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**EXECUTIVE MASTER OF BANKING AND FINANCE  
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**ANALYSIS ON KBZ BANK'S COMPLIANCE TOWARD  
THE PRINCIPLES FOR SOUND MANAGEMENT OF  
OPERATIONAL RISK**

**Supervised by**

Daw Yee Yee Thane

Associate Professor

Department of Commerce

Yangon University of Economics

**Submitted by**

Naing Linn

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EMBF 6<sup>th</sup> Batch

Date:

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## **ABSTRACT**

The main purpose of this study is to analyze the compliance of KBZ Bank toward “Principles for the Sound Management of Operational Risk” published by Basel Committee on Banking Supervision published in June 2011. In this study, the analysis was done with 50 emerging and noteworthy practices of 10 Principles of the Sound Management of Operational Risk, which referred from the review published by Basel Committee on Banking Supervision (BCBS). The primary data collection was carried out through questionnaire from the BCBS 292. The twenty participants were selected from senior management team (Executive levels, Department Head and Deputy Heads) and the data collection was done during November and December of 2019. In brief, the study was mainly focused to conduct questionnaire survey in KBZ Bank for the compliance of 10 principles which mentioned in the guidance of Basel Committee on Banking Supervision.

This study found that there are areas where KBZ Bank can improve in various aspects of operational risk management practices across the board and operation units to have sound operational risk management. Particularly, in formation of reliable operational risk management framework (ORMF) and strong processes to manage operational risk in both business and operation units. The Operational Risk Management training which includes operational risk identification and assessment tools, and processes and policies, should provide to all staffs level including officers, managers and executive levels. Moreover, to administer all risks, operational risk committee is required to establish with enthusiast team members who are knowledgeable in operational risk management or have experience in forming team in operational risk management.

The committee should be able to issue policies and implement them to the organization, as well as to monitor the operation risk management process. The job of the committee is for not only issuing the policies but also to review and update regularly according the needs.

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## **List of Abbreviations**

|             |   |
|-------------|---|
| <b>ALCO</b> | <b>Asset Liability Committee</b>                  |
| <b>AML</b>  | <b>Anti-Money Laundering</b>                      |
| <b>BAC</b>  | <b>Board Audit Committee</b>                      |
| <b>BBC</b>  | <b>British Broadcasting Corporation</b>           |
| <b>BCC</b>  | <b>Board Credit Committee</b>                     |
| <b>BCBS</b> | <b>Basel Committee on Banking Supervision</b>     |
| <b>BIS</b>  | <b>Bank of International Settlements</b>          |
| <b>BRC</b>  | <b>Board Risk Committee</b>                       |
| <b>CAR</b>  | <b>Capital Adequacy Ratio</b>                     |
| <b>CBM</b>  | <b>Central Bank of Myanmar</b>                    |
| <b>CFT</b>  | <b>Combating the Financing of Terrorism</b>       |
| <b>CORF</b> | <b>Corporate Operational Risk Function</b>        |
| <b>EMBF</b> | <b>Executive Master Of Banking and Finance</b>    |
| <b>HSBC</b> | <b>Hong Kong and Shanghai Banking Corporation</b> |
| <b>IT</b>   | <b>Information Technology</b>                     |
| <b>KBZ</b>  | <b>Kanbawza</b>                                   |
| <b>MCC</b>  | <b>Management Credit Committee</b>                |
| <b>MPU</b>  | <b>Myanmar Payment Union</b>                      |
| <b>ORC</b>  | <b>Operational Risk Committee</b>                 |
| <b>ORMF</b> | <b>Operational Risk Management Framework</b>      |
| <b>SOP</b>  | <b>Standard Operating Procedure</b>               |
| <b>WGOR</b> | <b>Working Group on Operational Risk</b>          |

# Chapter 1

## Introduction

A bank is influenced by the developments of the external environment in which it is called to operate, as well as by its internal organization, procedures and processes. A bank faces mainly three types of risk: credit risk, market risk and operational risk.

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events (Finel-Honigman and B. Sotelino, 2015). The definition includes legal risk but excludes strategic and reputational risk. Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

Operational risk can be created by a wide range of different external events from natural disaster such as power failures to floods or earthquakes to terrorist attacks. Similarly, operational risk can arise due to internal events such as the potential for failures or inadequacies in any of the bank's processes and systems (e.g. its IT, risk management or human resources management processes and systems), or those of its outsourced service providers. Operational risk arising from human resources management may refer to a range of issues such as mismanaged or poorly trained employees; the potential of employees for negligence, willful misconduct, conflict of interests, fraud, rogue trading and so on. (Operational Risk Management Policy, 2015) Therefore, the emergence of mistrust, failure to communicate, low morale and cynicism among staff members, as well as increased turnover of staff, should be regarded as indicative for potential increase in operational risk.

Basel Committee on Banking Supervision put efforts on working and implementing the Principles for the Sound Management of Operational risk into the Basel II which was primarily focused on Minimum capital requirements, Supervisory review and Greater public disclosure. The committee also states that if there is such event occurred due to the operational error, the financial firm will not only suffer from loss of physical assets but also will decrease its capacity to communicate with customers. From there we can observe the importance of following these principles to minimize the operational risk, banks will suffer severe losses whereby the cause of operational error.

