


“An investigation into the best approach to the implementation of Basel II in Swaziland”

AUTHORS	Themba Busika Muhammad Hoque
ARTICLE INFO	Themba Busika and Muhammad Hoque (2017). An investigation into the best approach to the implementation of Basel II in Swaziland. <i>Banks and Bank Systems</i> , 12(4), 131-143. doi: 10.21511/bbs.12(4-1).2017.02
DOI	http://dx.doi.org/10.21511/bbs.12(4-1).2017.02
RELEASED ON	Monday, 18 December 2017
RECEIVED ON	Monday, 30 January 2017
ACCEPTED ON	Monday, 28 August 2017
LICENSE	 This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License
JOURNAL	"Banks and Bank Systems"
ISSN PRINT	1816-7403
ISSN ONLINE	1991-7074
PUBLISHER	LLC “Consulting Publishing Company “Business Perspectives”
FOUNDER	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

21



NUMBER OF FIGURES

3



NUMBER OF TABLES

4

© The author(s) 2025. This publication is an open access article.



BUSINESS PERSPECTIVES



LLC "CPC "Business Perspectives"
Hryhorii Skovoroda lane, 10, Sumy,
40022, Ukraine

www.businessperspectives.org

Received on: 30th of January, 2017

Accepted on: 28th of August, 2017

© Themba Busika, Muhammad
Hoque, 2017

Themba Busika, Graduate School of
Business and Leadership, University
of KwaZulu-Natal, South Africa.

Muhammad Hoque, Dr., Graduate
School of Business and Leadership,
University of KwaZulu-Natal, South
Africa.



This is an Open Access article,
distributed under the terms of the
[Creative Commons Attribution-Non-
Commercial 4.0 International license](https://creativecommons.org/licenses/by-nc/4.0/),
which permits re-use, distribution,
and reproduction, provided the
materials aren't used for commercial
purposes and the original work is
properly cited.

Themba Busika (South Africa), Muhammad Hoque (South Africa)

AN INVESTIGATION INTO THE BEST APPROACH TO THE IMPLEMENTATION OF BASEL II IN SWAZILAND

Abstract

After the exposition of the Basel I Capital Accord weaknesses, the advent of the Basel II Capital Framework profoundly redefined global banking regulation and risk management practices. Many African countries had been lethargic on the migration to Basel for various reasons, amongst many being lack of skills and infrastructure. The purpose of this study was to investigate the prospect of migrating from the 1988 Basel I Capital Accord to the Basel II Capital Framework and to analyze the best approach to the implementation of the new framework in Swaziland. This was a qualitative study conducted using semi-structured interview among risk managers from the four banks operated in Swaziland. The researchers also analyzed internal regulatory documents to determine their suitability and compliance to the Basel II standards. The results showed that the adoption and implementation of Basel II are a complex and resource intensive undertaking that requires strong commitment from policy decision makers. The complex models used in the later Basel capital accords have the potential to be unattainable for emerging economies, while the risk of doing business is ever increasing with exotic banking products being introduced. Background work remains the daunting outstanding undertaking that the Central Bank must get ready to do and complete timeously and efficiently. Implementation prerequisites include aligning supervision practices with the 29 Basel Core Principles for Effective Banking Supervision, revising the current legislation to address existing regulatory weaknesses and recruiting and training human resources for efficient and effective rollout.

Keywords

framework, infrastructure, emerging economy, effective banking, regulatory weakness

JEL Classification

G20, G21, M10, M12, L21

INTRODUCTION

After the 2008 global financial crisis, central banks across the world began extensive processes of reviewing their regulatory frameworks to promote soundness, stability and resilience of the banking sectors within their jurisdictions (Teply, 2010). One of the foundations of a robust financial system is the sound risk management system in force within the regulatory regime.

The Bank of International Settlements (BIS) is an international organization that was established in 1939 in Basel, Switzerland, to assist central banks in their quest for monetary and financial stability, to facilitate cooperation of international supervisors in these areas and to become bank for central banks. Within the BIS there is a committee called the Basel Committee for Banking Supervision (BCBS), which provides a platform for regular collaborations on banking supervision matters. The main objective is to strengthen common understanding on key regulatory and supervisory issues to improve the quality of international banking and the regulation and supervision thereof.

In 1987, the BCBS (or Basel Committee) presented a report that sought to achieve international convergence of regulatory standards and regulations governing capital requirements among international banks. The report became what is known as the Basel I Capital Accord and it presented an international standard for measuring the adequacy of capital and minimum standards to be achieved which national supervisory authorities like the Central Bank of Swaziland had to implement in their respective countries. The primary purpose of capital adequacy framework was to strengthen the soundness and stability of the countries' banking system and encourage fairness consistency in the application of capital adequacy among countries (Ermolova & Penikas, 2017). The Central Bank of Swaziland adopted the Basel I Capital Accord for the calculation of capital in the banking sector, and has maintained this position to date.

After most countries had adopted the Basel I Capital Accord, studies indicated weakness in the accord which undermined the very purpose for which it was developed which led to the revision of the accord, culminating to a new Capital Accord, referred to as Basel II in 2006 (Ermolova & Penikas, 2017). All central banks were expected but not legally bound to adopt this revised Capital Framework. Accordingly, most countries, especially developed ones, adopted the revised Capital Framework, while most developing countries like Swaziland had not adopted the standard by 2015.

