

The implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa

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Declaration page

To the best of my knowledge and belief, this thesis contains no material previously written or published by another person or has been accepted for the award of any diploma or degree at any university or equivalent institution, except where due reference has been made in the text of the thesis.

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Abstract

Purpose: The study conducts a thematic evaluation of IFRS 9 by focusing on the assessment of credit risk and loan loss provisioning. The aim of the study is to investigate the post-implementation and practical issues that are currently being faced when accounting for ECLs under IFRS 9. This study makes a valuable theoretical contribution by providing primary evidence on the operationalisation issues of loan loss provisioning under IFRS 9. More specifically, this investigation could be beneficial for standard setters, regulators as well as banks, and other financial entities.

Research methodology: The study employs a qualitative research approach and semi-structured interviews were conducted as the primary means of data collection. Using both purposive and convenience sampling techniques, a total of ten participants were selected to take part in the study. The data gathered during the interview process was transcribed, analysed, and interpreted using thematic data analysis. Four themes emerged from the data analysis procedure, which are: i) Transitional process; ii) Impact of the transitional process; iii) Governance, processes and controls, and; iv) IFRS 9 impairment modelling judgements. These themes were analysed using verbatim extracts obtained from the interviews.

Findings: The study elaborated on two main recent evolutions of financial instrument systems, namely IAS 39 and IFRS 9. Under IAS 39, the research highlighted that there is no recognition of expected losses stemming from future events. Financial institutions were required to deal with losses only after the occurrence of a negative event, already affecting credit quality. The recently introduced IFRS 9, which came into force in January 2018, marked a paradigm shift from incurred loss to expected loss but differed at the moment at which expected losses are recognized as it demanded to account for the expected losses in the next 12 months as long as the asset did not show a significant increase in risk, thereby triggering the recognition of the ECL for the remaining lifetime.

The importance of applying reasonable judgement guided by and within conceptual or standard-level boundaries was also discussed in the study. It was also argued that IFRS 9 places great responsibility on the judgement of prudential supervisors mostly because of their role in ensuring the accurate use and implementation of IFRS 9. Their role mostly involves a thorough assessment of banks to determine whether appropriate credit risk management practices are implemented, assessing whether the calculation and measurement of loan loss provisioning are adequate, evaluating whether adequate policies are in place for the early identification of problem assets, and ensuring whether there is consistency in the application of the new accounting standard across institutions.

With regards to the issue of preparedness in the transition to IFRS 9, the respondents outlined many activities such as workshops, presentations, and training by various experts in the accounting, statistical, economic, and actuarial fields to better prepare users of IFRS 9. Although numerous benefits come with the implementation and transition from IAS 39 to IFRS 9, entities also faced huge challenges. This was unanimously revealed by all the participants as they were in complete agreement that the implementation of IFRS 9 was far more complex than that of IAS 39. These challenges include issues in data and modelling, systems infrastructure, governance and control, cost, and vagueness.

Following the challenges been faced, the study also revealed the importance of governance and controls through which financial institutions have to strike the right balance between building a sustainable revenue proposition and ensuring regulatory compliance. The study also revealed 3 key judgement areas of IFRS 9 that have been applied in the impairment of ECLs. Because financial institutions were given latitude to make different judgements when modelling IFRS impairment provisions, the researcher identified that there is alignment and divergences in the identified judgements areas. These judgement areas include the applicable definitions of default, the determining factors in SICR and the structure of forward looking macroeconomic variables. There are also divergences and inconsistencies present in the application of certain key judgement areas in IFRS 9 impairment modelling that was highlighted by some of the participants

Originality Value: Studies that pertain to the post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa are by no means exhaustive and very limited in number. This study, therefore, contributes to the limited body of interpretive, non-positivist financial reporting research being performed in South Africa.

Keywords: *Banks, Credit risk, Expected credit loss, Financial institutions, IAS 39, Impairment, International financial reporting standards (IFRS), IFRS 9, Judgment, Probability of default, Prudential supervision, Significant increase in credit risk.*

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List of Acronyms

Abbreviation	Description
AC	Amortised cost
ALCCO	Asset, Liability, and Capital Management Committee
BCBS	Basel Committee on Banking Supervision
CRM	Credit risk migration
CTA	Capital transition arrangement
ECL	Expected credit losses
EIR	Effective interest rate
FASB	Financial Accounting Standards Board
FIC	Financial Intelligence Centre
FSCA	Financial Sector Conduct Authority
FVOCI	Fair Value Through Other Comprehensive Income
G-SIFIs	Global systemically important financial institutions
IRB	Internal Rating Based
IASB	International Accounting Standard Board
IASC	International Accounting Standard Committee
IFRS	International Financial Reporting Standards
LLP	loan loss provisions
MoU	Memorandum of Understanding
NCR	National Credit Regulator
P&L	Profit and loss
PIT	Point in time
POCI assets	Purchased or Originated credit-impaired financial assets
PV	Present value
RCCC	Risk, Capital Management and Compliance Committee
RWA	Risk-weighted asset
SARB	South African Reserve Bank
TTC	Through-the-cycle
UTP	Unlikelihood to pay

CHAPTER 1

INTRODUCTION AND RESEARCH BACKGROUND

1. Introduction

The 2008 global financial crisis raised attention to several flaws of the IAS 39 –Financial Instruments: Recognition and Measurement standard. These flaws were established when the G20 conducted an assessment on the performance of IAS 39 during the financial crisis and realised that the accounting standard's treatment of accounting losses was aggravating the effect of the financial crisis (European Systemic Risk Board, 2017). Specific to the shortcoming of IAS 39 was the 'too little, too late' reserves which resulted from the pro-cyclical loan loss provisions (LLP) (Bouvatier, Lepetit, & Strobel, 2014). To overcome this, regulatory bodies, G20 leaders, prudential authorities, and investors responded to calls for action for developing alternative approaches for improving the standards and practices for loan loss provisioning (European Systemic Risk Board, 2017). The IAS 39 was then subsequently superseded by IFRS 9 – Financial Instruments on the 24th of July, 2014 and this new standard included new measures for impairment and loan loss provisioning, and it became effective on the 1st of January 2018 (Bouvatier, et al., 2014).

The introduction of IFRS 9 changed the impairment model for financial assets profoundly and was also viewed as a key issue in the banking sector concerning its ability to ensure the soundness and safety of the banking system, as well as to strengthen its long-term stability (Gatson & Song, 2014). Humblot (2018) concurs that one of the major causes of bank failure is inadequacies in credit quality and their resulting losses. Loan loss provisioning is therefore considered as one of the key practices for banks due to their practice of risk transformation and risk management. Under IFRS 9, therefore, banks are required to record provisions for impairment from the moment of initial recognition of a financial asset. Subsequently, the standard emphasises that additional provisions for impairment should be made if there is any significant increase in credit risk (SICR) since the initial recognition of a financial asset and valuations should be recognized at each reporting date (Gatson & Song, 2014).

Inherent to the implementation of IFRS 9 loan loss provisioning by banks is the supervisory guidance imposed by the Basel Committee on Banking Supervision (BCBS). Although the objectives of the supervisory principles and IFRS 9 are different in their own right, they exert almost equal weights in shaping the loan loss provisioning practices of banks (Gatson & Song, 2014). This is because, in addition to banks, accounting professionals, and external auditors who have authority over the identification of impaired assets and measurement of provisioning

levels, prudential supervision of banks is also particularly needed given the imprecise nature and requirements of loan loss provisioning under IFRS 9 (Humboldt, 2018).

Recently, the world has been facing a Covid-19 pandemic that has led to severe financial and economic downturn across the globe, which, subsequently, has led to liquidity concerns, financial market volatility and erosion, credit deterioration as well as adverse impacts on credit quality (Danyluk, Vendette & Lam, 2020; Briault, 2020). The pandemic, therefore, brought to the fore the issue of uncertainties and their impact on IFRS 9's expected credit loss (ECL) provisioning. Given this, Barnoussi, Howieson and Van Beest (2020) recommended that the standards' demand for the use of historical data and forward looking scenarios should call for continuous management adjustments that relate to specific situations along with greater governance across entities to provide adequate measurement and calculation of credit risk. This, as a result, demonstrates the complexity surrounding the use of IFRS 9 in ECL provisioning as it has raised questions on how ECLs should be calculated, how significant cost and time associated with building and running IFRS 9 compliant ECL models should be minimised, and how significant changes to credit risk should be predicted and reported (Lee, Hwang & Kang, 2020). This study, therefore, aims to conduct a thematic evaluation by employing an investigation on the post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa.

1.1. Background of the study

1.1.1. History and development of IFRS

The International Accounting Standard Committee's (IASC) formation of the International Financial Reporting Standards (IFRS) in 1973 is regarded as one of the most substantial steps and changes taken in the history of accounting (Walker, 2010). The creation of IFRS, according to Herbert, Ene, and Tsegba, (2013), was perpetrated by the worldwide concern for a financial reporting architecture that was uniform and this subsequently gave rise to a movement towards international harmonization of financial reporting standards by countries across the globe. The goal of the worldwide process of harmonisation of IFRS standards was to achieve the good functioning of international capital markets by improving the quality of financial reporting and to increase the comparability of financial reporting at a global level (Rezaee, Smith & Szendi, 2010). Walker (2010) was, however, highly critical about this global uniform framework for IFRS arguing, instead, for a cautious approach to the imposition of a single set of a global accounting standard by nation-states because of the varieties of capitalism that exist. He further explained that the use of a uniform accounting standard constrains the different types of capitalism from developing, thereby preventing alternative and superior ways of doing business from taking place. Rezaee, et al (2010) therefore suggest

that the optimal design of accounting standards should be based on institutional characteristics of various political and economic systems, whether nationally or internationally because countries and financial institutions are characterized by different legal, economic, political, social, and cultural institutions which differ from each other.

Despite these concerns, however, Pratiwi, Shalihatulhayah, and Mayasari (2013) are insistent on the necessity of uniform international standardisation and the establishment of standards for financial reporting which are common to all countries. However, IFRS has been embraced all over the world and in 2007, Sir David Tweedie, the Chairperson of International Accounting Standards Board (IASB), in his discussion on the future of IFRS and the global accounting profession, stated that over a hundred countries allowed companies to use IFRS, and the number was anticipated to rise to in future (Pickard, 2007). The manifestation of this assertion was witnessed in 2018 following the decision by seventeen African countries to adopt IFRS standards from 2019, making the total number of jurisdictions currently applying the standard 166. Out of this number, 144 jurisdictions require the use of IFRS standards while 12 of them permit the standards (IFRS, 2018). This number is a testament to the widespread acceptance of the IFRS and, consequently, the standard has been deemed as a global benchmark in which financial transactions can be conducted and reported (Herbert, et al., 2013).

In specific reference to South Africa, the adoption of IFRS began as early as 1995, but with minor modifications. However, in 2000, South African principles were established almost in total homogeneity with those of IFRS, thus furthering its adoption of IFRS in 2003 after a decision was made by SAICA to issue IFRS in South Africa without any amendments thereto (Pranther-Kinsey, 2006). Formal adoption of IFRS was however finalised on the 1st of January, 2005, leading to the mandatory requirement for all firms listed on the Johannesburg Securities Exchange (JSE) to present their financial statements by following IFRS principles (Pranther-Kinsey, 2006; Meyer, Stiglingh & Venter, 2006). In light of this, therefore, South Africa is obligated to adopt IFRS 9, which is one of the most recent, but one of the many standards that has been published by the IASB.

However, in order to foster long-term financial stability, increase transparency in financial markets, and enhance market discipline, the IFRS Foundation partnered and formed an agreement, in the form of a Memorandum of Understanding (MoU) with the BCBS in 2017 (IFRS, 2017). This cooperation agreement strengthened the relationship and formalised the mutual interaction that already existed between the two institutions at a working and strategic level. The main focus of this partnership was on the interaction between the BCBS Framework and IFRS 9, especially concerning how they are applied in practice by financial entities across the world (IFRS, 2017). A brief history of the BCBS is provided in the section that follows.

1.1.2. A brief history of the Basel Committee on Banking Supervision (BCBS)

The BCBS, initially termed the Committee on Banking Regulations and Supervisory Practices, originated in 1973 in the aftermath of major instabilities in banking markets and international currency caused by the breakdown of the Bretton Woods system (Bank for International Settlements, 2001). The collapse of Bretton Woods affected many banks across the world, notably, the Bankhaus Herstatt in West Germany which subsequently incurred large foreign currency losses. Banks outside Germany such as the Franklin National Bank of New York also took heavy losses on their unsettled trades with Herstatt which caused them to close their doors after incurring large foreign exchange losses (Bank for International Settlements, 2001). As a result of this turmoil in the international financial markets, central bank governors of the G10 countries established the BCBS to enhance financial stability.

Since its inception, the BCBS has expanded its membership from G10 to 45 members from 27 jurisdictions (Bank for International Settlements, 2011). South Africa became a member state in 2009 when the BSBC enhanced its inclusiveness and acceptability by expanding membership in both 2009 and 2014 (Bank for International Settlements, 2011; Mishi & Khumalo, 2019). South Africa is, however, the only African country that is currently a member of the BCBS as other representatives comprise of central banks and bank supervisors from Spain, Australia, Argentina, Belgium, Brazil, Switzerland, China, Canada, Sweden, Mexico, France, Hong Kong SAR, Russia, the United Kingdom, Germany, Italy, Indonesia, India, the Netherlands, Luxembourg, Korea, Japan, Saudi Arabia, Singapore, the United States and Turkey (Coen, 2010).

The role of these representatives, according to Coen (2010), is to enhance the BCBS's ability to carry out its mission to strengthen supervisory standards and practices at a global level. In other words, the BCBS focuses on improving the understanding and quality of bank supervision around the globe serving as a forum for regular cooperation on supervisory matters of banks between member states (Bouvatier, et al., 2014). Because of this, Goodhart (2010) purports that the BCBS has become a *de facto* international regulatory body although it does not have any legal standing in any country nor a formal supranational supervisory authority. Instead, the BCBS depends on national authorities to implement the standards and guidelines that they formulate. The BCBS, as a result, does not encourage the harmonisation of supervisory techniques from member standards but supports the convergence towards common standards and regulations instead (Goodhart, 2010). This means, similar to IFRS 9 ECL modelling, supervisory techniques and judgement vary and are not uniform, as they depend on different situations or circumstances (Barnoussi, et al., 2020).

1.1.3. Unpacking how ECL provisioning under IFRS 9 fits into South Africa's financial sector

As has been mentioned before, IFRS 9 is especially applicable to financial institutions and in South Africa, just like most countries across the globe, it has largely been most relevant in the banking sector. South Africa's banking sector is, in essence, generally large and sophisticated, and also has a high degree of concentration and interconnectedness (Nyantakyi & Sy, 2015). In a report by the ADV Ratings (2019), it was stated that 67 registered banks are operating in the country, of which 17 are local banks, and 50 are local branches of foreign banks, mutual banks, and subsidiaries. Despite this sheer number, the South African banking sector is largely dominated by five banks, i.e., ABSA which was founded in 1991; Standard Bank, founded in London in 1862; First National Bank, which was founded in 1838; Nedbank, which was founded in 1888, and Investec, which was founded in 1974 (Business Tech, 2021b). These major banks, as of March 2021, collectively hold over 90% of the country's total banking assets which are approximately valued at R5.8 trillion. However, combined, the total balance sheet of the banking sector in South Africa, as of November 2021, has been reported to be ZAR 6, 782 173 (Business Tech, 2021a). These statistics are evident that South Africa's banking sector is one of the most developed and advanced in Africa (Nyantakyi & Sy, 2015) and compares favourably with first world countries due to their sophistication and sound regulations (Mishi & Khumalo, 2019).

On a regulatory front, Blanchard, Dell'Ariccia, and Mauro (2010) argue that the South African financial sector is well regulated and closely monitored. Scott (2021) emphasises the importance of such staunch measures primarily to ensure the stability of the sector, not only to reduce or eliminate any threat to the country's financial system but to also maintain confidence among depositors and investors. Various institutions have therefore been established to oversee this mandate, including the Financial Intelligence Centre (FIC), the South African Reserve Bank (SARB), National Credit Regulator (NCR), and the Financial Sector Conduct Authority (FSCA) (Scott, 2021). However, Sugiarto and Suroso (2020) largely emphasize that the most critical component of bank regulation is minimising significant risks, especially credit risks that financial institutions can be mainly exposed to. Beerbaum (2015) also concurs that the most vital risk exposure for financial institutions is credit risk, as it attracts the most interest and is unavoidable especially in banks due to the nature of their business. The impact of credit risk generally affects the assets and operating loans portfolio of banks which in turn, negatively affects profitability. As such, there is a great demand for financial sectors to implement rigorous management acumen in their credit management practices (Sugiarto & Suroso, 2020). Credit risk management is, in other words, a key competency for the supervision of the financial sector and the management of banks. The adoption and

implementation of IFRS 9's ECL model reinforced this objective through its requirements for financial entities to provide loans by engaging in the timely recognition of risk provisioning of ECL in order to provide a capital buffer against losses (Cohen & Edwards, 2017).

