43.1 Hoër kapitale vereistes	
43.2 Tekort aan personeel	
43.3 persoonlike opleiding en inligtingstelsels ontwikkelings koste	
43.4 Ander (Spesifiseer):	

APPENDIX C

Cover Letter

Dear participant:

My name is Ezelda Swanepoel and I am a graduate student at the North-West University. For my final project, I am examining the measurement and management of operational risk in South African co-operative banks. Because you are working in a co-operative bank / co-operative environment, I am inviting you to participate in this research study by completing the attached survey.

The following questionnaire will require approximately 15 minutes to complete. There is no compensation for responding nor is there any known risk. If you choose to participate in this project, please answer all the questions as honestly as possible and return the completed questionnaire promptly and send back in the provided stamped envelope.

Participation is strictly voluntary and you may refuse to participate at any time. Thank you for taking the time to assist me in my educational endeavours. The data collected will provide useful information regarding the measurement and management of operational risk in South African co-operative banks.

Completion and return of the questionnaire will indicate your willingness to participate in this study.

Sincerely,

Ezelda Swanepoel.

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