The increasingly growing level of banking business sophistication and the growing inherent risks have increased the need for central banks to adopt more robust regulatory and supervisory approaches which the Basel II Capital Accord aimed to achieve. While central banks in developing countries have not been resisting the need to migrate to Basel II, various limitations in these countries have resulted in slow migration process to Basel II (Cihak et al., 2012). It suffices to mention at this stage that the 2008 global financial crisis culminated to a further review of the sufficiency of Basel II in mitigating the effects banking crises result to the presentation of Basel III by the Basel Committee.

Problem statement

The Central Bank has, over the years since the Basel II Capital Framework introduction, been considering the need to adopt the capital framework in the local banking industry. Consultants and technical assistance have been engaged on different occasions to conduct impact assessment on the Basel II introduction. Reports were forwarded with varying recommendations and subsequently no move towards Basel II has been made by the country. Critical to the decision is the cost-benefit analysis of the adoption and the implementation process, thereof.

The non-action on this key regulatory decision has caused some prospective banking institutions to hold back entry into the Swaziland banking industry due to perceived lack of a robust regulatory and supervisory infrastructure in the absence of Basel II standards. As a result, Swaziland has remained with four banking institutions for more than twenty years with no new investment into the banking industry during this period. The research sought to investigate the prospect of migrating from the 1988 Basel I Capital Accord to the Basel II Capital Framework and the best approach to the implementation of the new framework in Swaziland.

Research questions

The research will attempt to address the following questions:

- Is the Swaziland banking industry ready and relevant for the adoption of the Basel II Capital Framework given the market conditions, level of development of the banking system and the skills capacity?

- What are the implications of maintaining the Basel I Capital Framework in relation to the international trend towards adopting Basel II?
- What is the most applicable and appropriate approach to the implementation of Basel II that would be suitable in the Swaziland context?
- What are the resource requirements, both technical and human, in the Basel II implementation?

1. LITERATURE REVIEW

1.1. The BCBS and the Basel Capital Accords

According to the BIS, the Basel Committee on Banking Supervision was established after the financial crises that happened after the collapse of the Bretton Woods system in 1973 (BCBS, 2014). Because of the crisis, the G10 central banks governors established a forum on Banking Regulations and Supervisory Practices in 1974 (BCBS, 2014). In the beginning the main objective was to create a harmonization on banks' capital requirements, a mandate that was later expanded to also achieving an efficient bank regulatory and supervisory system that would be adopted by all countries participating in the world financial system (Goodhart, 2011).

The Committee achieved this by setting prudential standards for regulating and supervising banks, information and expertise sharing on supervisory issues, providing techniques and approaches that would encourage common understanding and advance cooperation on cross-border supervisory issues. The Committee's standards, recommendations and decisions have no legal force but are made for the respective member regulatory authorities to implement them (BCBS, 2014).

The BCBS must also work in harmony with regulatory standard setters such as the International Organization of Securities Commissions (IOSCO) and the International Association of Insurance Supervisors (IAIS) so that common cross-sectoral standards can be developed to reduce chances for regulatory arbitrage among industry players and achieve a more comprehensive stability of the global and jurisdictional financial system (Laas & Siegel, 2014).

Among many standards recommended over the years, the Committee drafted, in 1988 and 2004, standards for measuring capital adequacy universally known as Basel I and Basel II, respectively, which have introduced a new paradigm in international banking cooperation. The use of quantitative, qualitative and technical benchmarks has enabled the Basel Accords, to a large extent, to achieve harmonization in the supervision and regulation of banks and maintenance of adequate capital and risk management standards across the Basel Group member countries.

1.2. Basel II Capital Framework

The BIS official document, titled International Convergence of Capital Measurement and Capital Standards, states that BCBS began an extensive consultative process to revise the Basel I Capital Accord, which culminated in release in June 2006, of a new Basel Capital Accord, themed: International Convergence of Capital Measurement and Capital Standards. The Basel Committee encouraged national supervisors to consider adopting the capital framework in line with their supervisory priorities (BCBS, 2006). The capital framework provided options for banks and banking systems, where the national supervisor would evaluate the benefits of the new framework to the domestic banking system when developing timelines and implementation approach. The Framework also allowed national regulators some degree of discretion on how the implementation options may be applied and to make adaptations that would be suitable for their respective national market conditions without handicapping the objectives of the Accord (Ojo, 2009).

The Committee expected banks to adopt improved risk management practices through the risk-sensitive capital requirements (BCBS, 2006). Basel II requires banks to have their own systems of man-