1.2. Research problem

Novotny-Farkas (2016) argues that the global financial crisis of 2008 revealed that delays in recognising, measuring, and identifying increases in credit risk can prolong and aggravate problems and also hamper proper credit risk management. The IFRS 9 is therefore a major change in the way financial assets are reported but its implementation is very complex (Popescu & Ionescu, 2019). Inherent to this problem is the dual-approach system of diverging approaches between supervisors and accountants (Gatson & Song, 2014). While accounting and auditing professionals are charged with ensuring the recognition and measurement of ECLs in following the IFRS 9 impairment model, bank supervisors, on the other hand, are charged with the responsibility for assessing credit risk and enforcing capital adequacy and ensuring that overall loan loss provisioning is sufficient and timely (Gatson & Song, 2014). This problem is exacerbated by the fact that there is a lack of a mechanistic approach or specific guidance in the provisioning of ECLs in IFRS 9, yet a disciplined, consistent, robust, and high-quality implementation of the standard is expected across all jurisdictions (Novotny-Farkas, 2016; IFRS, 2020).

In addition to this, IFRS 9 fails to dictate the exact basis to which forward looking scenarios should be determined when estimating ECLs (IFRS, 2020). The application of judgement is required instead, through which financial entities are allowed to adjust their approach to determining ECLs in different circumstances (Gatson & Song, 2014). An example where IFRS 9 sparked heavy concern in the way ECLs can be measured and whether there are applicable in the current environment is in the context of the Covid-19 pandemic (IFRS, 2020). This pandemic, as Danyluk, et al (2020) argue, has shown that the approach in the application of IFRS 9 is determined by circumstances especially those that are difficult and cause high uncertainty levels. Given this backdrop, it is necessary to formulate a contextual basis of understanding concerning the implementation and practical issues of loan loss provisioning under IFRS 9.

1.3. Research objective

Given the complex requirements in the implementation of IFRS 9, the objective of this study is to conduct a thematic evaluation of IFRS 9 by focusing on the assessment of credit risk and loan loss provisioning. The study aims to do this by investigating the post-implementation and practical issues that are currently being faced when accounting for ECLs under IFRS 9.

1.4. Research question

The research question for this study is:

What are the implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa?

The sub-questions include:

- To what extent were entities prepared for the IFRS 9 transition from IAS 39?
- What implementation challenges were encountered before, during, and after the IFRS 9 transition?
- What are the key considerations and issues encountered when performing qualitative validation of ECLs?

1.5. Significance of the study

This study makes a valuable theoretical contribution by providing primary evidence on the operationalisation issues of loan loss provisioning under IFRS 9. More specifically, this investigation could be beneficial for standard setters, regulators as well as banks, and other financial entities:

- Standard setters: In the interest of facilitating consistent implementation of the IFRS 9 standard, the investigation and findings of this study may provide a better understanding of the implications being faced that disrupt the successful implementation of the standard. The study will therefore act as a benchmark for proactive monitoring and evaluation on the application of the standard which, in turn, could be used in identifying gaps in the application of the standard for either improvement or correction of future publications.
- Regulators, banks, and other financial institutions: The investigation and findings of this study may help provide a practical analysis to the regulatory and supervisory authorities. The findings might therefore help bring to light the challenges that are being faced and whether there is a consistent implementation of the ECL model across all jurisdictions, and whether high quality, clear and concise disclosures are being achieved.

Also, by taking a qualitative research inquiry, this study contributes to the limited body of interpretive, non-positivist financial reporting research being performed in South Africa (Maroun & Jonker, 2014). Moreover, considering the argument by Argimon, Düllmann, Foos, Francis, Gaul, Georgescu, Nordal and Pramor (2015) who highlighted the lack of a

documented interplay in the interaction between IFRS 9 and the supervisory principles, stating; “while there is broad consensus that accounting rules are an important determinant of bank behaviour, the specific mechanism and their interaction with regulatory requirements are less well understood”, this study will, resultantly, contribute and add knowledge to the literature that investigates the provisioning of IFRS 9 ECL and its interaction with the supervisory principles.

1.6. Delimitations of the study

This study does not provide a technical assessment or analysis of the implementation of IFRS 9 provisions but instead, seeks to determine the operational impact of the implementation thereof.

The main focus of the study will be on IFRS 9’s impairment model and the application of the ECL model by banks. The scope of this study is also limited to South Africa.

Finally, this study will solely focus on the qualitative impacts of IFRS 9’s impairment model and not its quantitative impacts.

1.7. Limitations of the study

The study is limited to the views and knowledge of IFRS experts in detailing their experiences, knowledge, and understanding of the implementation and practical issues of loan loss provisioning under IFRS 9. It is also imperative to note that this study is subjective and is created by the views of these participants.

1.8. Research assumptions

The assumption of the study is that despite the supervisory principles that guide supervisors in the consideration and measurement of provisioning levels, various implementation, and practical problems or challenges are being encountered in the process.

The researcher also assumes that all entities in the banking sector have, although at varying degrees, encountered a variety of IFRS 9 implementation issues and challenges.

Another assumption is that all the data obtained from the interviews are reliable.

1.9. Definition of key terms

International Financial Reporting Standard (IFRS): These are policies, regulations, rules, guidelines, and procedures established by the IASB for the preparation of financial statements. The primary objective of these standards is to allow financial institutions and investors to compare financial statements with greater ease (Armstrong, Barth, Jagolinzer & Riedl, 2010).

Credit risk- Credit risk (also referred to as default risk) refers to the risk that a loan or any type of debt may not be able to be repaid by the borrower and this may cause the lender to lose the principle of the loan or the interest on the loan, or both (Marek, 2022).

Impairment: In accounting terms, impairment is widely used to describe a situation in which the recoverable amount of a fixed asset has drastically reduced (Marek, 2022).

Expected credit loss: This concept refers to the requirement in which entities must look at how current and future economic conditions impact the amount of loss (Marek, 2022).

Financial Asset- This refers to either “cash, a contract right to receive cash or other financial assets from another entity; a contractual right to exchange financial instruments with another entity under conditions that are potentially favourable; or an equity instrument of another entity” (Finch, 2010).

1.10. Chapter outline

This study consists of five chapters:

Chapter 1 consists of the introduction and background about the topic. The background specifically examines the history of the development of IFRS and the BCBS from a broad context. Thereafter, the problem statement, research aims, and objectives, the limitations, and delimitation of the study are outlined.

Chapter 2 reviews prior relevant literature and forms the theoretical background for the study. The review of prior literature will help clarify where the study fits into the existing body of knowledge by determining the gaps within the debates on the subject.

Chapter 3 clarifies the type of methodology that will be used in the study. The research approach, research design, and data collection methods will be discussed to provide an understanding of how the objectives and questions of the study research were achieved.

Chapter 4 includes a discussion of the empirical findings based on the data gathered from the semi-structured interview process. Discussions and conclusions will be made based on the analysis of these empirical findings.

Chapter 5 contains the conclusion of the study. This chapter will look back at the research problem and objectives stated in Chapter 1 to derive a conclusion. This will be achieved by summarizing the findings and the discussion and then evaluating if the research problems and objectives have been met. The chapter also provides suggestions for future research as well as recommendations.

1.11. Conclusion

This chapter presented the introduction and background of the topic by tracing the history and development of IFRS and the BCBS. The background provided a clear understanding which showed that the recent development and the mandatory adoption of the IFRS 9 and the supervisory principles published by the BCBS are interconnected, and how, even though there are no specified application guidelines, the implementation and provisioning of ECLs should be of high-quality, robust and consistent across all jurisdictions. This backdrop, therefore, forms the aims, objectives, and problem statement. The following chapter will provide a theoretical synopsis of IFRS 9 and the BCBS as well as a critical review of the literature that is relevant to the topic under study. The main purpose of the literature review is to help to clarify and determine the gaps within the subject and to examine how the study fits into the existing body of knowledge.

CHAPTER 2

LITERATURE REVIEW

2. Introduction

Having thoroughly introduced the research in Chapter 1, this chapter goes deeper to synthesize and critically interpret and evaluate the theoretical literature of prior studies. A literature review is viewed by Harris (2020) as scholarly works that have been previously published on a particular subject by accredited researchers and scholars. A literature review aims to give insight on the topic, thus making the researcher aware of the issue under study.

The research purpose of this study is to conduct a thematic evaluation of the post-implementation and practical issues of IFRS 9 by focusing on the assessment of credit risk and loan loss provisioning. As revealed in the research purpose, this research is mainly focused on two fields of literature, i.e., the IFRS 9's credit risk measurement and loan loss provisioning; and supervisory requirements. To accommodate the distinct nature of these two contextual frameworks, the researcher will discuss them separately. This is because although the literature on both these frameworks is very extensive, literature that specifically focuses on their interaction in the implementation of IFRS 9 ECL is very little. Especially that which specifically investigates this area within the South African context. The aim of reviewing prior literature in this manner gives the research foundation of knowledge and sharpens the research focus (Harris, 2020).

The outline of this literature review is in four parts. The first part includes a review that briefly discusses the evolution and development of IFRS 9, its impairment model and the different stages for impairment of financial assets. The second part will look at the regulation of IFRS 9, the history and development of the BCBS and the Basel accords. The third part of the literature review will evaluate the interaction between BCBS and IFRS 9 ECL provisioning. Finally, the fourth part will explicitly look at prior literature whose subject matter is consistent with this study, i.e., the post-implementation and practical issues being faced in IFRS 9's ECL provisioning.

2.1. The evolution and development of IFRS 9

IAS 39 "Financial Instruments: Recognition and Measurement" was released by the International Accounting Standards Board (IASB) in 2003 (Seitz, 2019). IAS 39 was essentially a rule-based accounting standard that was also known as the incurred loss approach which required financial institutions to measure and calculate credit risk only when the occurrence of impairment was objectively evident (Kadlecová, 2018; Laux & Leuz, 2010).

This meant that the occurrence of the effects of future events after the balance sheet date was not allowed to be incorporated by reporting entities, even if they were expected (Frykström & Li, 2018). This restrictive attitude towards the loan loss provisioning of future credit losses, in other words, resulted in impairments to be recognised just before default occurred, thereby instigating severe criticism for being too little, too late” (KPMG, 2018). In agreement with these sentiments, Gebhardt and Novotny-Farkas (2018) as well as De Haan and Van Oordt (2018) also claim that IAS 39’s incurred loss model prevented organisations to impair financial instruments in advance of economic downturns unless there was objective evidence (such as significant financial difficulties of obligator or issuer, the probability that the borrower will enter bankruptcy, delinquency of payment of interest or default), hence, resulting in the insufficient recognition and delay of credit losses. Gornjak (2017) also criticised the rule-based approach as being useless for failing to adapt to an environment that has innovative transactions.

Given this backdrop, IAS 39 is attributed as the major cause of the 2008 global financial crisis and because of this the International Accounting Standards Board (IASB) in cooperation with the Financial Accounting Standards Board (FASB) ultimately responded by making changes to IFRS ranges, beginning with minor modifications then implementing significant amendments of fundamental principles (Bouvatier, et al., 2014). These changes subsequently resulted in the establishment of IFRS 9 as the new standard for accounting for financial instruments (Bouvatier, et al., 2014). The IFRS 9 standard was, however, developed in three phases which are connected to three specific working issues of the accounting principle, vis-à-vis, classification and measurements of financial instruments, impairment of financial assets and hedge accounting.

- The first replacement phase was published in 2009 by IASB in *the Exposure Draft Financial Instruments: Classification and measurement*. It introduced a logical approach for the classification of financial assets driven by the organisation’s business model and the cash flow characteristics in which an asset is held. Financial assets are therefore measured at fair value or amortised cost (AC) as residual category (KPMG, 2018).
- The second phase specifically focuses on the expected loss model and the impairment for all financial assets recorded at AC. This led to the issuing of the *Exposure Draft Financial Instruments: Expected Credit Losses* in 2010 which introduced the recognition of possible future credit loss events using the ECL impairment model (KPMG, 2018).

- The third phase was developed in 2013 and introduced a substantial overhaul of hedge accounting which enables entities to better reflect on risk management activities in their financial statements (KPMG, 2018).

As Figure 2.1 depicts, after the execution of the three phases discussed above, IASB issued the final version of IFRS 9 in 2014, superseding all previous versions. This version incorporated the 2013 IFRS 9 version but with modifications to the requirements for both the classification and measurement of financial assets in the ECL impairment model (Gebhardt & Novotny-Farkas, 2018). This final draft became compulsorily effective on the 1st of January, 2018.

Figure 2.1: Summary of IFRS 9 versions

Version	Summary of content
IFRS 9 (2009)	Includes guidance on the classification and measurement of financial assets.
IFRS 9 (2010)	Incorporates IFRS 9 (2009), and adds requirements for the classification and measurement of financial liabilities.
IFRS 9 (2013)	Incorporates IFRS 9 (2010), with amendments to its transition requirements, and adds guidance on general hedge accounting.
IFRS 9 (2014)	Incorporates IFRS 9 (2013), with amendments to the requirements for the classification and measurement of financial assets, and adds requirements for the new expected credit loss model for impairment.

(Source: KPMG, 2018)

Initially, the goal of IFRS 9 was the reporting of all financial instruments at fair value, with all changes in fair value reported in net income of profit and loss (Nagarajan, 2016). However, following numerous revisions by the board, the concept of the new standard was based on the notion that financial assets should be classified and measured at fair value, with changes in the fair value recognised in profit and loss (P&L) as they arise, unless restricted criteria are met for classifying and measuring the asset at Amortized Cost or Fair Value Through Other Comprehensive Income (FVOCI) (PWC, 2017). Some of the goals of adopting IFRS 9 include:

- Reducing the number of classification categories and providing a clearer rationale for measuring financial assets;
- Applying of a single impairment method to all financial assets not measured at fair value and the exploration of alternatives to the incurred loss model for loan loss provisioning that used more forward looking information;

- Improving the quality of reporting standards to provide transparent, unbiased and consistent information, especially concerning the use of methodology, assumptions and estimates in the evaluation process.

2.2. IFRS 9: Impairment of ECLs

The impairment phase is considered the most significant development of IFRS 9, mainly because unlike IAS 39, it encourages the “earlier and timelier recognition of ECLs” (Seitz, 2019). Compared to IAS 39 where value adjustments could only be triggered by objective facts, the new impairment model is forward looking as it primarily focuses on possible future losses (Novotny-Farkas, 2015). IFRS 9, therefore, involves an anticipatory model of ECL “that is expected to lead to the creation of much bigger risk provisions without fulfilling the objective impairment triggers of IAS 39.” This means that IFRS 9 requires entities to base their measurements of ECL on information that is reasonable and supportable and that includes historical, current and future forecast information which considers possible future credit loss events on ECLs (Novotny-Farkas, 2015). This information, according to Seitz (2019), consists of material evidence about the macroeconomic environment as well as the micro parameters that might affect the financial circumstances of a client. This also means that the effective implementation of the ECL approach is highly dependent on the quality of the available credit risk data.

Furthermore, unlike the requirements of IAS 39, the ECL model under IFRS 9 requires reporting entities to always account for ECLs. This means that ECLs have to be accounted for from the point they are first recognised and then be periodically updated for any changes in ECLs (Novotny-Farkas, 2015). Moreover, while IAS 39 is rule-based, the accounting under IFRS 9 is believed to be based on principles and therefore more flexible for appliers (Laux & Leuz, 2010; Frykström & Li, 2018). IFRS 9 also has a single impairment model for financial assets and is generally perceived as a framework that changed the view of accounting altogether.

Because the requirements prescribed in IFRS 9 impairment model are new and did not exist in any previous accounting standards and other regulatory directives, several significant changes regarding credit risk management techniques, reporting systems as well as processes and internal control are expected to be carried out in future. The roles of supervisors, auditors and accountants are also expected to change, depending on the institution, county and scenario (Kadlecová, 2018). De Haan and Van Oordt (2018) also add that due to the volatile marketing conditions as well as the changing portfolio composition, bank processes, governance and audit have to be adequate and constantly responsive to ensure the successful implementation of IFRS 9.

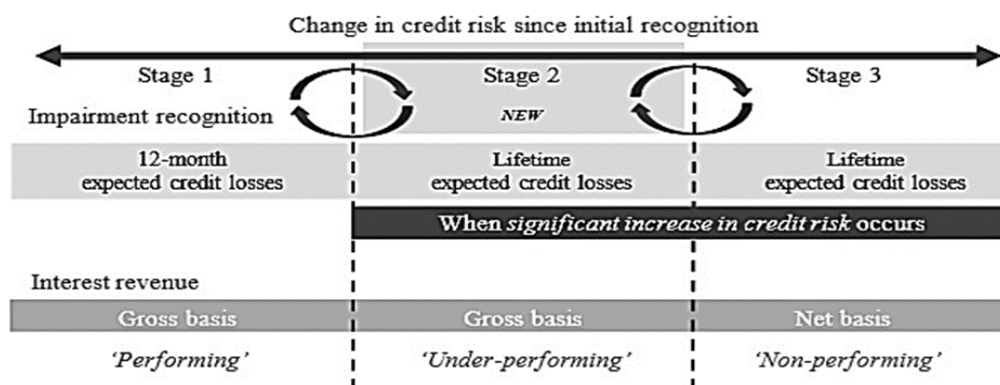
2.1.2. The Stages for impairment of financial assets

Under IFRS 9, credit risk is differentiated into three stages.