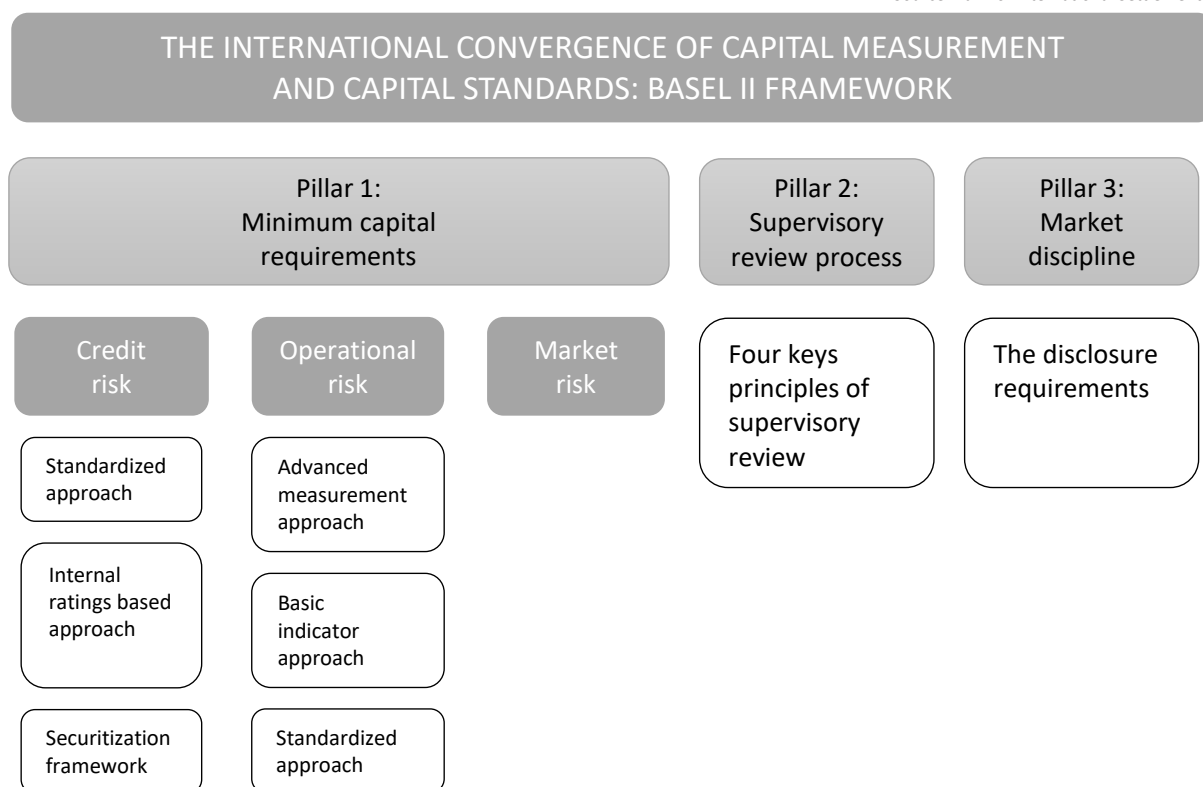


Figure 1. Basel II architecture

aging risk and capital allocation in line with the risk profile. These systems are subject to regulators' supervision. Balancing the statutory capital adequacy requirements and their profit maximization targets would be a challenge for most banking institutions (Goodhart, 2011).

The Basel II Capital Accord is structured in a concept of three pillars as shown in Figure 1.

1.3. Practical considerations on the implementation of Basel II

A 2002 study by IMF on the implementation of the BCPs reported that many banks did not fully comply with many of the BCPs. The BCPs provide standards on matters such as adequacy of supervisory resources, capital adequacy regimes, processes and procedures for loan evaluation and provisioning, internal control systems, home-host issues of consolidated supervision, and cross-border supervision. Compliance with BCPs is critical in the Basel II implementation. An efficient banking regulation requires a properly functioning of accounting, auditing, legal, information and market disciplines (IMF, 2002). Many experts on

the Basel II Framework agree on the most pressing regulatory implications of Basel II. Pasha et al. (2012) list the following:

- 1) the new calculation of capital and additional capital cushions;
- 2) the likelihood of increased levels of non-performing loans;
- 3) the cost of IT infrastructure and database creation;
- 4) the level of corporate rating penetration in most developing countries;
- 5) cross-border implication for foreign banks and internationally active local banks.

1.4. Implementation of Basel II

A gradual stepwise implementation appears to be very common with most developing and emerging economies and seems best suited to their immediate needs. Generally, most countries start with the fulfilment of the pre-requisites before they move to the standardized approaches (Cho, 2013). Few countries, especially the developing ones, go to the extent of implementing the advanced approaches, unless they have developed enough capacities in

their infrastructure. Most often, countries prefer to do a parallel run of the existing framework and new during the transition period. The complexities of Basel II implementation are related to the adoption of the advanced approaches. That is the reason most of the developing countries decide to keep the standardized approach for a long time (Marshall, 2005).

Most developing countries, particularly in the region, are either in the process of developing programs for Basel II implementation or in the implementation phase of the framework (Ahmed et al., 2015). South Africa and Mauritius remain the only two countries that maintain sufficient literature on Basel II implementation and in the forefront of the Basel capital framework from whom other jurisdictions can take lessons. There are some elements, similarities and consistency in the implementation approaches applied by countries on a similar level of economic development and complexity of the financial system.

2. RESEARCH METHODOLOGY

This study was qualitative and exploratory in nature. Tustin et al. (2010) state that exploratory research is appropriate when searching for understanding on the general nature of a given problem and the possible decision alternatives and variables relevant to the problem that need to be considered in the decision making process. The implementation of Basel II, while it was introduced about ten years ago in most developed countries, remains a subject of intense consideration for most developing countries. Many questions and options remain largely unanswered in this group of countries. Sekaran and Bougie (2013) further state that exploratory studies are necessary when there is some basic knowledge of the phenomena, but additional information is needed to develop a viable theoretical framework.

The study was conducted in two phases. The first phase was quantitative as it used secondary data. The second phase of the study used primary data collection through interview which was qualitative. The population for phase one was documentary research on the current regulatory frame-

work. The regulatory framework is structured in the form of legislations, legal notices, bylaws, circulars, regulatory guidelines and operational reports. This included legislations, regulation and compliance to international standards on banking supervision.

The unit of analysis on phase two are the opinions of the industry practitioners responsible for regulatory reporting and the Central Bank of Swaziland. The population consist of all banking industry officials responsible for regulation compliance and risk. A total of four Heads of Risk and Compliance from all four banking institutions and the Head of Banking Supervision at the Central Bank of Swaziland were considered as the most appropriate bank officials to provide the required views in Basel II matters.

A self-administered questionnaire (PAQ) was used as the research instrument for the interview phase of the research to direct the structured interviews. The advantage of applying this data collection method was the ease of collecting all the completed responses in a short period of time and the opportunity to clarify on the spot any doubts that the respondents had on the questions and the research as a whole (Sekaran & Bougie, 2014). The PAQ allows respondents to complete the questionnaire themselves in writing in the privacy of their offices (Tustin et al., 2010). The questionnaire was designed in three sections to provide answers to the four research sub-questions.

The first section of the questionnaire focused on the institutional awareness of Basel II Capital Accord. The purpose of this discussion was to establish whether each institution was aware of the need to migrate to Basel II Capital Framework. The discussion sought to establish whether each interviewee was for the migration or against the migration to Basel II in Swaziland. The second section of the questionnaire focused on perceived implementation approaches. This discussion sought to establish individual interviewee's view on the implementation road map, preferred methodologies for each Pillar of the Basel II Capital Framework. The third section of the interview focused on the readiness of the individual banks and the Central Bank. Readiness was assessed in terms of staff training on the Basel II Framework, information

management systems and internal policies relating to capital, liquidity, credit risk, market risk management and corporate governance.

The researchers personally visited the offices of the respondents to distribute and introduce the research topic. The researchers took the advantage to explain the questions to provide clarity on the subject of each question. The reason for personally administering the questionnaires was considered suitable as the respondents are located in close proximity to one another and the researcher’s base. The data collected consisted of the opinions of the bank executives responsible for reporting, finance and compliance. The data collection process paid attention to three key elements. They were: the researchers were careful to use identical methods of introducing and closing remarks of the study to provide equivalence in motivation and response attitudes; data collection was completed within acceptable time frame to avoid time elapses between the different interview sessions, and equal status of the respondents from the banks was ensured to allow consistent and comparability of the data.

The analysis approach of the documentary research phase required the use of content analysis to identify, extract and collate themes that were then compared to requirements as provided in the

Basel II accord. According to Sekaran and Bougie (2014), content analysis allows the researchers to analyze large amount of textual information and systematically identify its properties, concepts, themes or sentences. In the hindsight, the researchers were aware that most of the documents were developed in line with the Basel I Capital Accord. For phase two, transcripts of each questionnaire were studied and the answers to the questions captured into a framework that provided the basis for a valid and reliable conclusion. The responses were captured in a way that provided the ability to understand the differences in the responses from the different banks.

The researchers observed all reasonable ethical obligations, which include the following:

- 1) There was no harm, threat or duress applied to the participants.
- 2) The participants were not deceived by either misrepresentation of researcher’s identity, purpose of study or scope and length of the questionnaires.
- 3) Data integrity and confidence were maintained in line with acceptable research standards. Ethical clearance certificate was obtained from the University Ethics Committee with protocol reference number: HSS/0226/015M.

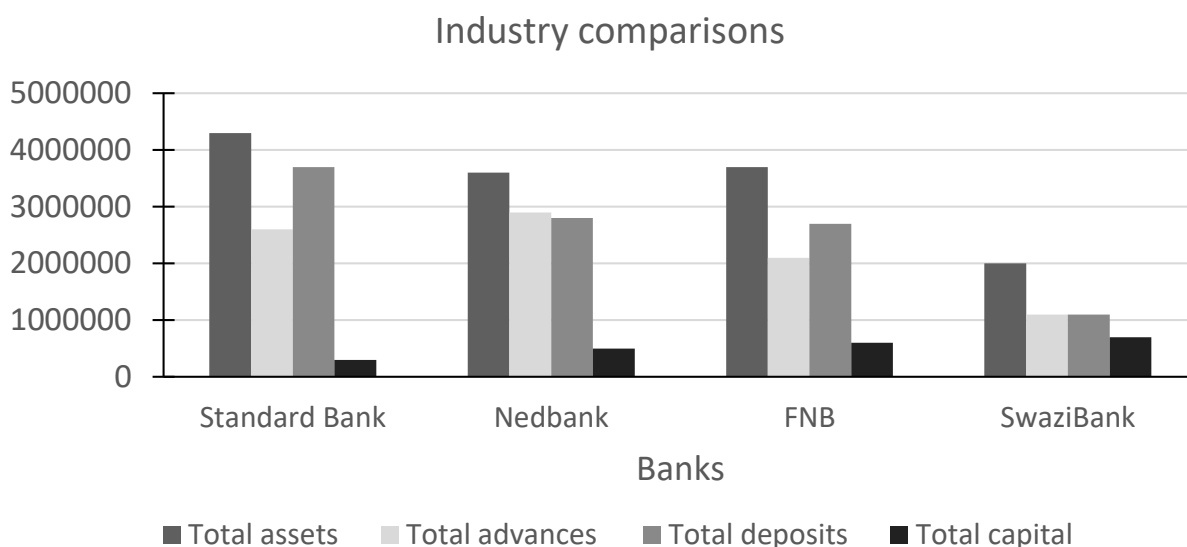


Figure 2. Swaziland banking industry by total assets, total advances, total deposits and total capital

3. RESULTS

3.1. Swaziland banking industry overview

Swaziland banking industry comprises of four (4) commercial banks, namely: Standard Bank Swaziland, First National Bank (FNB) of Swaziland, Nedbank Swaziland Limited and Swaziland Development and Savings Bank (also known as SwaziBank).