- **Stage 1** includes all financial instruments whose credit risk has not increased significantly since their initial recognition (Edwards, 2014). These are usually placed into the 12-month ECLs (12-month ECL). The 12-month ECL comprises of financial assets in good financial condition and are expected to perform regularly while remaining in line with the terms of their contracts (Frykström & Li, 2018). It also recognizes profit and loss as soon a financial instrument is originated or purchased (Seitz, 2019).
- **Stage 2** comprises of assets whose credit risk significantly increased during the life of the financial asset. The credit risk of an asset in this category can arise when an expected present value that measures expected losses arise from taking into account the potential for default at any point during the financial instrument's lifetime. This means that the entity needs to recognize full lifetime ECL in this case (Edwards, 2014; Seitz, 2019).
- **Stage 3** comprises of credit-impaired financial assets which also recognizes lifetime ECLs. Objective evidence is mostly used to determine that a financial asset is credit-impaired (Edwards, 2014; Frykström & Li, 2018). This can be through events that include the "significant financial difficulty of the issuer or the borrower; a breach of contract, such as a default or past due event; or when it is becoming probable that the borrower will enter bankruptcy or other financial reorganization" (Sy, 2017).

It should, however, be noted that it is possible to transition from stage to stage based on the underlying change in credit risk (Novotny-Farkas, 2015). Figure 2.2. provided a clear illustration of the three stages of impairment according to the ECL model.

Figure 2.2: Three stages for impairment according to ECL model



Source (Ntaikou, Vousinas & Kenourgios, 2018)

2.3. Approaches for measuring impairment for financial assets

IFRS 9 establishes a three-stage approach for measuring impairment for financial assets. These include the general approach, simplified approach and the purchased or originated credit-impaired approach. A brief outline of the approaches is presented below but it is important to first note that entities are not obligated to implement a specific approach as this can be based on the business model and classification of their financial instruments (Sy, 2017).

2.3.1. General approach

This approach is referred to as the three-bucket model and is widely used by financial institutions. The three stages of this approach are grouped into significant and non-significant depending on the increase in credit risk. Each stage differs from the other stages in the mechanism of recognition and measurement of ECLs and interest revenue (Orbán & Tamimi, 2020). The three stages are detailed as follows:

Stage 1 includes financial assets within the balance sheet and off-balance sheet accounts that have low credit risk at the date of preparing the financial statements or that did not have a significant increase since the initial recognition of the financial instrument (Orbán & Tamimi, 2020).

Stage 2 includes financial assets within the balance sheet and off-balance sheet accounts which, since their initial recognition, have faced a significant increase in their credit risks but have not reached the stage of default yet due to the lack of objective evidence confirming the occurrence of default (Cohen & Edwards, 2017).

Stage 3 includes financial assets within the balance sheet and off-balance sheet accounts that involve credit impairment. The main indicators or triggers of moving to this stage is the client's significant decrease in economic indicators and bankruptcy (Ernst & Young Global Limited, 2018; Orbán & Tamimi, 2020).

2.3.2. Simplified approach

For financial institutions that have credit risk management systems that are less sophisticated, a simplified approach was introduced so that entities will not have to track changes in the credit risk of financial assets (IFRS, 2020). In this approach, entities are required to recognise a loss allowance only at a lifetime credit loss from the date of initial recognition of a financial asset. The approach, in other words, helps entities that cannot apply the general approach in a manner that is consistent with their capital and financial instruments (IFRS, 2020; Ernst & Young Global Limited, 2018).

Entities are, however, given the right to choose whichever approach they want to apply between the general approach and the simplified approach particularly for: i) trade receivables or contract assets that result from transactions that fall within the scope of IFRS 15 – “Revenue from contracts with customers” and do not contain a significant financing component and ii) all lease receivables that result from transactions which are within the scope of IFRS 16”and IFRS 17 – “Leases” (Ernst & Young Global Limited, 2018).

2.3.3. Purchased or originated credit-impaired financial assets

This approach is less used than the previous approaches. However, under purchased or originated credit-impaired financial assets (often abbreviated as POCI assets), an entity is required to determine whether the asset is credit-impaired on initial recognition of a financial asset (Orbán & Tamimi, 2020). The accounting treatment of assets that are considered to be credit-impaired on purchase or origination is the same as that under IAS 39, in which the holder of the financial asset is required to apply the credit-adjusted effective interest rate (EIR) to the amortized cost from the initial recognition when calculating the interest revenue for the financial assets, taking into account the initial lifetime ECLs in the estimated cash flows. Consequently, no allowance is recorded for 12-month ECLs for financial assets that are credit impaired on initial recognition. The main reason for not recording a 12-month ECL allowance for these assets is that the losses are already reflected in the fair values at which they are initially recognized (Ernst & Young Global Limited, 2018).

2.4. The regulation of IFRS 9

Ocampo, Zamagni, Ffrench-Davis and Pietrobelli (2000) argue that financial systems, such as banks contribute tremendously to the economic development and improvement of living standards of a country by providing various services to the rest of the economy. These include settlement and clearing systems to facilitate trade through channelling financial resources between savers and borrowers, which all deal with risk and uncertainty (Ocampo, et al., 2000). Banks have therefore become the most reliable entities to play a greater role of being the financial intermediary and for their ability to transfer resources from the surplus subject (savers or depositors) to subjects in a condition of financial deficit (investors) (Mishi & Khumalo, 2019). Banks are also considered as the centre of the credit intermediation process between savers and investors, and thus, a strong and resilient banking system is believed to be the foundation for sustainable economic growth (Ocampo, et al., 2000).

It is important to note that banks operate with a high degree of leverage, i.e., the financial resources that they use for their activities which are taken from the deposits of their customers. The banking sector is therefore a highly regulated industry in which they follow strict regulations to maintain financial stability and to ensure that their leverage remains at

an acceptable level as well as to guarantee that the risk of insolvency is minimised by ensuring that their level of capital is sufficient to support their activities (Sanderson, et al., 2017). This means that a financial crisis such as that experienced in 2008 and significant damage to a country's economy can occur, as a result of the failure in the banking role of intermediary.

The regulation of banks is however viewed by Sanderson, Mare and De Jongh (2017) as a two-way process that i) involves supervision to ensure that the activities that banks engage in are in line with set requirements and regulations; and ii) facilitates the monitoring of advances considering prudential requirements. Prudential regulations focus on maintaining financial stability through the control of a single financial subject that operate in the market and usually involve setting systems for managing various risks, setting capital adequacy ratios, liquidity ratios, limits on large credit exposures, etc (Nyantakyi & Sy, 2015). The main objective of these prudential regulations is to guarantee that banks operate in conditions of solidity and solvability. Prudential requirements or regulations include aspects such as the Basel Accords which stipulate the capital requirements that should be held by banks to remain solvent and be able to absorb any systematic shocks (Nyantakyi & Sy, 2015).

2.4.1. The Basel Committee on Banking Supervision (BCBS) and the development of the Basel Accords

The BCBS is the principal global standard-setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters. The main goal of the BCBS is to strengthen the practices, supervision and regulation of banks worldwide to enhance financial stability (Dordevic, Ferreira, Kitonga & Seal, 2021). The prudential regulations of the BCBS have, as a result, a macroeconomic focus whose objective is to ensure that financial systems are stable. They also have a microeconomic focus through which attention is directed to individual financial institutions to prevent them from undertaking too high risks (Lauron, 2018).

The BCBS sets out prudential regulations of banks which have been notably published in a series of accords, commonly known as Basel I, Basel II and, most recently, Basel III (Nagarajan, 2016). There is however a rising perception of the upcoming implementation of the revised Basel III regulation, i.e., Basel IV and it is anticipated to commence in 2022, while full implementation is expected by 2027 (Lauron, 2018).

2.4.1.1. Basel I

Basel I was introduced in 1988. Before its publication, each bank had its risk estimation and capital requirement. The introduction of Basel I presented the basis for bank management

to “secure international convergence of supervisory regulations governing the capital adequacy of international banks” (Mainelli, 2011). The aim of Basel I was to provide general norms to align the different practices used across the countries in order to handle capital management risk posed by the ever-increasing sophistication of bank products and the resultant interconnectedness of the financial industry as well as to create a level playing field for internationally active banks (Dordevic, et al., 2021).

In this context, Basel I introduced the first set of capital requirements to protect creditors in the event of bank failures, to create a disincentive for excessive risk-taking and provide a buffer against bank losses (Beatty & Liao, 2014). The Accord, in furtherance, also introduced a method to measure risk. The methodology was based on a solvability coefficient where the ratio between capital and risk-weighted assets (RWA) could not be inferior to 8% (Beatty & Liao, 2014).

The standard approach of Basel I was not without criticism, however. One of the main criticisms is that its approach for the categorisation of assets was too simple. Moreover, risk weights were, for the most part, arbitrary and did not flow from any particular insolvency probability standard (Dordevic, et al., 2021). In other words, the standard approach of Basel I failed to differentiate between exposures under the same asset class and this negatively affected banks that had a high degree of portfolio differentiation (Mainelli, 2011).

2.4.1.2. Basel II

Basel II was published in 2004 and was formally known as the ‘International Convergence of Capital Management and Capital Standards: A revised framework’, and was set to be implemented by 2008. It was released to overcome the drawbacks of Basel I and for amending the international banking standards that controlled the capital requirement that banks needed to hold to guard against operational and financial risks (Nagarajan, 2016). Moreover, to be more risk-sensitive, Basel II presented different methodologies that banks can adopt to measure risk which included different specifications for special exposures as well as more precise class assets (Beatty & Liao, 2014). This revised approach to credit risk migration (CRM) allowed a wider range of credit risk mitigants to be recognised for regulatory capital purposes than was permitted under Basel I. This regulation aimed to ensure that the amount of capital a bank needed to hold to safeguard its solvency and overall stability was high when the risk that a bank was exposed to is significant (Beatty & Liao, 2014).

Basel II also introduced a three-pillar approach to provide a holistic approach in establishing banks’ capital adequacy (Goodhart, 2010). Under these pillars were additional, adapted and improved guidelines and approaches to risk assessment, capital management, governance

and disclosures for both capital management and risk assessment. The pillars are summarised as follows:

- **Pillar 1** aims to simplify credit risk and to set minimum capital requirements to support the risk undertaken by financial institutions.
- **Pillar 2** comprises of the supervisory review process which allows supervisors to closely monitor the banks' activities and risks and to provide guidance on the minimum amount of capital that should be kept separately by each bank to support the undertaken risk.
- **Pillar 3** focuses on market discipline and requires transparent reporting that enables capital markets to serve as a complementary force to discipline banks' behaviour. According to Mainelli (2011), this pillar supports the first and second pillars by making bank risk taking behaviour more transparent to outside stakeholders. This, in turn, facilitates market discipline which also contributes to a safe and sound banking environment.

The most significant development that came with Basel II was the approach to managing and measuring credit risk via risk-weighted assets (Danielsson, Embrechts, Goodhart, Keating, Muennich, Renault & Song, 2001). This approach allowed banks to choose between two approaches of credit risk assessment, i.e., the standardised approach, which is a prescribed methodology of assigning credit risk and weightings of the RWA or the Internal Rating Based (IRB) approach in which entities could use their internal data to model and assess credit risk. This allowed banks to first categorise their exposures into asset classes and then use risk-specific, bank-specific and environment-specific metrics to model and, ultimately, more accurately assess their risk profile and their counterparty risk (Goodhart, 2010).

Despite the improved approaches to credit risk measurement and management contained in Basel II, the bank regulation came under severe criticism primarily because of the belief that capital adequacy, combined with market imperfections, lead to more pro-cyclical bank lending (Danielsson, et al., 2001). Beatty and Liao (2014) also criticized Basel II, arguing that the principles contained in Basel II led to insufficient capital being raised to deal with enormous off-balance exposures and the build-up of leverage in the trading book to prevent systemic market risk to the financial sector. They further note that there had been a gradual erosion of the level and quality of the capital base and that the loosening of bank regulation under Basel II was a serious mistake given the hindsight offered by the financial crisis (Beatty & Liao, 2014). As such, in response to the ruminations of the financial crisis, the

BCBS reviewed the existing principles and guidelines of the Accord and began to develop new regulations.

2.4.1.3. Basel III

In response to the heavy criticism of Basel II, the BCBS, in February 2011, introduced an immediate corrective regulatory framework which they named the Revisions to the Basel II: Market risk framework or Basel 2.5 (Getter, 2014). This was immediately superseded by the third generation of Basel Accord, named Basel III: A global regulatory framework for more resilient banking, or simply, Basel III. The main impetus of developing Basel III, according to Nagarajan (2016), was to improve the ability of the banking sector to absorb shocks arising from financial and economic stress as well as to strengthen the capital requirements of banks, liquidity, maturity profile, and leverage. The final version of Basel III was however released in June 2011.

This new regulatory framework did not fundamentally change anything of the previous Basel II in terms of the three-pillar approach (Barth & Landsman, 2010). Instead, it introduced some amendments and additional measures whose objective was to; 1) address risk and interconnectedness of the global financial system, 2) reduce pro-cyclicality, 3) supplement risk-based capital requirements, 4) enhance risk coverage, and 5) enhance the quality of capital (Nagarajan, 2016).

The Basel III framework also introduced supervisory guidance for banks on credit risk and accounting for ECL (eight principles) and supervisory evaluation of credit risk, ECL, and capital adequacy (three principles) (PWC, 2016). These supervisory guidelines are outlined in Appendix A.

2.4.2. The supervisory guidance for banks on credit risk and accounting for ECL

The 'Guidance on credit risk and accounting for expected credit losses' was introduced by the BCBS in December 2015. The Guidance outlines supervisory principles on ECL accounting frameworks such as those introduced in IFRS 9 with the goal being that of achieving sound credit risk practices (Bellini, 2019). The purpose of the Guidance is not to contradict the applicable accounting standards that IFRS has established, but instead, seeks to provide the BCBS's view of how the standards can be appropriately applied (Bellini, 2019). As stated earlier, the Guidance is structured around 11 principles and it also sets key accounting aspects that are required in accounting for ECLs in IFRS 9. These key accounting aspects include but are not limited to, supportable and reasonable information, consideration of forward looking information and the assessment of SICR (PWC, 2016).

2.4.2.1. Supportable and reasonable information

This principle stipulates that the measurement and accounting of ECLs should reflect relevant, reasonable and supportable information that is available without undue cost or effort, time value of money (i.e., discounted to the reporting date) and probability-weighted outcome (i.e., reflecting the possibility of whether or not a credit loss occurs) (PWC, 2016). It is also important to bear in mind that both the amount and the timing of payment are taken into account in ECLs. This means that credit loss can arise even if the holder expects to receive all the contractual payments due, but at a later date (Sy, 2017).

2.4.2.2. Consideration of forward looking information

Critical to the timely recognition of ECL, and also a distinct feature of the ELC model is the consideration of forward looking information, or simply put, macroeconomic factors. Forward looking information consists of economic forecasts which are essential to the measurement of ECL because their probability of occurring is relatively low, and their effect on the amount of ECL and credit risk is uncertain (PWC, 2016). Sy (2017) acknowledges that in certain, exceptional circumstances where forward looking information is speculated to be biased, or may not be supportable and reasonable, robust and clearly documented justification need to be provided. Forward looking information also needs to be consistent with information such as budgets, financial statements, capital and strategic plans used in the reporting and managing activities by the financial institutions (PWC, 2016).

2.4.2.3. Assessment of significant increase in credit risk

When assessing SICR in initial recognition, entities should refrain from using the change in the amount expected of ECLs but should use the change in the risk of the default occurring instead (PWC, 2016). The definition of default should, therefore, be considered in this case.

i. Definition of default

IFRS did not introduce a new definition for default, instead, it introduced an assumption that a financial asset is characterised as defaulted when it goes past due by more than 90 days (Frykström & Li, 2018). The main aim of this rule was to prevent financial institutions from not defining default later than 90 days without the required relevant information having previously been collected. It should however be noted that the qualitative criterion of default that refers to the unlikelihood to pay (UTP) still applies and is also supplementary to the quantitative criterion of 90 days past due (Orbán & Tamimi, 2020). Furthermore, in cases where the definition of default for accounting and regulatory purposes differ, two possible outcomes should be considered. These are assets in stage 2 that are not yet defaulted (according to the accounting standard) and assets in stage 3 that are defaulted (according to regulatory

approach). The bank will therefore need to justify why the credit-impaired financial asset is not in regulatory default and vice versa (Frykström & Li, 2018).

2.5. The interaction between BCBS and IFRS 9 ECL provisions

As mentioned before, IFRS 9 is an accounting standard that deals with the impairment of assets and requisite provisions, whereas the Basel Accords set out requirements for capital adequacy (Barth & Landsman, 2010). Because both provisions and capital are raised via bank income, both IFRS 9 and the Basel Accords impact a financial institution's operational and financial functioning. This means IFRS 9 and the Basel Accords are closely intertwined as they both have a direct effect on each other's requirements (Barth & Landsman, 2010; Bushman & Landsman, 2010). The use of financial statement information by regulators to calculate regulatory capital numbers and their reliance on market participants to trade on this information to discipline banks shows that they cannot operate in isolation of each other (Novotny-Farkas, 2015).

Figure 2.3. outlines the key differences between the IFRS 9 impairment model and the Basel credit risk models. As highlighted in the Figure, the Basel guidelines can be used for IFRS 9 under the conditions that significant adjustments are made, such as adjustment of the model of the expected life of the financial instruments and the correction for the point in the economic cycle for the through-the-cycle (TTC) measures.