Figure 2 shows comparisons of the bank sizes measured by total assets, total advances, total deposits and total capital. It can be noted that by size, Standard Bank, FNB and Nedbank, which are subsidiaries of South African banks, are generally larger than the SwaziBank. The Central Bank is currently measuring capital adequacy in terms of the Basel I Capital Framework which sets minimum Tier 1 Capital and Total Capital at 4% and 8% of risk-weighted assets, respectively. Under this framework, all the banks are well above the statutory requirements with an industry average of 21.9% and 25.5% for Tier 1 and Total Capital, respectively. These levels have not captured potential risks arising from operational risk and market risk as required under Basel II Capital Framework.

Figure 3 presents the growth trend of the banking industry in Swaziland as determined in terms

of total assets, total loans, total deposits and total capital. The capital levels, as shown in the diagram, indicate that the banks are adequately capitalized under the Basel I regime, above the required 4 percent and 8 percent for Tier 1 and total capital, respectively. The assessment of key industry variables provides an indication of the direction the banking industry has taken over the last seven years. An increasing trend in growth rate of assets, advances and deposits indicates growth level inherent risks and the need for increased robustness in the regulation of the industry.

3.2. Assessment of regulatory tools

The results of phase one assessment of the research are presented in Table 1 below. Each regulation was assessed based on the following criteria:

1. Purpose of the regulation – What the regulatory document was intended to achieve in banking supervision.
2. Relevancy of the document to Basel II – This was assessment of each regulation document and its role in enforcing Basel II standards.
3. Compliance with Basel II standards – The compliance levels of the regulations were evaluated using the Basel Core Principles Self-Assessment Guidelines.

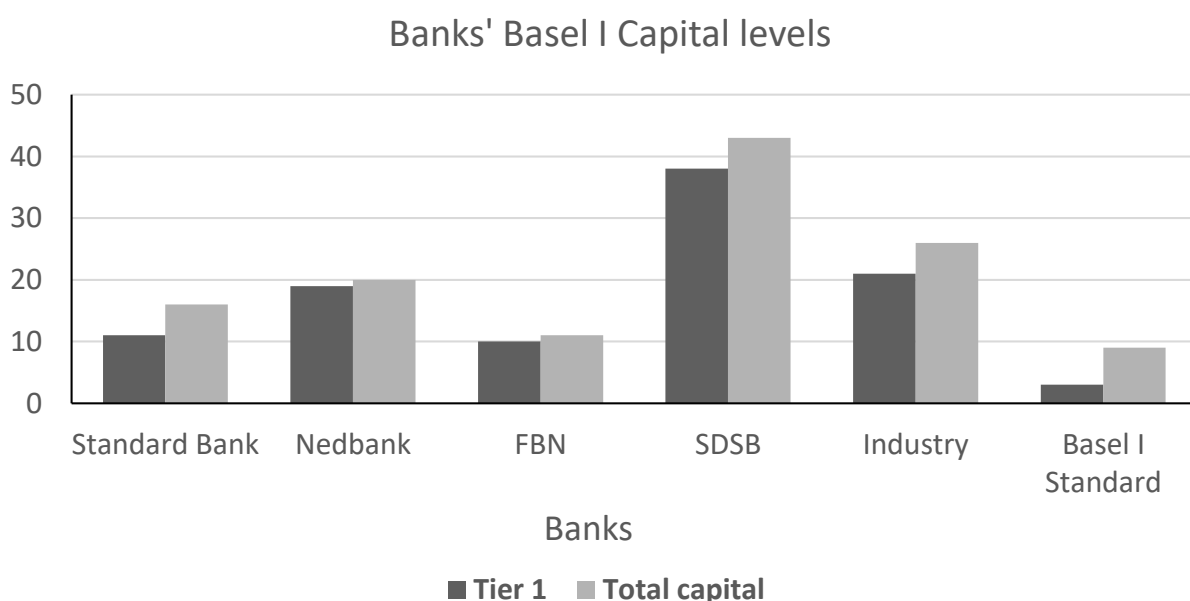


Figure 3. Industry capital adequacy levels

Table 1. Assessment of the current regulatory framework

No.	Regulation	Purpose	Relevancy to Basel II	Compliance
1	The financial institutions act, 2005	Enabling legislation	Relevant with minor amendments	Materially compliant
2	The computation of risk assets, bylaw	To compute total risk-weighted assets	Relevant with revision	Not compliant
3	The lending limit, aggregation and attribution regulations, bylaw	Setting lending limits	Not relevant	Not applicable
4	The limitations on transactions with insiders, bylaw	Setting insider lending limits	Not relevant	Not applicable
5	The prescription of minimum liquid assets, bylaw	Prescription of qualifying liquid assets	Relevant	Materially not compliant
6	Foreign Exchange Exposure Limitation Regulation	Determination of foreign exchange exposure	Relevant	Materially not compliant
7	Non-accrual, classification, and reserve requirements	Calculating asset impairments	Relevant	Materially compliant
8	Publication of audited financial statements, circular	Publication of annual financial statements	Relevant	Materially not compliant
9	Appointment of new directors and executive officers	Assessment of executives and board	Not relevant	Not applicable

3.3. Institutional awareness

An important precondition for Basel II implementation is institutional awareness of the concept and rationale of the framework by both the regulators and the regulated entities. The Central Bank, Bank Supervision Division affirmed creating awareness on the need to move to Basel II Capital Framework as early as 2006 when setting up an industry committee that deliberated on the possibilities of migrating to the new accord.

All the banks indicated awareness of the Basel II Capital Framework and displayed a broad understanding of all its aspects. Table 2 below summarizes the bank perceptions on Basel II and steps they have taken to re-align their internal operations and processes to the requirements of the capital framework. Internal impact assessment and investment in the IT infrastructure and human resources are considered critical indicators of readiness for implementation.