Figure 2.3: Key model parameter differences of Basel and IFRS 9 models¹

	Key risk parameter	Basel III	IFRS 9
Probability of Default (PD)	Measurement standard	Average of default within the next 12 months	Depending on the asset, the PD measures either for the next 12 months (stage 1) or for the remaining life of the financial instrument (stages 2 and 3)
	Period of measurement (look-back period)	Estimates based on long-run average default rate, ranging from "point-in-time" (PIT) to "through-the-cycle" (TTC)	Estimates based on PIT measures, at the reporting date, of current and expected future conditions reflecting future economic cycles
Loss Given Default (LGD)	Intention of estimate	"Downturn" LGD to reflect adverse economic scenarios	"Current" or "forward-looking" LGD to reflect impact of economic scenarios
	Collection cost	Considers both direct and indirect cost associated with collection of the exposure	Only considers cost directly attributable to the collection of recoveries
	Discount rate	Based on weighted average cost of capital or risk-free rate	Depends on the type of financial instrument but is broadly based on effective interest rate
	Period of observation	Minimum five years for retail exposures, seven years for sovereign, corporate, and bank exposures	No specific requirements about observation period or collection of historical data used
Exposure at Default (EAD)	Intention of estimate	"Downturn" EAD to reflect what would be expected during a period of economic downturn	Considers all the contractual terms over the lifetime of the instrument
	Period of observation	Minimum five years for retail exposures, seven years for sovereign, corporate, and bank exposures	No specific requirements about observation period or collection of historical data used
Expected Loss/Expected Credit Loss (ECL)	Calculation	$PD \times LGD$ (loss rate) is applied to EAD	$PD \times PV$ of cash shortfalls represents a probability-weighted estimate of credit losses
	Economic assumptions	Reflects downturn LGD and EAD (factoring in macroeconomic stress conditions)	Reflects an unbiased probability-weighted amount, determined by evaluating a range of possible outcome

Source (Temim, 2018)

¹ The phase Point in time (PIT) is used to estimate default risk and loss rates over time, which are derived based on the occurrence of a particular credit factor and macroeconomic scenario. Downturn LGD reflects the losses occurring during a downturn in a business cycle for regulatory purposes and PV is an acronym for present value.

The BCBS acknowledges that banks may have well-established regulatory capital models for the measurement of expected losses. Therefore, the regulatory and supervisory frameworks proposed by the BCBS, as Edwards (2014) argues, conservatively interpret the IASB's requirements. Thereby signalling that highest quality standards must be met by entities when implementing IFRS 9 to satisfy supervisory expectations. This convergence offers opportunities and challenges in integrating the calculation process of loan loss provisions with the regulatory requirements under Basel and it is these implementation and practical implications that this study seeks to explore (Edwards, 2014).

Because the objective of IFRS 9 is to ensure that risk taking activities are minimised and that sound and relevant information that is accurate to creditors, investors and supervisory authorities is provided, it is also crucial that banks are in compliance with supervisory rules and requirements (Temim, 2018). The BCBS, therefore, recognises that proportionate approaches must be adopted by supervisors to enable banks to adopt sound allowance methodologies commensurate with the risk profile, economic significance, structure, complexity, size and all other relevant facts and circumstances (Vousinas, 2015). To effectively implement these approaches, banks are required to apply the supervisory guidelines that are provided in the three pillars of Basel II – which require the maintenance of a minimum regulatory capital requirement as a hedge measure to support the risk undertaken by financial institutions (Pillar 1); a supervisory review process which allows supervisors or prudential authorities to evaluate bank's risk management strategies (pillar II) and the transparent financial reporting through disclosure of details of a bank's financial exposures, capital adequacy ratios and risk assessment processes to ensure market discipline (pillar III) (Vousinas, 2015).

2.6. The post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa

Scholarly contributions that have a direct bearing on the study, i.e., literature about the post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa, is by no means exhaustive and very limited in number. What is also important to note is that most of the literature on the subject was published before IFRS 9 became effective in January 2018. As such, literature that was published at this time, as Paget-Blanc (2020) argued, is nascent and mainly provides anecdotal evidence of the actual impact of IFRS 9. However, the work by Paget-Blanc (2020) and Lejard, Paget-Blanc, and Casta (2021) is one of the few recent works of literature on the subject that constitute the first post-implementation tests of the adoption of IFRS 9 by banks, and as such, have been highly instrumental to this study in providing an understanding of how banks have been faring since the IFRS 9 standard officially came into force.

For instance, the study by Paget-Blanc (2020) which aims to investigate the effect of the adoption of IFRS 9 on bank's capital by looking at an array of banks around the world, revealed that the introduction of IFRS 9 has generally affected the provisioning practices of banks. The results of the study also revealed that the adoption of IFRS 9 translated into losses for banks and the magnitude of the impact (in terms of the negative effect of the adoption of IFRS 9 and the challenges faced) has mostly been manageable but also significantly different between the banking entities. The work by Lejard, et al (2021) investigates the same issue but also suggests that the comparability of provisions across banks has been altered due to the heterogeneity of provisioning practices which increased with the switch to IFRS 9. Both these studies, however, provided the researcher with a focal point basis of understanding how the adoption of IFRS 9 ECL models affected financial institutions, both positively and negatively, as well as how the degree and nature of these impacts differed across financial entities. This, in turn, allowed the researcher to have an open mind in conducting the research and to be prepared to obtain knowledge and information without bias. Being that as it may, literature that was published before when the standard came into force in January 2018 cannot be completely discarded as it also has been very useful in forming the theoretical basis of this study.

The most useful of such scholarly literature, however, is the article by Gatson and Song (2014) titled *Supervisory Roles in Loan Loss Provisioning in Countries Implementing IFRS* which provides an overview of the IFRS 9 transition from IAS 39 and the differences between the two standards. The article details the factors that influenced the process as well as the anticipated benefits of adopting and implementing the new standard, vis-à-vis, IFRS 9. Other scholarly works of literature that have been useful in this regard include the works of Cohen and Edwards (2017), Frykström and Li (2018), Onali and Ginest (2014), Gebhardt and Novotny-Farkas (2018) and De Haan and Van Oordt (2018). Table 2.1. provides a brief synopsis of what each of these studies entails. Although most of these studies have different aims and objectives, they mostly cover similar grounds, especially on how banks and financial institutions have maintained an opportunistic behaviour with regards to how the introduction of IFRS 9 potentially helps to solve the problems presented by the use of IAS 39. These academic sources have, therefore, been indispensable in this study, particularly in guiding the uninitiated reader, i.e., the researcher, through all the conceptual, theoretical and qualitative implications and processes of IFRS 9.

Table 2.1. Summary of past research

Author(s)	Year published	Summary of the study
Cohen and Edwards	2017	This BIS Quarterly Review provides a theoretical context of IFRS 9 which stipulates the provisioning of ECLs from the time a loan is originated. It also encourages various stakeholders, such as supervisors, banks and market participants to prepare for their respective trials to effectively implement the new approach.
Onali and Ginesti	2014	This study specifically looks at the pre-adoption market reaction of the IFRS 9 model and highlights that the standard was positively perceived particularly by investors. The results of the study found that investors viewed IFRS 9 as a mechanism that would address problems that were inherent in IAS 39, and that cross-country differences in the impact of the new standard are to be expected.
Gebhardt and Novotny-Farkas	2016	This study investigates the shift from IAS 39 to IFRS 9 to determine how cross-country comparability and predictive ability of loan loss allowances are affected. The role of supervisors in determining how the shift affects financial statements is also investigated through which differences are found in countries, especially where supervisors are reluctant to enforce the IFRS 9 model.
De Haan and Van Oordt	2018	The study uses supervisory microdata to examine the timing of loan loss provisions during the 2008 financial crisis. Their findings suggest that the provisioning behaviour of banks are generally procyclical with fluctuations in the economic cycle.
Novotny-Farkas	2016	This study investigated provisions for loan losses as reflected in IFRS 9, specifically in regards to the

		interaction between the provisions of the standard with the rules on bank supervision, and the relative implications for financial stability. The study also concluded that desired positive results from the IFRS 9 model can only be achieved with the concerted effort of all stakeholders and only if its rules are applied correctly, consistently and with sound judgement.
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Besides looking at the transition of IAS 39 to IFRS 9, a strand of literature that predominantly surfaced included works that studied the effects and impacts of the adoption of IFRS 9. For example, Cohen and Edwards (2017) in their article called *the new era of expected credit loss provisioning*, state that the common challenge of IFRS 9 is that it requires complicated calculations, with the use of large amounts of data, to be conducted in a short period. Similar work includes the article by Nagarajan (2016) who discusses the different accounting and regulatory approaches (IAS 39 and IFRS 9) in loan loss provisioning and the challenges supervisors face given the diverging perspectives or lack of guidance from IFRS. Charles, Shipilov, and O'Donnell (2017) also add that IFRS 9 provides a flexible but robust infrastructure system that significantly increases the complexity of the credit risk systems and model of the credit institutions. This is also aggravated by the large amount of historical, current and forward looking data which is needed to build a model upon which judgement can be based concerning expected losses. The implementation of IFRS 9, therefore, introduces operational risks as complex models need to be built, vetted, and maintained, coupled with the use of significant judgement and estimations, to calculate loan loss numbers and new allowances (Charles, et al., 2017).

To explain the importance of sound judgement and estimations when provisioning and calculating ECLs, Balla, Rose, and Romero (2012), Novotny-Farkas (2015) and Albuquerque, Morais, and Pinto (2020) reveal that bank supervisors may play an integral role in the implementation of IFRS 9. Novotny-Farkas (2015) however, concludes that the potential benefits of the new ECL model depend on the supervisor's adequate and consistent application of the standard in all jurisdictions. Albuquerque, et al (2020), on the other hand, reveal that banks from countries with supervisory power which is high disclose more information about loan loss provisions. Danyluk, Vendette and Lam (2020) who investigated the impact of IFRS 9 on large UK banks, also concludes that the new standard allowed banks to make different judgements when modelling IFRS 9 impairment provisions. Notable examples of different judgements include aspects such as the responses to Brexit

uncertainties, multiple economic scenarios (MES) structure and weightings, the SICR thresholds implemented, sensitivity analysis disclosures, revolving facility expected lifetime assumptions and other and other IFRS 9 impairment provision overlays/PMA's (Onali & Ginest, 2014). These different approaches to judgments in loan loss provisioning and measurement reveal the situational application of the IFRS 9's ECL model and this was demonstrated by the recent COVID-19 pandemic in which banks and financial institutions had to re-evaluate and make the appropriate regulatory and supervisory judgement to deal with the impact of the pandemic (Awad, Ferreira, Gaston & Riedweg, 2020; De Araujo, Cohen & Pogliani, 2021; IMF-World Bank staff team, 2020).

From the analysis of these scholarly works, it can be argued that the implementation process, effects, impact and challenges of IFRS 9 vary from institution to institution and from country to country (Onali & Ginest, 2014; Gebhardt & Novotny-Farkas, 2018; De Haan & Van Oordt, 2018; Paget-Blanc, 2020). Most studies that have conducted surveys on the subject matter have, however, examined the issue whilst looking at banks in various countries. Cohen and Edwards (2017) identified such studies in their research and captured views from 91 banks situated in the Asia-Pacific region, Canada, Europe, the Middle East and Africa – including 16 global systemically important financial institutions (G-SIFIs). Similar surveys were performed by the European Banking Authority (EBA) in 2016 which published a report on the progress on the implementation of IFRS 9 of over 50 financial institutions across the European Economic Area. In the same year, PricewaterhouseCoopers UK (PwC) also analysed the impact of IFRS 9 on capital and provisions by surveying 43 institutions in 10 countries (Cohen & Edwards, 2017). Although these works are highly instrumental in guiding the study, it can be argued that examining various countries provides a general analytical overview of findings, which in a way, ignores the situational factors that each country faces; and this raises questions on the validity of the effects, impacts, challenges faced by the entities in their specific countries.

Paget-Blanc (2020) therefore emphasizes the importance of a country specific factor when examining the implementation of IFRS 9. Ntaikou, et al (2018) also concur with these sentiments, arguing that although banks are broadly aligned in their application of certain key areas of IFRS 9 impairment modelling judgements, some divergences may occur which may, in turn, raise questions about the comparability of provisions across banks in different countries. As such, what makes this study significant is that it investigates the implementation and practical issues of loan loss provisioning under IFRS 9 with the sole focus being on South Africa. In other words, the scarcity of empirical studies on the subject matter underpins the rationale of this study and is a gap that this study intends to address.

2.7. Conclusion

Having revealed that there is a substantial lack of literature on the post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa, it can be argued that this deficiency reinforces the significance of such a study, especially because the study potentially contributes to the accounting and regulatory literature. The following chapter will delineate the methodology that this study has employed and will also examine why and how the chosen methodology is regarded as the most suitable to succinctly answer the research questions and to also achieve the aim and objectives of the study.

CHAPTER 3

RESEARCH METHODOLOGY

3. Introduction

Research methodology, as described by Scholtz, De Klerk and De Beer (2021) and Easterby-Smith, Thorpe and Lowe (2008) is the rationale for and analysis of a particular method or methods used to acquire knowledge and information in a given study. The methods are generally based on scientific principles and their scope can either be restrictive when using mathematical, scientific and objective procedures or can be wide and broad when using unstructured and subjective procedures (Creswell, 2014). Although it is imperative to have a well-defined research methodology, there is a lack of a universally agreed research methodological practice. As such, it is suggested that researchers should strive to have a well-constructed methodology that fully comprehends the products and processes of their scientific enquiry (Creswell, 2014). A typical methodology should however include the research approach, data collection process, methods, sampling framework, data analysis and presentation (Easterby-Smith, et al., 2008). This section, therefore, seeks to unpack the relevant research methods and approaches for this study. Through the discussion, the researcher establishes the rationale and justifications for the research processes and choices employed in the study (Leedy & Ormrod, 2016).

3.1. Research philosophy

How people perceive and comprehend the world is used by researchers as a roadmap that helps them to examine and acquire knowledge about world realities and phenomena (Nieuwenhuis, 2016). This is often done in consideration of philosophical issues which researchers use to guide them towards a particular solution or opinion which, in turn, defines their overall research methods and strategies. Considering that the research process is dynamic and complex, researchers are encouraged to consider their philosophical choices carefully so that their research is an informed one (Saunders, Lewis, & Thornhill, 2009). However, there are two main research philosophies that should be considered in any research namely; ontology and epistemology.

3.1.1. Ontology

The systematic explanation of being, i.e., what exists or may exist, is generally understood as a component of ontology and the term is used in research to capture how individuals perceive and define what is real (Saunders, et al., 2009). Given this, the most important aspect that researchers should consider when taking an ontological stance is whether the study is objective or subjective. The objective stance assumes that social realities are built on social constructions based on social actors' perceptions and actions (Bryman & Bell,

2015; Cronje & Burger, 2006). Objectivism, in other words, is considered an ontological aspect in which reality is viewed as inherently shaped by interactions and norms of social actors. The subjective stance, on the other hand, holds the assumption that social realities and phenomena cannot be based on universal truth because through interactions, consequent actions, and experiences, social actors tend to construct and define realities differently (Bryman, 2012). Given this light, this study takes on a subjective stance instead of an objective one because it allows the researcher to uncover knowledge about the post-implementation and practical issues of loan loss provisioning under IFRS 9 in South Africa through interaction from different individuals.

3.1.2. Epistemology

Epistemology is referred to as the theory of knowledge and is concerned with how people acquire knowledge about their realities and the world. Epistemology, in other words, considers the different ways or strategies of discovery that researchers can use to gather data (Easterby-Smith, et al., 2008). Epistemology, therefore, raises concern on the various realities it validates which, in turn, raises questions about what can be accepted as truth about a particular phenomenon or study. The epistemological stance of this study is therefore based on the researcher's need to acquire empirical knowledge primarily through the experiences, beliefs and expectations of human participants with regards to the implementation and use of IFRS 9's ECL model. The truthfulness of the data gathered from the study will be examined through a process of validation, corroboration and deduction of facts (Rawnsley, 1998).

3.2. Research paradigm

A research paradigm is a lens through which realities and the world are viewed. Due to the different meanings that people apply to different situations, the lenses and assumptions used to see the world and its nature are also different (Collins, 2010). A research paradigm, in other words, informs research through a set of assumptions, beliefs and values that a researcher holds concerning the nature and conduct of research (Collins, 2010).

There are two common paradigms in research which include positivism and interpretivism. Positivism is defined by Saunders, et al (2009) as a scientific enquiry that views the source of knowledge as humans through their experiences and interaction with each other. Positivism also assumes that knowledge is obtained in an observable, regular, determined manner and, as such, the paradigm is arguably deterministic as it supports facts and verifiable ideas as reality and truth (Collins, 2010). On the other hand, interpretivism, which is an antithesis to positivism, is defined as a process of enquiry that looks at how individual experiences are shared depending on how they view and make sense of the world. In other

words, this paradigm views knowledge or realities as subjective and relative (McKee, 2003). Truth is, therefore, treated as provisional and ever-changing, depending on time and space. Knowledge and reality are also viewed as never absolute because the experiences, viewpoints and perceptions of individuals differ from one person to another (McKee, 2003; Maree & Pietersen, 2016).

Based on this backdrop, this study will employ an interpretive approach because it allows the researcher to engage in an interactive inquiry where different viewpoints are inevitable to obtain, and where interpretation of data or phenomena is based on the terms of the deferent meanings that people ascribe to.

3.3. Research approach

Qualitative and quantitative research are the two main research approaches in research. Although the approaches are distinct from each other and have separate underpinnings in terms of theory and practice, they are sometimes used in complementation to each other as mixed methods (Eldabi, Irani, Paul & Love, 2002). Quantitative research generally focuses on numerical, quantifiable or statistical measurements and variables in order to generalise outcomes and patterns such as behaviour, motivation, emotion or cognition (Farnsworth, 2019). This research approach is mostly used in research that involves a rigid and standardised scientific approach such as those that use structured interviews, experiments, surveys and behavioural observation as methods of data collection (Farnsworth, 2019).

Conversely, qualitative research is an approach that allows the researcher to describe and explore phenomena in detail by focusing on the meanings, realities, experiences and perceptions of individuals (Denzin & Lincoln, 2005; Neuman, 2006). Given this, this study will employ qualitative research because it does not involve the use of numerical variables and measurements that quantitative research prescribes. The qualitative research approach, in essence, allows the researcher to conduct this study in a holistic manner and in a natural or real-life setting without manipulation through interactive exploration and discovery, thereby allowing the researcher to gain a comprehensive understanding of the phenomenon under study (Neuman, 2006).

3.4. Population and study sample

According to Johnson and Scholes (2001), the population of a study refers to the collection of objects, individuals or entities that is well-defined and have common and binding traits or characteristics. As such, the target population for this study are financial institutions, particularly banks and auditing firms in South Africa. The study sample, which is a predetermined and specific portion of the population whose properties will be used to collect

data from (Mugo, 2002), are banking supervisors, internal and external auditors as well as accountants.

3.4.1. Sample size

The sample size for this study is a total of ten participants. This is because qualitative research methods typically require a smaller sample size, as long as the sample is adequate to obtain enough data to sufficiently address the research and meet the objective of the study (Creswell, 2014). The use of a small sample size in this study is also consistent with other studies on the same topic that were conducted in the past. For example, in a study by Sangiumvibool and Arunruangsirilert (2018) which aims to understand the viewpoints of experts on the concerns of IFRS 9 implementation, seven Thai bank senior officers at the upper management levels were purposively selected and interviewed to obtain the research data. A study by Marzuki, Rahman, Marzuki, Ramli and Abdullah (2021) also conducts ten series of semi-structured interviews with key individuals from audit companies, regulatory bodies, Malaysian higher learning institutions and full-fledged Malaysian Islamic Banks to investigate the effects and challenges of IFRS 9 in Malaysia. Finally, although this study used a mixed-methods approach, Chedid and Chaya (2020) conducted seven in-depth interviews with members of regulatory bodies to explore the implementation of IFRS 9 in terms of improvements and difficulties faced in Lebanese banks. These three studies reveal that the use of a small sample size is an inherent aspect of qualitative research studies of this nature, and is therefore not a threat to the reliability and validity of this study. In addition to this, the researcher believes that the sample size of ten people will be sufficient enough to attain all the relevant information and to reach data saturation.

3.4.2. Sampling technique

There are numerous types of sampling techniques and researchers need to understand their differences in order to select an appropriate sampling method for the research (Farnsworth, 2019). Burger and Silima (2006) state that sampling techniques are classified into two categories; either probability sampling or non-probability sampling. Probability sampling, which is also known as random sampling, is a method that is used to randomly select a sample from a population. Through this technique, the likelihood or chance of being selected to take part in the research is high (Farnsworth, 2019). Unlike probability sampling, non-probability sampling, which is also known as non-random sampling, is more reliant on the preferences of the researcher. This means that the equal selection of samples in a population in non-random sampling is not possible because the researcher is required to be intentional in their selection by applying subjective judgement (Bezuidenhout, Davis & Du Plooy-Villiers, 2014).

In this study, however, the selection of participants was based on their capacity as individuals who fully understand and have got experience in using IFRS 9 ECL models in loan loss provisioning. It was also based on their capacity as individuals to understand the technicalities, logic and appropriate measures needed for the appropriate implementation of the new standard, and most importantly, because of their availability and willingness to participate in the study. Two types of non-probability sampling typically explain the basis of the subjective judgment used in this selection process. These include convenience sampling which refers to sampling based on the availability and accessibility of the participants (Burger & Silima, 2006), and purposive sampling, which refers to a method of selection of respondents who possess the characteristics of interest to the study (Burger & Silima, 2006). The use of convenient and purposive sampling in this study minimised the possibility of selecting participants who do not fit the criteria required for the successful completion of the study (Bezuidenhout, et al., 2014).

3.5. Data collection method

Because IFRS 9 is a relatively new standard, there are some limitations concerning the availability of sources. As such, primary data, in the form of semi-structured interviews will be conducted as the primary method of data collection. Semi-structured interviews allow the researcher to establish a dialogue with the participants by allowing the use of modifications, adaptations and probing in the data collection process (Bryman & Bell, 2015; Galletta, 2013).

The semi-structured interviews were conducted virtually instead of face-to-face due to the Covid-19 lockdown regulations and social distancing rules. The semi-structured interviews were also recorded and individually transcribed to secure an accurate account of the interview and to avoid losing data. Recording interviews is considered an important practice because data analysis and interpretation might not be done effectively and without errors by merely jotting down notes during the interview process (Galletta, 2013).

On the other hand, secondary data in the form of regulatory reports, annual reports, financial reports, transition reports, commentaries, speeches and policy briefs were used in the compilation of the literature review, as well as to complement the responses from the participants and to support the findings within this study.

3.5.1. Interview guide

An interview guide was used to guide and direct the researcher in preparing the interview questions (Lewis-Beck, Bryman & Liao, 2004). An interview guide is essential to any research because it helps researchers on how to pose questions, what to ask about, in what sequence

and also in determining the time frame each interview might take (Lewis-Beck, et al., 2004). The interview guide for this study is provided in Appendix B.

3.6. Data analysis

Data analysis is a process that involves analysing, classifying and arranging qualitative evidence to empirically draw conclusions from the data collected (Kennett, O'Hagan & Cezer, 2008). The aim of data analysis is, therefore, to extract meaning from the collected data and to systematically put it in order and come up with a structure that addresses the research questions and objectives (Kennett, et al., 2008). In this study, the thematic analysis technique will be used as a method of data analysis. This method, as Braun and Clarke (2006) purport, involves various steps which start from the process of familiarising with the data, to generating codes and themes, and finally critically analysing the themes to produce a report. Creswell's (2014) guidelines were used to analyse the data using thematic analysis. The step-by-step process of this data analysis technique is detailed as follows:

Step 1: The thematic analysis process commenced by preparing and organising the data by reading notes and listening to the recordings of the interviews for the researcher to familiarise themselves with the data.

Step 2: The researcher then transcribed the data while listing key ideas and arguments.

Step 3: The researcher then began the coding process with the intention of breaking down the key ideas and arguments into units to systematically develop categories that would be put together for interpretation and for building arguments. There are three types of coding (open coding, axial coding and selective coding) that the researcher employed, and these were applied in a step-by-step approach during the data analysis process:

- Open coding is the preliminary coding process where the data is broken down into distinct portions to create codes and then label them. The purpose of open coding is to allow the researcher to compare and contrast key ideas and arguments within the data (Creswell, 2014).
- Axial coding is the second step of coding and it involves organising the codes developed in open coding and grouping them into categories. Axial coding aims to identify the relationships between the categories of concepts emerging from the data analysis (Creswell, 2014).
- Selective coding is the final step where the categories are connected to capture the essence of the research. These categories are then converted into themes, provided there is enough data to support them (Creswell, 2014).

Step 4: Finally, the write-up process of the research report began.

Apart of thematic analysis, content analysis will also be conducted in this study. Content analysis is defined by Bengtsson (2016) as a research technique that “provides a systematic and objective means to make valid inferences from verbal, visual, or written data in order to describe and quantify specific phenomena”. This study will, however, analyse content from regulatory reports, annual reports, financial reports, transition reports, commentaries, speeches and policy briefs of banks in South Africa and other relevant sources to supplement and validate the findings obtained from the interviews

3.7. Pilot study

Pilot interviews were conducted in this study using two acquaintances working in the accounting field. The aim of conducting the pilot study was to reduce the margins of error around the study especially errors in regards to the complexity, uncertainty and ambiguity of the interview questions (Bryman & Bell, 2015). The pilot study was also necessary to conduct because of the belief that the absence of standardization in semi-structured interview questions might run the risk of the interview ending up being a typical conversation that may stray outside its goal (Denzin and Lincoln (2005). By conducting a pilot study, these concerns were avoided, error margins were eliminated and changes were made accordingly.

3.8. Reliability and validity of the study

The component of reliability and validity in qualitative research refers to the balanced and comprehensive use of research methods in a study (Leedy & Ormrod, 2016). The aspect of reliability, as Noble and Smith (2015) proclaim, “establishes the consistency of a research instrument in that the results it achieves should be comparable in similar circumstances.” It should however be noted that during any interview session, participants provide different responses as it would be virtually impossible for participants to replicate responses. This means that achieving reliability can be challenging because each interview is unique in its own way (Conway, Jako & Goodman, 2005). To overcome this drawback, the researcher took full control of the study by conducting the interviews personally and following a similar process for each interview. Although with some probing, semi-structured questions listed in Appendix C were asked in each interview to maintain consistency in the interview process, hence, ultimately achieving reliability.

With regards to enhancing the validity of the research, the researcher believed that the rigour of the data collection and subsequent data analysis technique that was used gives validity to the findings, conclusions and recommendations of the study. More specifically, validity was achieved by ensuring that the selected research sample was relevant and representative;

and that the methods of data collection were consistent throughout the process with all participants. The use of experts in the interview process and the knowledge they provided also enhanced the reliability of the findings in the study.

The reliability and validity of this study are also enhanced through the use of data collection and data analysis methods that have also been used in other studies in the past such as those conducted by Novotny-Farkas (2016), Chedid and Chaya (2020), Humblot (2018) and Lejard, et al (2021).

3.9. Ethical consideration

Critical to every research which involves human interaction are ethical issues (Starman, 2013). Research ethics protect the rights and integrity of participants by distinguishing what is acceptable and unacceptable behaviour. A number of ethical principles should therefore be considered to avoid ethical impasse (Leedy & Ormrod, 2016; Golafshani, 2003). Specific to this are principles such as the voluntary participation of the research participant, informed consent, the protection of their privacy, dignity and any kind of harm that need to be considered when conducting research (Starman, 2013; Leedy & Ormrod, 2016).

In efforts to follow these ethical principles, the researcher obtained informed consent from the participants before the interviews were conducted. By signing the consent form, the research participants acknowledged that their participation in the research was purely voluntary and no coercion or enticement of any manner was used to make them take part in the study. In addition to this, all participants were fully briefed about the requirements and expectations of the research before the commencement of the interviews and before signing the consent forms.

Confidentiality and anonymity of the participants were also guaranteed during and after the research process. Confidentiality was attained by maintaining the privacy of the participants and the information attributable to them. All identifiable information about the participants is therefore protected and agreements on how people could access and control the information gathered have been made. The recordings of the interview were held in a safe and secure place throughout the research process and will be destroyed when the research report has been completed and submitted to the university. Moreover, following Bryman's (2012) assertion that anonymity should provide data that is impossible to trace back to the research participants or to where the information was obtained from, pseudonyms were used instead of real names and no identifiable or personal material were recorded during the interview and data analysis process.

Furthermore, the researcher ensured that neutrality was maintained throughout the interview and data analysis process to avoid bias and misinterpretation of data; and the data gathered from the interviews was also transcribed without manipulation and prejudice. Last but not least, the researcher ensured that the data gathered from the interviews will not be used anywhere else other than in this research study.

3.10. Conclusion

From the discussion in this chapter, one can argue that the research methods and strategies outlined are not entirely distinct from each other. Instead, they complement each other, and depending on the methodology or approach taken, can be used in connection with each other. This chapter, however, highlighted that the study employed a qualitative research approach through which semi-structured interviews were conducted. The qualitative research approach also enabled the researcher to take an epistemological and interpretive stance because they allow information or data to be collected interactively and subjectively. The chapter also identified that the data gathered during the interview will be analysed using the thematic data analysis technique. The findings that were identified will be discussed in detail in the chapter that follows.

CHAPTER 4

FINDINGS AND DISCUSSION

4. Introduction

This chapter seeks to present and analyse the findings that were gathered during the interview process. The purpose of conducting the in-depth semi-structured interviews was to investigate the post-implementation and practical issues that are currently being faced when accounting for ECLs under IFRS 9 in South Africa. When analysing the data gathered from the interview process, statements that reflect the category of data required to answer the research questions were highlighted using codes and themes. In total, four themes were identified, which include i) the transitional process, ii) the impact of the transitional process, iii) governance, processes and controls and iv) IFRS 9 impairment modelling judgements. These themes will be discussed at length in this chapter with the support of verbatim extracts gathered from the semi-structured interviews.

Before presenting the findings, a 'behind the scenes' scenario of the data collection and data analysis process will be provided to obtain a clear understanding of the adequacy, value and richness of the gathered data. A brief description of the interview process, i.e., the characteristics and demographics of the research participants with regards to their position and qualifications and work experience in the field of study will therefore be outlined. The primal reason for specifically highlighting the position and experience of the participants selected in this study is to determine whether the participants are optimally representative, relevant and knowledgeable to the issue under study as this contributes to the research's validity, reliability and credibility.

4.1. A 'behind the scenes' scenario of the data collection process.

The findings presented in this study are based on ten in-depth semi-structured interviews that were conducted over four weeks of data collection activity. The participants were contacted and invited to participate in the study both through informal and formal means, i.e., through emails and WhatsApp platforms. The participants were all provided with a detailed explanation of what would be involved in the interview process if they agree to participate and it was made clear that their participation will be based on a voluntary basis alone and that no gifts or incentives of any sort will be provided for their participation.

Due to Covid-19 restrictions and for safety reasons, the interviews were all conducted virtually using Zoom and WhatsApp Calling and Video. Being that as it may, the virtual interviews were reasonably successful in terms of the response rate as all ten participants managed to take part in the study. Each interview lasted approximately between 30 minutes to an hour and

were all voice-recorded and fully transcribed. For the assurance of confidentiality and anonymity of the research participants, pseudonyms were used and, therefore, will be identified, as an example, as Respondent A in the study.

4.1.1. Characteristics of participants

The background characteristics of participants were found to be particularly important to consider during the data selection and data collection process. Of most importance to the researcher were characteristics of the participant's position, place of work, professional qualification and work experience. These characteristics specifically depict the number of years that a participant has worked and are an important factor not only for considering the aspect of experience in the industry but for assurance of their familiarity with the use of both IAS 39 and IFRS 9. These characteristics are provided in detail in Table 4.1.

Table 4.1: Interviewee characteristics

Interviewee pseudonyms	Name of company	Position held	Professional qualification	Work experience
Respondent A	Nedbank	IFRS Advisory and Special Projects	CA (SA) / Mcom (Accounting)	10 years
Respondent B	SNG Grant Thornton	Audit Manager	CA (SA)	7 years
Respondent C	KPMG	Audit Manager	CA (SA)	11 years
Respondent D	KPMG	IFRS Advisory Manager	CA (SA)	8 years
Respondent E	Standard Bank Group	Team Supervisor	Mcom Accounting	15 years
Respondent F	SNG Grant Thornton	Audit Consultant	Bcom (Acc)/ PgDip(Acc)	5 years
Respondent G	ABSA Group	Banking regulatory capital specialist	CA (SA) / Mcom (Accounting)	9 years
Respondent H	Standard Bank Group	Senior Capital Management and Regulatory Specialist	CA (SA)	7 years
Respondent I	Nedbank	Consultant Group IFRS Advisory	CA (SA)/ ACMA/ CGMA	9 years
Respondent J	Nexia-Sabt	Audit Manager	CA (SA)	8 years

Source: Adapted by the researcher

Altogether, these characteristics illustrate that the selection of participants was not random, but instead, involved a deliberate selection through the use of both purposive and convenience

sampling. This selection process was important for providing context and substance to the collected data, findings and conclusions due to the participant's ability to understand the questions, what the study requires and because of their ability to provide relevant and sufficient answers due to their extensive experience, competence, knowledge and deep understanding of the subject under study.

Because of this deliberate and calculative selection process, the researcher is confident in the data provided by the participants. Furthermore, the purposive and convenient sampling techniques that were used enabled the researcher to interview a small number of people, as expected in qualitative research approaches. The total number of interviewed participants was therefore enough to achieve data saturation, thus providing the researcher with the confidence that the aggregate findings in the study are sufficient and representative.

4.2. Data analysis procedure

As mentioned before, the thematic data analysis technique was used to analyse the data that was gathered from the semi-structured interviews. Eight questions were asked in total (see Appendix C), albeit with a bit of probing for clarification of answers where it was necessary. The data analysis process began by repeatedly listening and thoroughly reading the interview texts. This process was important as it not only allowed the researcher to gain in-depth familiarity with the data but to examine whether a level of saturation was reached. Thereafter, patterns emerging from the data were explored using a coding process to systematically break down and draw linkages and to draw comparisons, parallels and overlaps from the collected data (Golafshani, 2003). This process of analytical scrutiny subsequently facilitated the constructions of sub-themes and distinctive thematic categories. The open codes, sub-themes and thematic categories that were identified are listed in the table below.