The South African banks subsidiaries are receiving considerable assistance from their respective Group counterpart and are largely reporting on the standards of the new framework. The locally owned bank has also indicated progressed on some aspects of the preliminary requirements of the migration by among other activities, conducting staff training, senior and board induction workshops and ICT infrastructure development. Table 2 presents some responses to some key questions on the preparatory activities.

3.4. Implementation approach

The Basel II capital presents various options for individual country discretions on the certain aspects of the framework, particularly on Pillar 1. Table 3 presents a summary of the banks preferred options on the model for calculating capital in consideration of the inherent credit risk and operational risk. Generally, the banks opt for the standardized approach for both credit risk and operational risk.

When asked on the implementation approach, most banks preferred the phased-in approach where the different aspects of the framework are rolled-out and implemented in succession as against an All-in-one implementation approach. The phased-in approach is preferred as it would allow gradual adjustment to drastic changes introduced by the framework without risking non-compliance on the new standards.

Pillar 2 reinforces the quantitative aspects of Pillar 1 by strengthening the qualitative aspects of regulation through the supervisory review process. The banks were assessed in terms of their policies' alignment to Basel II regulatory standards. The Basel Committee has over the years issued principles and guidelines for effective banking supervision which regulators must enforce and to which regulated entities must comply. Table 4 presents the extent to which banks have re-aligned their process through an effective development of guiding policies and the compliance thereof. The

Table 2. Institutional awareness

Institution	Familiarity with Basel II	Bank's primary perception of Basel II	Perception
Bank 1	Yes	Opportunity to enhance risk management and corporate governance practices	Positive
Bank 2	Yes	Opportunity to enhance risk management and corporate governance practice	Positive
Bank 3	Yes	Opportunity to enhance risk management and corporate governance practice	Positive
Bank 4	Yes	Opportunity to enhance risk management and corporate governance practices	Positive
Milestones achieved on preliminary implementation processes			
Institution	Yes/No	Steps taken, if any	
Bank 1	Yes	Consultant engaged to conduct feasibility study Scenario simulations conducted to assess impact	
Bank 2	Yes	Developed key risk policies Conducted trainings and awareness on Basel II Collaborated with group for assistance	
Bank 3	Yes	Conducting regular staff training Began reporting on Basel II standards	
Bank 4	Yes	Group support for simulations and training	
Key challenges and success factors for Basel II implementation			
Common implementation challenges	The use of complex risk models Availability and development of historical data Increased regulatory capital requirements Increased use of advanced technology Lack of necessary skills		
Key success factors	Board and senior management buy-in and support Stakeholder involvement in planning and execution Intensive training and capacity building ICT and database infrastructure development Legal and regulatory re-alignment		

table also shows the level of Basel II guidelines development by the Central Bank of Swaziland. Evidently, the Central Bank has not developed these guidelines and extent of work cannot be over-emphasized.

The review of the regulatory document further revealed that there are a number of key Basel II standards that are not existent in the current regulatory framework. These include among others:

1. Framework for internal controls.
2. Sound practices for banks' interactions with highly leveraged institutions.
3. Framework for enhancing corporate governance.
4. Supervisory guidance for managing settlement risk in foreign exchange transactions.
5. Internal audit in banks and the supervisor's relationship with auditors.
6. Customer due diligence for Banks October.
7. The relationship between banking supervisors and banks' external auditors.
8. Supervisory guidance for dealing with weak banks.
9. Management and supervision of cross-border electronic banking activities.
10. Risk management principles for electronic banking.
11. Risk management guidelines for derivatives.

Table 3. Pillar 1: credit risk and operational risk

	Credit risk – preferred approach			Operational risk – preferred approach		
	Simplified standardized approach	Standardized approach	Internal ratings approach	Basic indicator approach	Standardized approach	Advanced measurement approach
	1	3	0	1	2	1
Number of banks	The most preferred Basel II implementation II Plan					
	Phased-in approach			Complete once-off approach		
	3			1		

The absence of these regulatory documents represents an increase in the amount of work outstanding to be completed as part of the implementation process.

Table 4. Basel II compliant policies

Basel II policy	Number of banks that have adopted the policy	Central Bank of Swaziland (Yes/No)
Derivatives risk management	0	No
Credit risk management	4	No
Corporate governance	1	No
Liquidity risk management policy	4	No
Foreign exchange management	3	No
Internal audit policy	4	No
Operational risk management	4	No
Electronic banking services	3	No
Interest rate risk management	4	No
Stress testing framework	3	No
ICAAP guideline	0	No

4. DISCUSSION

There are four banks licensed by the Central Bank of Swaziland in terms of the Financial Institutions Acts, 2005. Three of the four banks are subsidiaries of major South African banks who adopted Basel II in 2006.

4.1. Condition of the Swaziland banking industry

The banking industry is showing significant growth as measured by the growth of assets, deposits and lending. The growth in assets means that the industry increases its exposure to inherent banking risk, which includes credit risk, operational risk and market. Inevitably, as banks grow, they engage in more exotic banking services and products that attract new risks for which capital must be charged to cushion the

added risk. However, the growth rate of the industry assets is not supported by a corresponding growth rate in capital as seen in Figure 1 of chapter four. This means banks are becoming more leveraged which is a volatile position in stressful economic conditions. Caruana and Narain (2008) observed that credit growth has been strong in most African countries in recent years which has required measures to moderate the credit cycle and to restrain excessive credit growth by regulators employing measures that impose a more direct restraint on the banks appetite to expand their loan portfolios.