As illustrated in Table 4.2., the findings obtained from the semi-structured interviews will be analysed in four different sub-sections, each focusing on the key thematic category that was created from the open codes and sub-themes that emerged from the data. These thematic categories are as follows: i) Transitional process, ii) Impact of the transitional process, iii) Governance, processes and controls and iv) IFRS 9 impairment modelling judgements; and will be discussed separately, and in detail in the section that follows.

Table 4.2. Codes, sub-themes and thematic categories

Open codes	Sub-themes	Thematic categories
• Transition • IAS 39 • IFRS 9 • Impairment • ECLs	• ECLs • Impairment provision • Supervisory requirements • Preparedness	<i>Transitional process</i>
• Forward looking information • Historical data • development of ECL models • Disclosures • Governance • Processes	• Implementation challenges and benefits	<i>Impact of the transitional process</i> <i>Governance, processes and controls</i>
• Judgement • Supervision	• Qualitative information • Definition of default • SICR approaches • Forward looking macroeconomic variables	<i>IFRS 9 impairment modelling judgements</i>

Source: Adapted by the researcher

Theme 1: Transitional process: This theme details the participant's understanding of the transition from IAS 39 to IFRS 9, and, in particular, their understanding with regards to IFRS 9 impairment provisioning of ECLs and preparedness in the implementation and use of the standard.

Theme 2: Impact of the transition: This theme details the impacts of IFRS 9, with regards to the benefits and the challenges that were faced in the transition and implementation of IFRS 9.

Theme 3: Governance, processes and controls: This theme specifically looks at the importance of establishing governance processes and controls to ensure compliance and consistency in the disclosure of data, as well as the calculation and measurement of ECLs.

Theme 4: Impairment measurements and judgements: This theme looks at key judgement areas of IFRS 9 that have been applied in the impairment of ECLs. These judgment areas will however be limited to the application of the definition of default, approach to determining SICR and assessment of macroeconomic scenarios.

4.3. Discussion of findings

4.3.1. Theme 1: Transitional process

To formulate the contextual foundation of the study, the researcher believed it was important to first establish the participants' understanding of both IAS 39 and IFRS 9. All of the participants exhibited a deep understanding of the two financial standards, especially in terms of what they both entail and their differences. Respondent C, for example, contextualised the two financial instrument standards and articulately highlighted their differences stating that;

“IFRS 9 introduces a fundamental change in which companies are required to reflect the impairment losses on financial assets much earlier before a credit event has occurred. Previously, under IAS 39, companies were required to recognise impairment losses after a credit event had occurred, at the point in time when the customer defaulted.”

Respondent A also described the standards in the same manner, stating;

“The incurred loss model had good reasons to be implemented at the time as IFRS 9 changed the context towards a forward looking accounting model which tries to provide more transparency on financial institutions in general.”

Respondent E further described IFRS 9 as a principle-based framework stating that;

“.....it is the better way to go. A principle-based approach is clearer and more in line with the underlying current business realities which are reflected in the accounting statements.” (Respondent E)

The point that Respondent E highlighted is quite interesting as it purports that a principle-based approach, which IFRS 9 provides, is much better than the rule-based approach that was previously provided by IAS 39. Indeed, the debate over whether principle-based accounting standards or rule-based accounting standards is better is not new and has persisted for decades (Orbán & Tamimi, 2020). Therefore, while not downplaying the importance and necessity of rules, one can concur with Respondent E's argument in which he criticised the rule-based approach provided by the IAS 39 standard asserting that “rules do not always answer everything and sometimes cannot be relied upon to achieve consistent results and comparability”. This means that the principle-based guidance provided by IFRS 9 is considered by the participants as a sensible theoretically sound and understandable conceptual foundation which can be looked to for guidance and management against credit risk and loan loss provisioning (Kadlecová, 2018).

Given this light, one can argue that because of this principle-based approach, comparability may suffer (Kaburek, 2016; Moody's Analytics, 2016). This notion is supported by Respondent B who asserts that the ECL model is quite complex and flexible and this resultantly leads to implications of difficulties of comparability between and within banks. Respondent F however notes that "the lack of comparability has not affected the implementation of the IFRS 9 ECL models in banks." Therefore, Respondent F highlights that because of the increased emphasis on transparency, demands have been placed on supervisors in their role of maintaining and enhancing the soundness and safety of the financial system through effective risk-based supervision. The role of the supervisor, in the implementation and use of the IFRS 9 ECL model was therefore greatly appreciated by all the participants in the study, highlighting that it was an extremely vital component for the successful implementation of the new standard. However, despite the tremendous role that supervisors have been playing in the implementation and adoption of the IFRS 9 EC model, the researcher found it necessary to dig deeper into the changing role of the supervisor over the past decade. To answer this, Respondent D and J, emphasised the key role the supervisors play respectively stating the following:

"I believe the regulatory pressure and the centralisation of supervision in the implementation and use of the model is one of the deciding forces behind achieving high quality and consistent ECL accounting frameworks amongst banks and financial institutions."

"The supervisory authorities undertake very important measures to mitigate the impact of IFRS 9 on the bank by implementing transitional arrangements to allow for a gradual absorption of the impact of the first-time application of IFRS 9."

From the verbatim provided above, one can deduce that judgment is an important part of the implementation process and use of IFRS 9. It can also be deduced that although the type and magnitude of judgment are often subjective, reasonableness and the right mindset are often the required benchmark (Frykström & Li, 2018; Teymurov & Sharafitdinov, 2017). This point is reinforced by remarks made by Respondent H who affirms that supervisory authorities are "rational and predictable institutions whose decisions and judgments should be carried out in an unbiased, decisive, consistent, and objective manner." From these sentiments, it is, therefore, safe to conclude that it is through the evaluation and validation of prudential supervisors that consistent and high-quality application of IFRS 9 is ensured.

It is, however, unfortunate to state that no satisfactory answer was provided to enlighten how the role of bank supervisors has changed over time, especially with the current spate of uncertainties being imposed by Covid 19. However, this concern was addressed in a BCBS speech by Carolyn Rogers in 2021 who stated that the solutions that supervisors need to

deploy in the decade ahead are far from being similar to the ones that were deployed in the last decade. She further states: *“this evolving landscape requires us to think differently about the job of bank supervision. More forward looking supervision and a greater willingness to use judgement and to act without perfect information will need to replace the dominant focus on rules and standards. Rules and standards are a necessary part of an effective regulatory regime but they will never keep pace with change and human ingenuity. We know this because time after time, when a crisis happens, we find that someone found a way around the rules and the risk management culture didn't detect or stop the behaviour before it was too late”* (Rogers, 2021). Because of this assertion, it is therefore suggested that to be successful, bank supervisors need to place more emphasis on designing supervisory strategies and tools that are adaptive and lead to more resilient bank cultures (Rogers, 2021).

However, although the role of supervisors cannot be underestimated, it can be argued that supervisors may not always be able to fulfil their obligations and expectations due to different reasons such as lack of skills as well as adequate data and resources (Kaburek, 2016). This assertion prompted the researcher to investigate the extent to which entities were prepared in transitioning to IFRS 9. To answer this, Respondent D stated that their first encounter with IFRS 9 was in 2014 and it is then that they immediately realised that the scope of work required in the implementation of the standard was massive. They further listed many activities that were carried out to prepare people for the new financial instrument:

“Numerous workshops, presentations, gap analyses and training were provided for some employees to help them understand the new standard better and be aware of its consequences.” (Respondent D)

Another participant also highlighted the following:

“SARB was quite involved in setting up the framework. Some experts were also involved such as Econometricians, Actuarial Scientists, Economists, Statisticians and Accountants to interpret the requirements of the new financial standard and to build models.” (Respondent I)

To conclude on the issue of preparedness, Respondent B states that the implementation of IFRS 9 was a steep learning curve for everyone. As such, IFRS 9 “kept many stakeholders awake overnight until a suitable ECL model was developed (Respondent B). Given this backdrop, one can deduce that there was adequate preparation in the implementation of IFRS 9, but this does not mean challenges were absent. These will be discussed in the following section.

4.3.2. Theme 2: Impact of the transition

As expected, the transition to IFRS 9 is believed to have significant benefits and these benefits undoubtedly transcend from those provided by IAS 39. This is proven by Respondent D who explains that “the ECL model not only helps financial institutions to arrive at a more accurate provisioning, it also requires them to monitor assets closely, as well as to keep an eye on the evolving risk profiles of customers which then helps to generate data on them at a more granular level.” The transition to IFRS 9 was also particularly hailed by respondent B who highlighted that the implementation of the financial standard led to a better level of risk management throughout the banking sector. He further explained that the move towards a more principle-based approach under IFRS 9 provided inherent flexibility which he described as “a positive step for the accuracy of accounting statements. He also explains that having this flexibility means that the financial reports “provide some transparency to investors and can accommodate the global standard.”

Respondent I and B express the same sentiments stating;

“..... The current impairment model allows us to achieve alignment between accounting functions and risk. Such an alignment would benefit the bank in many ways especially in terms of streamline reporting, integrating data sources, economies of scales as well as a standard way of measuring credit risk across the financial institutions” (Respondent I)

“The impact has been greatly positive. IFRS 9 provides us with sounder business projections and transparency, mitigation of over or under provisioning in banks’ portfolios and sounder analytics and segmentation of customers (Respondent B)

Notwithstanding the benefits that are associated with transitioning from previous provisioning approaches imposed by IAS 39, there are significant caveats that have been experienced by practitioners in terms of adapting to the new rules and achieving compliance. The challenges being faced are not surprising to Respondent B who states that “implementation of IFRS 9 is far more complex than that of IAS 39” and is also an “unchartered territory” and the development and requirements of the ECL models are a “greenfield exercise for everyone so one cannot outsource international expertise.”

However, the most common challenge that was identified by almost all the participants is the availability of data for modelling. Respondent I stated that “the data is not only vast, but its availability in the market is not great and it changes over time.” The level of granularity of historical data required for IFRS 9 impairment provisioning is also frowned upon by

Respondent C who explains the challenge they faced by comparing both IAS 39 and IFRS 9 stating that;

“Under IAS 39, provisioning on non-performing loans was only delayed by restructuring the loans, now with IFRS 9, the main challenge that we are facing is the poor quality and unavailability of historical credit loss data, as well as inadequate IT systems and the absence of good databases.”

Respondent G also expresses disdain in the implementation of the new standard stating that:

“The main challenge of IFRS 9 is that it is highly complex and statistically speaking, it can be very hard to link credit default rates with macroeconomic conditions. For example, systems had to be expanded and thoroughly changed to incorporate and capture new information.”

Another challenge is highlighted by Respondent E, who explicitly described IFRS 9 as a regulatory burden because “it requires extensive cooperation between technical specialists both inside and outside of financial institutions who all play a critical role in facilitating the high-quality implementation of ECL provisioning.” Respondent J expressed the same view highlighting the pervasive regulatory requirements that require banks to develop their models as the main challenge being faced by entities. These models, according to Respondent J “require statistically and mathematically driven definitions of PD, LGD and EAD for ECL calculations which also require robust systems and processes to manage the execution of the methodologies.” Upon further probing, it was revealed that most financial entities had to invest considerable human and financial resources to implement the new processes and models required by the new IFRS 9 accounting standard. Respondent B, for example, explained how the entity had to ensure adequate software solutions were developed and implemented to accurately model current and future trends in the market.

Another challenge that was highlighted was the significant time and cost that came in with the transition to and implementation of IFRS 9. For example, Respondent D expressed that although all banks were obligated to adapt their Basel capital models to achieve IFRS 9 to achieve compliance, entities were also supposed to build their IFRS 9 ECL models from scratch which then was a major challenge because of the significant resources, time and cost that was required to ensure the successful implementation of the IFRS 9 financial instrument. This challenge was further exacerbated by the vagueness of the financial standard which Respondent E, describes as one that “leaves a lot of room for interpretation”.

Although many challenges were faced in the adoption and implementation of IFRS 9's ECL model, one can argue that these challenges were in a way, a significant learning curve that

entities have been taking note of in terms of improving and developing an appropriate transition strategy (Dib & Feghali, 2021). For instance, due to the pre-implementation studies that outlined anticipated challenges that could be faced in the adoption and implementation of the new standard, SARB issued Directive 5, also known as a capital transition arrangement (CTA), which was introduced by the BCBS to attenuate the adverse consequences of the IFRS 9 ECL model. The CTA provided banks an adjustment period for mitigating the impact of the introduction of IFRS 9 on its funds and its main objective was to ensure a stable and smooth transition from IAS 39 to the new expected loss model by adding back a transitional adjustment to regulatory capital (Nexia-Sabt, 2017). SARB gave the banks in South Africa a protracted time of no more than three years to rebuild regulatory capital following the application of ECL accounting. However, following the Pillar 3 framework of Basel III, the CTA was only applicable if banks applied for a transition period by sending a notification to SARB before adopting IFRS 9. Unfortunately, there are no records showing that such transitional arrangements have been applied by South African financial institutions and banks (Nexia-Sabt, 2017). Despite this, one cannot ignore the fact that banks and other financial institutions in South Africa have made significant efforts in transitioning to IFRS 9.

4.3.3. Theme 3: Governance, processes and controls

To gain an understanding of how the requirements and compliance with IFRS 9 ECL provisioning are being achieved and satisfied, the significance of the development and application of these governance, processes and controls was investigated. Respondent G, for example, highlighted the importance of these processes stating that:

“I believe effective governance and control frameworks are important. Not only due to the underlying complexity linked to the IFRS 9 standard but for compliance purposes and mitigating related risks.”

Respondent E in concurrence with the view prescribed above also stated that:

“Some degree of standardisation is certainly required as this is necessary for ensuring a high-quality implementation of IFRS 9.”

Suggestions for an effective IFRS 9 governance, processes and control were also made by Respondent F who advised that these measures should be put in place before, during and after the IFRS 9 transition; and that they should be comprehensive, covering all IFRS 9 processes such as the selection of methodologies, processes and modelling, data input and assumptions, regular monitoring as well as output reviews. To supplement this point, Respondent A emphasizes the importance of achieving reliability by putting in place resilient

internal governance and processes based on procedures to control subjectivity around assumptions and other sources of estimating uncertainty. An example of such procedures is related to “the implementation of regular and appropriate independent validation (internal or external) of the impairment models, back-testing as well as an extensive and high-quality disclosure to allow stakeholders to understand the modelling assumptions behind the impairment allowances.”

Given the responses from the respondents, one can therefore argue that the governance, control and processes in IFRS 9 make provisioning a cross-functional activity that requires coordination and teamwork across accounting, finance, risk and business divisions. To reinforce the connection between achieving optimal compliance through governance, processes and controls, it was reported in a study by Rocha & Plochan (2015) that because IFRS 9 comes with greater bank scrutiny by both regulators and statutory auditors, having data values altered, either manually or automatically can no longer be acceptable without following a controlled process with a properly documented explanation. Because of this, they suggest that technology is the inherent solution for banks in such cases because it supports efficient documentation, audit trails, model management, strong governances, change controls, traceability and workflow (Rocha & Plochan, 2015). Banks, in other words, have to invest in new information technology tools not only for effective data management but for effective governance and control processes as well.

It is also recommended that selecting the right solution provider which has IFRS 9 expertise, the right banking industry experience and broad solution capabilities is pivotal to the success of the implementation of IFRS 9 (Rocha & Plochan, 2015). The technology also needs to be updated so that it accommodates the demands imposed by uncertain and emerging macroeconomic scenarios. To add to this, the Statistical Analysis System (SAS) Institute (2015) which has worked with the banking industry since 1976, provided solutions that deliver all the functionalities needed for optimal IFRS 9 compliance using leading technology. This includes technology that enables many factors such as data management, aggregation and integration, business management rules, data quality and data governance, model risk management, model development and deployment, connectivity to third-party engines, forecasting, capital planning and scenario management, risk and econometric calculation engines and finally, high performance analytics and reporting (The Statistical Analysis System (SAS) Institute, 2015).

4.3.4. IFRS 9 Impairment measurement and judgment

With regards to IFRS 9 Impairment measurement and judgment, it seemed apparent that financial entities are given latitude to make different judgments when modelling IFRS 9

impairment provisions. However, the participants reveal that there is consistency between entities in the application of certain impairment modelling judgements such as the applicable definitions of default, determination of SICR and the structure of forward looking macroeconomic variables:

I. Application of definition of default

The participants revealed that the definition of default being applied by financial entities in South Africa is consistent with the definition applied for regulatory capital calculations across all portfolios including the management of credit risk. The following definitions that were provided by the participants prove this point:

“The bank uses 90 days past due rebuttable presumption to serve as a backstop, except for where it can be justified otherwise.” (Respondent C)

“Default can be considered when there are any distressed restructures of accounts which have experienced a significant increase in credit risk since initial recognition” (Respondent F)

When asked to give an example of events indicating default within their bank, Respondent A explicitly mentioned bankruptcy or financial reorganisation, breach of contract, a borrower in significant financial difficulty, lender concession to the borrower and the purchase of a financial asset at a deep discount reflecting incurred credit losses. Respondent A further mentioned that all these events should be within 90 days past due rebuttable presumption

A closer analysis of these definitions highlight key aspects being considered by the entities such as the days past due criterion for default identification, treatment of the definition of default in external data, conditions for the return to non-defaulted status and indications of unlikelihood to pay (European Banking Authority, 2018). In other words, the definitions of default provided by the participants show a harmonised approach towards defaulting between entities which, to a larger extent, brings consistency in the way entities apply regulatory requirements to their capital positions. As a way to supplement this point, Table 4.3., reveals the alignment and harmonisation that are observed in the assessment and defining of default by four of South Africa’s largest banks.