The Basel II framework seeks to achieve a more risk-sensitive capital requirement that is conceptually comprehensive and at the same time recognizes internal assessment of risks provided by banks' internal systems as factors in the calculation of capital. The Central Bank would provide a detailed guideline on the minimum requirements designed to ensure the integrity of these internal risk assessments without dictating the form or operational detail of banks' risk management policies and practices. Results showed sound levels of capital holding for both Tier 1 capital and total capital, which are well above the statutory requirement of 4 percent and 8 percent, respectively. Jacobs (2013) argues that these capital buffers are a pre-emptive measure that allows banks to build up capital gradually as imbalances in the credit market develop and expand during periods of excess credit growth.

4.2. Benefits of migrating from Basel I to Basel II

The Basel Committee encouraged national supervisors to implement the capital framework in such a time as they believed was in line with national and internal strategic and supervisory priorities. The capital framework provided options for banks and banking systems, where the national supervisor would carefully consider the benefits of the Basel II in the context of the state of the domestic industry when developing timelines and approach to implementation.

Respondents from the banking institutions all confirmed the benefits of implementing Basel II in Swaziland. The banks were of the view that

Basel II framework's pursuit for stronger risk management practices and corporate governance enables them to strike a good balance between the conflicting objectives of their stakeholders. Banks recognize that Basel II does not prevent bank failure nor does it result in a perfect banking environment, but it does present a useful tool to promote transparency and robustness of supervisory processes (Hossain et al., 2012).

The perception of the banking industry towards Basel II confirms that banks are already underway conducting internal simulations to assess possible impact of the framework on their capital and other risk management practices. The impact self-assessment indicated that all the banks would be compliant with the Basel II standards and any statutory capital buffer requirements would only serve to strengthen their capital base. This observation is in line with the World Bank report that most emerging and developing countries experienced a growth in their capital levels after the Basel II adoption (World Bank, 2012).

Unlike the Basel I framework which was a one size fits all approach to capital calculation, the Basel II framework provides a choice of options to determine the capital requirements both for credit risk and operational risk from banks, and the Central Bank may select the approaches that are most suitable given the size and complexity of the operations and banking industry infrastructure. It also allows for a limited degree of regulator's discretion on the application of these options. The present study established that the banks favor the Standardized Approach both for credit risk and operational risk, however, the other options remain available for an institution choosing to pursue them.

4.3. The most feasible implementation approach

The preferred options for calculating capital by the banks was using a phase-in approach. The phase-in approach has been adopted by many countries implementing the Basel Accords as it is considered to minimize the impact of costs (Neethling, 2014). A study of the implementation process from other regional countries observed that the countries started with the fulfilment of the pre-requisites before moving to the standardized approaches. Most often, countries prefer a parallel run of the existing and the new framework during the transition period.

4.4. Resource requirements for implementation

One of the biggest challenges of implementing Basel II in developing countries, as observed by the IMF, is the scarcity and cost of resources required and that the complexity of the framework (IMF and World Bank, 2005). Adequately capacitated staff is key to a robust supervisory infrastructure and effective implementation of Basel II. In most cases, the skills of the existing staff are upgraded to enable them to execute the demands of the new standards. Central Bank will also have to identify and address non-personnel resource needs, such as aligning legislations and upgrading of regulatory reporting and IT systems at the supervisory authority or central bank. These efforts may involve providing sufficient budget and putting in place skills development plans that will detail creative methods for attracting, upgrading and retaining qualified staff. The Central Bank may have to involve consultants with special expertise in implementing Basel.

CONCLUSION

The study provided a roadmap for the adoption and implementation of Basel II in Swaziland. The dominant question of whether or not to adopt Basel II was answered on the strength of the evident growth rate of the banking industry and the increasing sophistication of the banking products on offer against the underlying desire of shareholders to earn their return on capital that has the effect of keeping capital levels low. Drawing comparison on experiences from other peer regulators, the next question was on the best possible path to migration. The study provides a roadmap and proposals for a systematic implementation of the framework.

RECOMMENDATION

Swaziland is a developing country and a member of the SADC region. On a number various regional forums, it has been given that member states are often lagging behind in implementing some international standards. The study on the implementation of Basel II in Swaziland provides an illustration that a scientific approach to institutional re-engineering and change management could solve the lethargic tendencies in international re-alignment by developing countries.

The study recommends the five key milestones on the critical path of the implementation for the overall roadmap to guide the implementation process in the context of Swaziland. The five key milestones on the critical path of the implementation are:

1. Internal assessment of implementation pre-requisites. This step involves:
 - assessing Central Bank of Swaziland's compliance to the 29 Basel Core Principles for effective banking supervision;
 - strengthening the risk-based supervision methodology;
 - conducting human resources planning.
2. Setting up the governance structure of the implementation project. The recommended governance involves the following committees:
 - Basel II Steering Committee: this is a high level strategy setting committee on Basel II issues chaired by the Governor of the Central Bank;
 - Basel II Technical Committee: a committee comprises of Bank Supervision Division and representatives from banking institutions and Swaziland accounting body chaired by the General Manager of Bank Supervision Division;
 - Basel II implementation core team which comprises of BSD officers responsible for the day-to-day running of the implementation project.
1. The development of key industry regulations and circulation of drafts to industry. Comments on the documents would form part of the agenda for the Basel II Technical Committee. The implementation process requires flexibility as regulators may need undertake consultations and receive comments from the industry on regulatory and legislative aspects of the standard.
2. The implementation of the three pillars in line with agreed options from the Basel II Technical Committee.
3. The review and the amendment of the enabling legislation, namely, the Financial Institutions Act, 2005 to adequately cover the new provision of the Basel II Framework

REFERENCES

-
1. Ahmed, S. U., Ahmed, S. U., Islam, M. N., & Ullah, G. M. W. (2015). Impact of Basel II Implementation on the Financial Performance of Private Commercial Banks of Bangladesh. *European Journal of Economics, Finance and Administrative Sciences*, 77, 73-83. Retrieved from http://www.academia.edu/14926466/Impact_of_Basel_II_Implementation_on_the_Financial_Performance_of_Private_Commercial_Banks_of_Bangladesh
 2. BCBS (2006). International Convergence of Capital Measurement and Capital Standards: a revised framework. Retrieved from <http://www.bis.org/publ/bcbs118.pdf>
 3. BCBS (2014). A brief history of the Basel Committee. Retrieved from http://www.spaeth.ru/HS20152016/artikel_14.pdf

4. BOM (2012). Bank of Mauritius Annual Report. Port Louis: Bank of Mauritius. Retrieved from https://www.bom.mu/sites/default/files/Research_and_Publications/Annual_Report/AnnualReport2013/annual_report_full_report.pdf
5. Caruana, J., & Narain, A. (2008). Banking on More Capital Finance and Development. Washington: IMF. Retrieved from <http://www.imf.org/external/pubs/ft/fandd/2008/06/caruana.htm>
6. Cho, Y. B. (2013). Why do countries implement Basel II? Doctor of Philosophy Research, the London School of Economics and Political Science. Retrieved from <https://core.ac.uk/download/pdf/16390632.pdf>
7. Cihak, M., Demiguc-Kent, A., Peria, M. S. M., & Mohseni-Cheraghlo, A. (2012). Bank regulation and supervision around the World: A crisis update. Research Working Paper series. Washington: World Bank. Retrieved from <http://documents.worldbank.org/curated/en/279091468168248726/Bank-regulation-and-supervision-around-the-world-a-crisis-update>
8. Ermolova, M. D., & Penikas, H. I. (2017). Basel regulation: A dangerous obsession. *Model Assisted Statistics and Applications*, 12(1), 63-88. <https://doi.org/10.3233/MAS-170384>
9. Goodhart, C. (2011). The Basel Committee on Banking Supervision. A History of the Early Years 1974–1997. Cambridge University Press, Cambridge, UK. ISBN 9781107007239.
10. Hossain, E., Ferdous, J., & Farzana, N. (2012). Some Imperative Issues and Challenges in Implementing Basel II for Developing Economies with Special Reference to Bangladesh. *International Journal of Latest Trends in Finance & Economic Sciences*, 4(2), 298-304. Retrieved from <http://ojs.excelingtech.co.uk/index.php/IJLTFES/article/download/Hossain/372>
11. IMF & WorldBank (2005). Implementation of Basel II – Implications for the World Bank and the IMF. Retrieved from <http://www.imf.org/external/np/pp/eng/2005/072205.htm>
12. IMF (2002). Implementation of the Basel Core Principles for Effective Supervision, Experiences, Influences, and Perspectives. Retrieved from <http://www.imf.org/external/np/mae/bcore/2002/092302.htm>
13. Jacobs, J. (2013). Lessons learnt from the deficiencies of the Basel Accords as they apply to Solvency II. Philosophiae Doctor in Risk Management, North-West University. Retrieved from https://dspace.nwu.ac.za/bitstream/handle/10394/11726/Jacobs_JRG.pdf?sequence=1
14. Laas, D., & Siegel, D. C. (2014). Basel Accords versus Solvency II – Regulatory Adequacy and Consistency under the Post-Crisis Capital Standards. Seminar on Regulation and Risk systems. St. Gallen: Institute of Insurance Economics, University of St. Gallen, Switzerland. Retrieved from https://acpr.banque-france.fr/fileadmin/user_upload/acp/Chaire-CP/Presentation_Caroline_Siegel.pdf
15. Marshall, E. (2005). Implementation of Basel II in Developing Countries: The Case of Chile. International Conference On “Financial System Stability and Implications of Basel II. Istanbul: Central Bank of the Republic of Turkey. Retrieved from http://www3.tcmb.gov.tr/conference/CB_All.pdf
16. Neethling, S. B. (2014). Empirical evidence of aggregate credit supply by South African banks since the introduction of international risk based capital regulation. Master of Financial Management, University of Capetown. Retrieved from https://open.uct.ac.za/bitstream/item/8744/thesis_com_2014_com_neethling_sb.pdf?sequence=1
17. Ojo, M. (2009). Basel II and the Capital Requirements Directive: Responding to the 2008/09 Financial Crisis. Retrieved from <https://mpira.uni-muenchen.de/17379/>
18. Pasha, M. A., Srivenkataramana, T., & Swamy, K. (2012). Basel II norms with special emphasis on capital adequacy ratio of Indian Banks. *A Journal of MP Birla Institute of Management*, 6(1), 23-40. Retrieved from http://www.mpbim.com/sites/default/files/Basel%20II%20norms%20with%20special%20emphasis%20on%20capital_0.pdf
19. Sekaran, U., & Bougie, R. (2013). Research methods for business: a skill-building approach (6th ed.). Chichester, Wiley. ISBN: 978-1-119-94225-2.
20. Teply, P. (2010). The Key Challenges of the New Bank Regulations. *World Academy of Science, Engineering and Technology* 42, 1477-1480. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.294.4403&rep=rep1&type=pdf>
21. Tustin, D. H., Ligthelm, A., Martins, J. H., & Van Wyk, H. de J. (2010). Marketing Research in Practice. Pretoria: Unisa Press.