Table 4.3: Assessment of default by banks in South Africa

Bank	Assessment of default
ABSA Group	Default is considered when there is the unlikelihood of the debtor to pay their credit obligations without recourse by the bank due to elements such as distressed restructuring/forbearance of credit obligation, debt review, business rescue, customer insolvency or death, as well as a breach of contractual conditions such as contractual payments more than 90 days past due or more on any credit obligation to the bank.
Nedbank	Quantitative criteria: default is considered when the client has exceeded their stipulated credit limit or is 90 days past due on any material credit obligation to the bank. Qualitative criteria: default is considered when the client is unlikely to meet their “credit obligations in full without the bank having recourse to actions such as realising security (if held); when the debtor is placed under business rescue or requests a restructure of its facilities due to financial distress; and when the bank has consented to a distressed restructuring of the credit obligation or has applied for the obligor’s bankruptcy or similar order in respect of the debtor’s credit obligation.”
FNB	Quantitative criteria: default is considered when “the client has exceeded its advised credit limit or is past due for more than 90 days on any material credit obligation to the group.” Qualitative criteria: “default is considered when the client is unlikely to meet their credit obligations in full without the bank having recourse to actions such as realising security (if held); when the debtor is placed under business rescue or requests a restructure of its facilities due to financial distress; and when the bank has consented to a distressed restructuring of the credit obligation or has applied for the obligor’s bankruptcy or similar order in respect of the debtor’s credit obligation.”
Standard Bank Group	Default is considered when there is “a breach of contract and when the debtor is unlikely to pay amounts due on the due date or shortly thereafter without recourse to actions when it becomes probable that the borrower will enter bankruptcy or other financial reorganisation; when the debtor is past due for more than 90 days or in the case of overdraft facilities and when the disappearance of the active market due to financial difficulties occurs.”

Source: Information extracted from (ABSA Group Limited, 2018; 2020; Nedbank Group Limited, 2018; 2020; First Rand Bank, 2018; 2021; Standard Bank Group, 2020; 2018)

II. Approach to determining SICR

To understand how a significant increase in credit risk (SICR) can be assessed, a range of indicators were identified, many of which are common within banks in the country. It is noteworthy to reiterate that, due to the statistical and calculative nature of quantitative assessments, the researcher only delved on the qualitative behavioural indicators with the most common, as highlighted by the participants, being:

- Changes in customer behaviour
- Term extensions
- Direct debt cancellations and;
- Requests for payment holidays or credit limit increases

To add to these findings, additional research was conducted to determine the criteria used indicating SICR by the four major banks in South Africa:

Table 4.4. Assessment of SICR by banks in South Africa

Bank	Assessment of SICR
ABSA Group	SICR is identified through quantitative and qualitative assessment including such as is an increase in PD or contractual payments are more than 30 days past due or one instalment past due in the case of instalment-based products, as well as backstop measures (not specified)
Nedbank	SICR is considered when there are contractual payments that are past due by more than 30 days.
FNB	SICR is considered when there is a combination of relative and absolute factors such as is an increase in PD or contractual payments are more than 30 days past due or one instalment past due in the case of instalment-based products, “the appearance of wholesale and commercial SME facilities on a credit watch list as well as any up-to-date facility that has undergone a distressed restructure.”
Standard Bank Group	The SICR threshold is determined by “utilising an appropriate transfer rate of exposures that are less than 30 days past due (DPD) to stage 2. The SICR thresholds are reviewed regularly to ensure that they are appropriately calibrated to identify SICR by portfolio vintage and to consequently facilitate appropriate impairment coverage.”

Source: Information extracted from (ABSA Group Limited, 2018; 2020; Nedbank Group Limited, 2018; 2020; First Rand Bank, 2018; 2021; Standard Bank Group, 2018; 2020)

As illustrated in Table 4.4., the SICR indicators used by the banks are a combination of quantitative and qualitative assessments. However, the SICR indicators provided by the participants fall within qualitative criteria and are mostly behavioural, meaning that their effect may not be fully reflected in quantitative assessments on a timely basis (Tominac & Vašiček, 2018). However, Respondent J, in addition to listing these qualitative behavioural indicators, raised an important point, stating that “these indicators can be used as industry metrics to benchmark the entity’s SICR approach in order to facilitate the recognition of SICR on a timely basis.” He further suggests that the current socioeconomic environment does not require traditional mechanisms for identifying SICR stating that the Covid-19 pandemic, especially, has forced banks to adjust and change approaches that allow for timely identification of SICR.

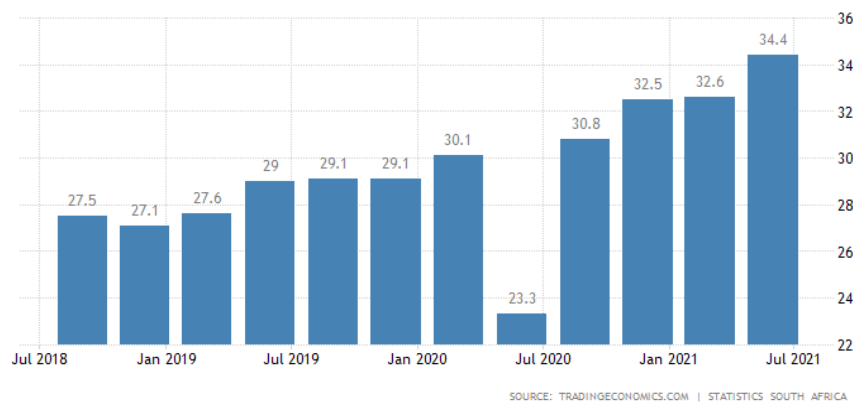
III. Forward looking macroeconomic variables.

According to the findings gathered from the interviews, it seems there are common macroeconomic variables that are observed by financial entities in South Africa. It is important to note that micro-economic forecasting has always been a challenge due to the various uncertainties faced in the country and this has affected how banks estimate the state of the economy and how this relates to ECL provisioning (Lauron, 2018). However common specific macroeconomic factors that have been identified by participants include unemployment rate, GDP growth rate, interest rate, inflation rate and foreign exchange rate. A brief empirical analysis of these microeconomic factors that reveals how they present challenges in the measurement of a probability-weighted ECL in South Africa’s current socio-economic environment is provided below. This analysis was also conducted to grasp a better understanding of the current macroeconomic conditions in the country and how they affect the current ECL provisioning under IFRS 9:

a) Unemployment rate

South Africa’s unemployment rate has always been a controversial topic within the country. Amid the covid-19 pandemic and other economic stressors such as unending unrest and looting, the unemployment rate, as of July 2021 (see Figure 4.1), is reportedly at its highest. Standing at 34.4% the unemployment rate sets the number of unemployed people at 7.8 million (Omarjee, 2021; Trading Economics, 2021). This is a drastic increase from the 27.5% unemployment rate that was recorded in July 2018, and also a massive increase from 584 thousand jobless people that were recorded in 2020 (Trading Economics, 2021).

Figure 4.1: The unemployment rate in South Africa (2018-2021)

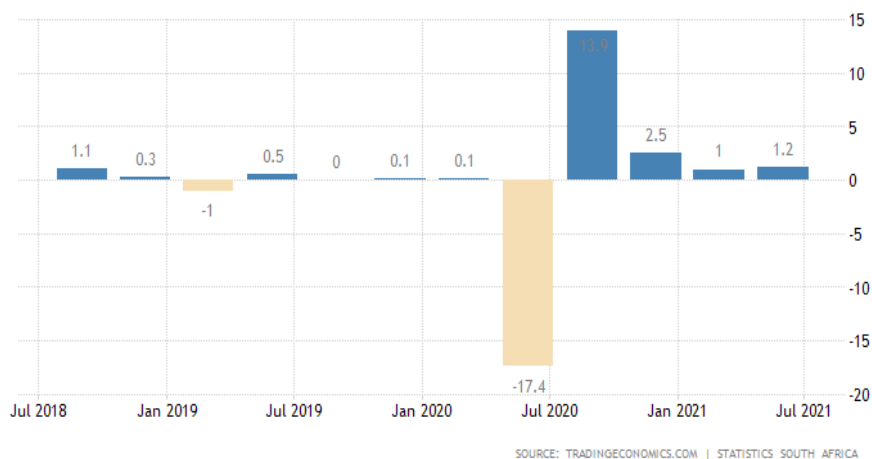


Source: (Trading Economics, 2021)

b) GDP growth rate

As shown in Figure 4.2, South Africa's GDP has mostly been fluctuating at a steady pace over the years, with the percentage ranging between -17.4% and 2.5% (Trading Economics 2021a). Compared to the year 2021 when the GDP reached approximately 320.00 USD billion, Enoch Godongwana, the Finance Minister stated that in 2022, the country's GDP is expected to grow by an average of 2.1 %, hence, increasing to 345.00 USD billion (Statistics South Africa, 2021; Business Tech, 2022).

Figure 4.2: South Africa's GDP growth rate (2018-2021)



Source: (Trading Economics, 2021a)

c) Interest rate

As shown in Figure 4.3, South Africa's interest rate has maintained a steady 7% since 2017 but during the September 2021 meeting, the South African Reserve Bank agreed to settle on 3.5% as its benchmark repo rate due to the ongoing uncertainty from the Covid-19 pandemic

and as a way of supporting the country's fragile economic recovery against the various factors such as inflation (Trading Economics, 2021b).

Figure 4.3. South Africa's interest rates (2017-2021)



Source: (Trading Economics, 2021b)

d) Inflation rate

As depicted in Figure 4.4, South Africa's inflation has been fluctuating over the five past years, levelling between 2.0% and 6.8%. O'Neill (2021), as a result, predicts that inflation will stabilise around 4.5% in the future.

Figure 4.4: Inflation rate in South Africa (2017-2021)



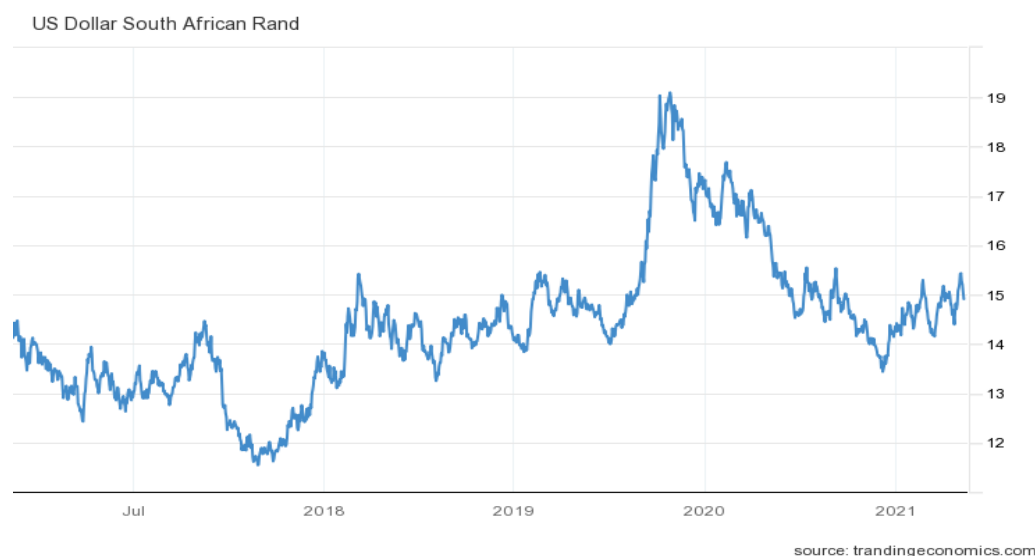
Source: (Trading Economics, 2021c)

e) Foreign exchange rate

The South African currency has seen some volatility in recent years owing to intense power cuts, domestic politics, Covid-19 pandemic and uncertainty around US monetary policy (Trading Economics, 2021d). The average South African Rand (ZAR) to US Dollar (USD)

exchange rate for the first two months of 2022 is 15.362 ZAR to the Dollar but it is unfortunately forecast to weaken from this level due to the frail economic activities in the country (Focus Economics, 2021; Exchange Rates UK, 2022). Focus Economics, (2021) further predicts that the Rand will, by the end of 2021 and in 2022, be sitting at 16.92 per USD and 16.77 per USD respectively. Figure 4.5 below shows the volatility of the South African rand over the past three years.

Figure 4.5: Foreign exchange rate in South Africa (2017 – 2021)



Source: (Trading Economics, 2021d)

Having provided an overview of the major macroeconomic scenarios that are currently affecting South Africa, further research, as detailed in Table 4.5, was conducted to show the different macroeconomic conditions that major banks in South Africa consider when measuring and calculating ECLs. As shown in Table 4.5, these macroeconomic scenarios are usually estimated internally with different probability weights and although some banks do not publish the types of macroeconomic indicators included in the models, they usually do not differ significantly from each other (Pastiranová & Witzanya, 2021). The differences that occur are mostly caused by different expert judgements, found either internally or externally, that are used by the banks to support their forecast scenarios (Pastiranová & Witzanya, 2021).

Table 4.5: Assessment of macroeconomic scenarios by banks in South Africa

Bank	Assessment of macroeconomic scenarios
ABSA Group	Macroeconomic forecast scenarios and variables are sourced from one of the world's largest research companies (not specified) and are reviewed and approved under the bank's macroeconomic governance framework. "Several factors are considered in the development of macroeconomic scenarios, including economic growth or contraction and expected recovery, expected inflation, sector-specific impacts, business confidence, property prices, household spending, exchange rate fluctuations and unemployment rates." Three forward looking macroeconomic scenarios with different weights are used; "a 40% probability weighting is applied to the baseline scenario; a 30% probability weighting is applied to both the upside and downside scenarios."
Nedbank	The macroeconomic scenarios are updated quarterly and are determined internally through a robust governance process by the board subcommittee, the Group's asset, liability and capital management committee (ALCCO) and Credit Committee that reviews and approves the forecast macroeconomic factors. Forecasting includes "global, national and regional political and economic conditions; levels of securities markets; interest rates; credit or other risks of lending and investment activities; as well as competitive, regulatory and legal factors."
FNB	Forward looking information is incorporated into the expected loss estimates through the application of expert judgement-based post-model adjustments and quantitative modelling "The process of incorporating the forward looking information into the expected loss estimates has not changed since 30 June 2020, but there have been changes to the probabilities assigned to the scenarios and the inputs used." "Three macroeconomic scenarios are utilised, namely a base scenario, an upside scenario and a downside scenario. An additional stress scenario was added to the macroeconomic scenarios applied to the South African retail and commercial portfolios as of 30 June 2021. The inclusion of this stress scenario is a temporary measure to capture this extreme uncertainty."

	Macroeconomic scenarios are determined by the FirstRand Macro Forum. This forum operates under the direction of the ALCCO, with ultimate oversight by the FirstRand risk, capital management and compliance committee (RCCC); and is independent of the credit and modelling functions and
Standard Bank Group	Three possible future macroeconomic scenarios are used in forecasting, namely, the base, bear and bull scenarios and attributed weightings are applied to these three scenarios. Inflation, prime rate, Real GDP, employment rate, household credit, exchange rate. Inflation, policy rate, unemployment rate. The Group Economics Research team determines the macroeconomic outlook. The forward looking economic expectations are also updated on a bi-annual basis or more regularly when deemed appropriate.

Source: Information extracted from (ABSA Group Limited, 2018; 2020; Nedbank Group Limited, 2018; 2020; First Rand Bank, 2018; 2021; Standard Bank Group, 2018; 2020)

It is also important to note that because of the volatile and uncertain macroeconomic conditions, Respondent A advises that financial institutions should “continuously update and define microeconomic scenarios in their consideration of forecasts of future economic conditions.” This argument is consistent with Guégan, Clifford, Rebreanu and Kengla’s (2018) argument that the volatility of macroeconomic scenarios causes the expectations around the forecast likelihood and provisioning levels to be continually changed and adjusted.

Having identified that key judgments and assumptions in IFRS 9 impairment provisions are mostly aligned within banks, one cannot ignore the divergences and inconsistencies that are present in the application of certain key areas of IFRS 9 impairment modelling judgments that were highlighted by some of the participants. As purported by Respondent G, these inconsistencies and differences in key judgments are undeniable and are to be expected because financial entities are obligated to use estimates and to back-test their current IFRS 9 models, as well as to take precautions and make relevant adjustments to the models being currently used. Adding on to this, Respondent E highlighted the use of different factors such as the setting of SICR thresholds which includes a combination of qualitative, quantitative and backdrop information as well as the different approaches and weightings of macroeconomic scenarios that differ across entities, as the some of the main causes of the macroeconomic variances between entities. Respondent B also highlighted the use of different impairment provision overlays which are largely based on using expert credit judgment to capture information about the market that macroeconomic variables applied in modelling might not

capture. After probing other participants on how impairment provision overlays are used in their workplaces, Respondent H states that the overlays are often “applied as adjustments to capture all characteristics of the market as at the measurement date.”

An important issue was also raised by Respondent E who explains that the inconsistencies in IFRS 9 impairment judgments are largely due to the different periods of stress and uncertainties. They further explain that a notable example includes the changes that were implemented due to the advent of the Covid-19 pandemic. The pandemic is, as a result, considered the first real test of IFRS 9 since its inception in 2018 (Barnoussi, et al., 2020). The pandemic also reportedly led to a significant increase in impairment provisions while at the same time the entities were forced to tighten their reign and belts in lending to protect their capital positions (Barnoussi, et al., 2020)

To conclude this section, and having understood that the approaches to IFRS 9 impairment judgments are both aligned and divergent across entities, the participants were asked if they believed that comparability in IFRS 9 ECL provisioning will ever be achieved. Respondent F had this to say:

“IFRS 9 is fairly new and comparability hasn’t necessarily been attained but I believe mastery of the standards and a higher level of comparability will be attained in a few years. Let me also add that the comparability issue is compounded by the fact that the IFRS 9 standard can be extremely technical and only specialists can discuss the differences. For external, non-specialists, such a situation may lead to a false perception of comparability between banks which are not truly comparable.”

In agreement with these sentiments, Respondent C asserts that comparison of banks, as a matter of consequence, is extremely difficult but also states that:

“It remains to be seen whether comparability is desirable in IFRS 9 because ECL calculation and scenarios are built based on the judgment of the different banks and may lead to significant divergences.”

4.4. Conclusion

This chapter provided a detailed analysis of the findings and key arguments that were gathered from the semi-structured interviews. These findings reveal the complexity of the implementation of IFRS 9 across different entities. Most of these findings are common amongst the participants and also align with the empirical literature presented in Chapter 2. As such, the findings in the study can be arguably stated that although there are subjective, they can be largely generalizable to other entities across the globe. The following section will conclude the research report by providing a summary of all the chapters as well as the findings.

CHAPTER 5

CONCLUSION AND FINAL REMARKS

5. Introduction

This study aimed to conduct a thematic evaluation that employs an investigation on the post-implementation and practical issues that are currently being faced when accounting for ECLs under IFRS 9. The findings of the study were collected from ten participants, who all had extensive experience and knowledge in the area of accounting and IFRS. The analysis of the data collected from the semi-structured interviews with the ten participants led to the identification of four main themes, which are: i) Transitional process; ii) Impact of the transitional process; iii) Governance, processes and controls and; iv) IFRS 9 impairment modelling judgements. All the participants that were invited to take part in the study managed to participate meaning that the study had a 100% response rate. As such, it is safe to argue that the findings of the study are not marginal and are most likely accurate and reliable.

The main aim of this chapter, however, is to conclude the research by providing the overall summary of the study. An overview of the conclusions about the research questions, research objectives, literature reviews, research methodology and major findings with thus be outlined in this chapter. Following this, the chapter will wind up the study by providing suggestions for further study as well as the researcher's final reflections.

5.1. Chapter summaries

Overall, the study consists of 5 chapters;

Chapter 1: The chapter provided the background of the study by briefly examining the history and development of IFRS and the BCBS. Following this backdrop, the problem statement, research aims and objectives, the limitations and delimitation of the study were outlined. Of particular concern is that the main focus of the study was solely on IFRS 9's impairment model and the application of the ECL model by banks. It is also noteworthy that the study did not provide a technical review or analysis of the implementation of IFRS 9 provisions but rather sought to conduct a qualitative thematic analysis to determine the operational and practical impact of the implementation thereof. The study was also limited to the views and knowledge of IFRS experts in detailing their experiences, knowledge and understanding of the implementation and practical issues of loan loss provisioning under IFRS 9.

Chapter 2: This section of the study focused on providing a literature review around the subject under study. The first three-part of this chapter outlines a theoretical synopsis of IFRS 9 impairment. The first part provided a review that briefly discussed the evolution and

development of IFRS 9, its impairment model and the different stages for impairment of financial assets. The second part looked at the regulation of IFRS 9, and the history and development of the BCBS and the Basel accords. The third part of the literature review detailed the interaction between BCBS and between BCBS and IFRS 9 ECL provisions. The last part of the chapter offered an analysis that revealed the scarcity of empirical studies on the subject matter, especially that which offers a South African context. The need and importance of country factors when examining the implementation of IFRS 9 underpinned the rationale of this study and is a gap that this study addressed.

Chapter 3: This chapter detailed the research methodology that was used to meet the research objectives. It therefore explicitly stipulated that a qualitative research methodology will be employed, using semi-structured interviews as the primary method of data collection. Secondary sources obtained primarily from annual reports were also used to supplement and validate the findings obtained from the interviews. The chapter also identified that the sample size for this study is a total of ten participants who were selected using subjective judgment or non-random sampling techniques. A thematic analysis approach was employed as a method of data analysis and it allowed the researcher to minimally organise and describe the data sets in rich detail and to identify, analyse and report themes or patterns within data.

Chapter 4: This chapter provided information on the results of the study as well as a critical analysis and discussion around the results. The information of the results and arguments were mostly provided as verbatim extracted from the participants' interview scripts. A summary of these findings is provided in section 5.3.

Chapter 5: This chapter concludes the study succinctly by providing a summary and review of key findings, suggestions for further research areas that can be pursued and final reflections.

5.2. Summary and review of key findings

A summary and review of the key findings in the study will be provided in reference to the research questions of the study. This is done mainly as an attempt to determine whether the research questions were adequately answered or not, and to also determine whether the objectives of the study were achieved. The research questions include:

- To what extent were entities prepared for the IFRS 9 transition from IAS 39?
- What implementation challenges were encountered before, during and after the IFRS 9 transition?

- From a modelling perspective, what are the key considerations required when performing qualitative validation of ECLs?

5.2.1. To what extent were entities prepared for the IFRS 9 transition from IAS 39?

The study elaborated on two main recent evolutions of financial instrument systems, namely IAS 39 and IFRS 9. Under IAS 39, the research highlighted that there is no recognition of expected losses stemming from future events. Financial institutions were required to deal with losses only after the occurrence of a negative event, already affecting credit quality. The recently introduced IFRS 9, which came into force in January 2018, marked a paradigm shift from incurred loss to expected loss but differed at the moment at which expected losses are recognized as it demanded to account for the expected losses in the next 12 months as long as the asset did not show a significant increase in risk, thereby triggering the recognition of the ECL for the remaining lifetime. The following table highlights the key differences between IAS 39 and IFRS 9 has identified both in the literature review and findings:

Table 5.1: IAS 39 Incurred Loss Model vs IFRS 9 Expected Credit loss Model

IAS 39 Incurred Loss Model	IFRS 9 Expected Credit loss Model
Rule-based	Principle-based
The recognition of credit losses is delayed until there is objective evidence that impairment has occurred.	The recognition of ECLs is at each reporting period, even if no actual loss events have occurred.
The amount of impairment is determined by considering past events and current conditions.	Impairment is determined only when supportable and reasonable forward looking information is available; and when both past events and current conditions are considered.
Multiple accounting models used for calculating credit	Uses a single, forward-looking ECL model that applies to all types of financial instruments within the scope of impairment accounting.

The importance of applying reasonable judgement guided by and within conceptual or standard-level boundaries was also discussed in the study. It was also argued that IFRS 9 places great responsibility on the judgment of prudential supervisors mostly because of their role in ensuring the accurate use and implementation of IFRS 9. Their role mostly involves a thorough assessment of banks to determine whether appropriate credit risk management practices are implemented, assessing whether the calculation and measurement of loan loss

provisioning are adequate, evaluating whether adequate policies are in place for the early identification of problem assets and ensuring whether there is consistency in the application of the new accounting standard across institutions (Lauron, 2018). From this analysis, the researcher concluded that it is only through the evaluation and validation of prudential supervisors that consistent and high-quality application of IFRS 9 is ensured.

With regards to the issue of preparedness in the transition to IFRS 9, the respondents outlined many activities such as workshops, presentations and training by various experts in the accounting, statistical, economic and actuarial fields to better prepare users of IFRS 9. From the responses provided by the participants on the issue of preparedness, the researcher deduced that the financial institutions in the country had adequate time for preparation for the implementation of IFRS 9.

What implementation challenges are being encountered before, during and after the IFRS 9 transition and how can this be resolved?

Although numerous benefits come with the implementation and transition from IAS 39 to IFRS 9, entities also faced huge challenges. This was unanimously revealed by all the participants as they were in complete agreement that the implementation of IFRS 9 was far more complex than that of IAS 39. These challenges are provided in summation below:

Data and modelling: The data required (both historical and risk data) under IFRS 9 is of large amounts compared to that required in IAS 39 and this makes the implementation and use of the standard very complicated. The data, such as macroeconomic information, also need to be continuously updated and reviewed when macroeconomic expectations change. PD, LGD, EAD for the ECL calculations also need to be established based on the large of data collected.

Systems infrastructure: IFRS 9 requires entities to develop adequate systems infrastructure for the calculations of ECL.

More governance and control: IFRS 9 implementation and use require a whole end-to-end process that needs to be performed in a robust environment with sufficient controls in place to satisfy the requirements of the new financial standard.

Cost: The implementation and use of IFRS 9 requires high operational costs as well as niche and specialized resources that go beyond transition such as forecasting, validation, and modelling

Vagueness: The high-level IFRS 9 requirements are open to interpretations and assumptions. this, as a result, has led to inconsistencies and a lack of comparability between financial entities.

Following the challenges been faced, the study also revealed the importance of governance and controls through which financial institutions have to strike the right balance between building a sustainable revenue proposition and ensuring regulatory compliance. An important aspect to note is that these processes are mostly implemented for compliance purposes and for mitigating related risks.

5.2.2. From a modelling perspective, what are the key considerations when performing qualitative validation of expected credit loss ECL?

The study revealed 3 key judgement areas of IFRS 9 that have been applied in the impairment of ECLs. Because financial institutions were given latitude to make different judgments when modelling IFRS impairment provisions, the researcher identified that there is alignment as well as divergences in the judgments areas that were identified. These judgment areas include the applicable definitions of default, the determining factors in SICR and the structure of forward looking macroeconomic variables. For instance, it was revealed that entities are applying definitions of default for IFRS 9 ECL provisioning that is consistent with the definition applied for regulatory capital calculations across all portfolios. Moreover, a range of indicators used to assess SICR was identified by the participants. These are mostly qualitative behavioural indicators and include changes in customer behaviour, term extensions, direct debt cancellations and requests for payment holidays or credit limit increases.

Another key judgement is forward looking forecasting, which consists of various macroeconomic factors that determine the ECL provisioning. The common specific macroeconomic factors that were identified by participants include unemployment rate, GDP growth rate, interest rate, inflation rate and foreign exchange rate. A closer look at current empirical literature on macroeconomics affecting the country reinforced the argument that microeconomic forecasts are often presented by volatile and uncertain macroeconomic conditions which, in turn, create a huge challenge in the implementation and satisfaction of IFRS 9 requirements.

There are also divergences and inconsistencies present in the application of certain key judgement areas in IFRS 9 impairment modelling that was highlighted by some of the participants. The highlighted factors include the setting of SICR thresholds which comprises a combination of qualitative, quantitative and backdrop information; the different approaches and weightings of macroeconomic scenarios across entities as well as the use of different impairment provision overlays. In addition to this, an important point to consider is how the divergences and inconsistencies in IFRS 9 impairment judgments are more largely due to the different periods of stress and uncertainties. An example is the current and ongoing Covid 19

pandemic which can be considered as the first real test of IFRS 9 since its inception in 2018. The pandemic, as a result, led to a significant increase in impairment provisions while at the same time the entities were forced to tighten their reign and belts in lending to protect their capital positions.

5.3. Potential areas for future research

The following may be considered as areas of future research:

The research conducted was a qualitative study that used semi-structured interviews as a method of data collection to investigate the post-implementation and practical issues that are currently being faced when accounting for ECLs under IFRS 9, future research could, however, focus more on the quantitative impact of IFRS 9 on financial institutions to supplement the qualitative findings in this study.

In addition to this, since it has been three years since IFRS 9 came into force, future research could be conducted with regards to its impact, from a bank business model perspective and bank profitability perspective, on the operation of banks. A comparative study of the financial performance before and after the implementation of the IFRS 9 reporting standard could also be conducted. The specific objectives of the study would be to determine the effect of fair value adjustment on the performance of financial institutions.

Future research could also look at how well the current systems worked to pick up defaults during and after the Covid 19 pandemic. This could help financial institutions and standard setters in investigating the efficiency of their systems, determine what is working and what needs to be changed going forward and know what to look out for in case of another uncertainty in future.

Finally, future research can also analyse the policies and procedures that financial institutions have put in place to validate the models being used to measure ECLs under the IFRS 9 standard. This research can be deemed as part of an internal control framework and compliance assessment around IFRS 9 to establish whether the credit risk assessment and measurement models are generating consistent, accurate and unbiased predictive estimates, on an ongoing basis.

5.4. Final reflections

This thesis does not claim that all the aspects concerning the implementation and use of IFRS 9 ECL provisioning have been taken into account. This is because the analysis and discussion presented are solely based on information gathered from participants that were selected for this study. No other information was obtained except for empirical evidence obtained from

financial reports, transition reports, commentaries, that was used to support the arguments presented by these participants.

Moreover, although there is substantive literature that attempts to understand IFRS 9 ECL provisioning, it is important to note that the study was conducted without preconceived notions about outcomes. The discussion of findings is therefore the researcher's analysis, based on the information solely obtained from the semi-structured interviews.

5.5. Conclusion

This chapter provided a conclusion for the study by summarising all the chapters as well as the findings of the study. The findings were discussed regarding the research questions and it can be concluded that the research made a significant contribution to the literature as it added new insight on the subject, particularly about the South African context. It is also important to note that the findings of the study are solely theoretical and therefore, although they can be subjective, they can, to a larger extent, be representative and generalisable to the situations other financial entities are facing across the globe. Most, importantly, this study makes a valuable theoretical contribution by providing primary evidence to the operationalisation issues of loan loss provisioning under IFRS 9, hence, the investigation could be beneficial for standard setters, regulators as well as banks and other financial entities within and outside of South Africa.

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List of Appendices

Appendix A: BCBS principles for banks and supervisors

Supervisory guidance for credit risk and accounting for expected credit losses
Principle 1: Board and management responsibilities – A bank's board of directors (or equivalent) and senior management are responsible for ensuring that the bank has appropriate credit risk practices, including an effective system of internal control, to consistently determine adequate allowances in accordance with the bank's stated policies and procedures, the applicable accounting framework and relevant supervisory guidance. Principle 2: Sound ECL methodologies- A bank should adopt, document and adhere to sound methodologies that address policies, procedures and controls for assessing and measuring credit risk on all lending exposures. The measurement of allowances should build upon those robust methodologies and result in the appropriate and timely recognition of expected credit losses in accordance with the applicable accounting framework. Principle 3: Credit risk rating process and grouping- A bank should have a credit risk rating process in place to appropriately group lending exposures on the basis of shared credit risk characteristics. Principle 4: Adequacy of the allowance- A bank's aggregate number of allowances, regardless of whether allowance components are determined on a collective or an individual basis, should be adequate and consistent with the objectives of the applicable accounting framework. Principle 5: ECL model validation- A bank should have policies and procedures in place to appropriately validate models used to assess and measure expected credit losses. Principle 6: Expected credit judgement- A bank's use of experienced credit judgment, especially in the robust consideration of reasonable and supportable forward-looking information, including macroeconomic factors, is essential to the assessment and measurement of expected credit losses. Principle 7: Common data- A bank should have a sound credit risk assessment and measurement process that provides it with a strong basis for common systems, tools and data to assess credit risk and to account for expected credit losses. Principle 8: Disclosure A bank's public disclosures should promote transparency and comparability by providing timely, relevant and decision-useful information.
Evaluation principles for supervisors
Principle 9: Credit risk management assessment- Banking supervisors should periodically evaluate the effectiveness of a bank's credit risk practices. Principle 10: ECL measurement assessment- Banking supervisors should be satisfied that the methods employed by a bank to determine accounting allowances lead to an appropriate measurement of expected credit losses in accordance with the applicable accounting framework. Principle 11: Capital adequacy assessment- Banking supervisors should consider a bank's credit risk practices when assessing a bank's capital adequacy

Source (Barth and Landsman, 2010).

Appendix B: Interview guide

The semi-structured interview questions will be consistent with the supervisory expectations for the implementation and application of loan loss provisioning under IFRS 9:

1. Transition process

To what extent were entities prepared before the implementation of the new standard?

2. Governance, processes and systems

Are the systems and processes designed to generate the information needed to produce the related disclosures required by IFRS 9 sufficient?

3. Specific disclosure requirements of the standard

Have these been applied in an appropriate and entity-specific manner?

4. Definition of default for IFRS 9 purposes

Is the Basel definition of default and the entity's risk management practice aligned?

5. Consistency of implementation of the new ECL requirements

Do entities have access to similar information about future events and do they consistently consider the information in respect of portfolios with similar credit risk characteristics?

Appendix C: Interview questions

Question 1: What do you think of the transition from IAS 39's incurred loss model to IFRS 9's expected credit loss model in terms of credit provisioning?

Question 2: What are the benefits and challenges you have faced in the implementation of IFRS 9?

Question 3: To what extent were entities prepared during the implementation of IFRS 9?

Question 4: What role have supervisors played in ECL provisioning?

Question 5: From a modelling perspective, what are the key considerations required when performing qualitative and quantitative validation of expected credit loss ECL?

Question 6: Is there any comparability between banks in IFRS 9 ECL provisioning?

Questions 7: How important is the governance of data, systems, processes and models in the implementation of IFRS 9?

Question 8: What approaches did you take to calculate and estimate expected credit loss?