In the context of Myanmar, most of the financial institutions are expanding rapidly to gain more market share by many ways such as implementing better core system, developing mobile based financials products to include the unbanked population to the society. At the same time, the Central Bank of Myanmar, CBM has been monitoring and supervising all the private banks in order to stable the country economy. Among the private banks, KBZ Bank has been leading with largest market share of 40% in both retail and commercial banking in Myanmar. With the purpose of full financial inclusion of the country, KBZ is venturing into the digital future with the accelerated development of mobile payment application and internet banking in the banking industry. For such a big financial institution with employees of over 20,000 and 500 branches nationwide, it is very important to have smooth operation and minimum operational risk by having good standard operating procedures (SOPs) and follows the principles.

### **1.1 Rationale of the Study**

It is an unavoidable truth that there are number private banks in a country in order to promote the Nation's Economy and provide reliable financial services to the public. And these private banks are under the supervision and guidance of the Central Bank. Usually, the financial regulation system of a country is governed by the Central Bank or the Monetary Authority, which is an independent body ruled by the governor or the chairperson. There should be fundamental purposes of regulation. Traditionally, the economic theory points out three main purposes, such as to restriction on the use of monopoly power and the prevention of serious distortions to competition and the maintenance of market integrity. Secondly, to guard the important needs of ordinary people in circumstances where information is difficult and expensive to get and errors could distress prosperity. Lastly, where there are adequate externalities that the social and overall, costs of market failure surpass both the private costs of failure and the extra costs of regulation (Brunnermeier et al., 2009). In principle, the regulations are the wall which protect against the crisis situations, control the liquidity, capital ratios and solvency issues.

The financial regulation system and supervision of the private banks in Myanmar are controlled by the Central Bank of Myanmar, CBM. After 1988, the economic system of Myanmar has been transformed from the planned economic

system to market oriented system. To develop the financial system which is in line with the market oriented by the Government, and to promote the efficiency of financial activities, the Central Bank of Myanmar Law was enacted in 2<sup>nd</sup> July 1990. According with the new government, was formed on 30<sup>th</sup> March 2011, Central Bank of Myanmar have to become independently to lay down the policies. Central Bank of Myanmar needs to enact monetary policy independently to control the price stability in domestic market and to preserve the internal and external value of the Myanmar currency the kyat (Central Bank Myanmar, 2015).

Fundamentally, the CBM is the independent body which issues directives and regulations from time to time to control the stability of the National economy, especially in foreign exchange rate and interest rate. The latest regulation announced by the CBM is in July 2017, the Liquidity Ratio Requirement regulation, to maintain a minimum of 20% by all the banks in Myanmar. And the Capital Adequacy Regulation (CAR), the ratio to be 8% and the minimum for Tier I is 4% CAR.

More importantly, the CBM released a guidance note on January 2015; AML/CFT Risk Based Management Guidance Note which includes “The Risk Management Framework”. It is referred from the Basel Committee’s Principle for the Sound Management of Operational Risk. It is mentioned that banks shall form the Risk Management Framework which comprises Corporate Governance, Risk Management Function, Policies and Procedures, Internal controls, The Compliance Function, Risk Monitoring and Reporting and Training.

KBZ Bank has expanded rapidly throughout the decades and reaches up to 500 branches. Recently, the management structure of the bank has changed and formed more of the expatriate oriented organization structure with many foreign experts from all over the World. By analyzing the KBZ Bank, we can observe how much benefit bank receives and the awareness and compliance of the seniors’ management of foreign expatriates according to the CBM’s guidance.

By seeing the announcement of these regulations and guidance, the CBM is closely monitoring the financial and cash flow of private banks all over the Myanmar. The outcome of following the guidance and regulations by the private banks will shape the stability and growth of Myanmar Economy.

## **1.2 Objectives of the Study**

There are two main objectives in this study:

- (1) To identify Risk Management Practices in KBZ bank Limited
  
- (2) To perform analysis on KBZ Bank's compliance toward the Principles for Sound Management of Operational Risk

## **1.3 Scope and Method of the Study**

The scope of this study is to analyse the Operational Risk Management System practiced by KBZ Bank and the questionnaires were asked from mid-level management (Department Heads) to senior management (Executive level) of the bank. In the review of Basel Committee on 11 Principles released on October 2014, there are 149 of emerging and noteworthy practices which were asked to the 60 systemically important banks in 20 countries. The questionnaires in this paper referred from the 149 practices but 50 of them will be used due to the adoption and compliance of Basel Standard in Myanmar, which is in between Basel I and II.

The descriptive method was used for the analysis of the Operational Risk Management System of the bank and the questionnaires are with 5 points Likert Scale.

## **1.4 Structure of the Paper**

This paper includes five chapters, in the Chapter (1) – Introduction, Rationale of the study, Objectives of the Study, Scope and Method of the Study and Structure of the Paper. Chapter (2), Basel Committee on Banking Supervision, Operational Risk in Banking, Operational Risk Management Framework and Principles for the sound Management of Operational Risk and Literature review are included. Chapter (3), the introduction of Profile of KBZ Bank and its management will be discussed. Chapter (4), the Analysis on Operational Risk Management System of KBZ Bank will be included. In the last, the Chapter (5), the Conclusion includes findings from analysis, suggestions and recommendation.

## **Chapter 2**

### **Theoretical Background**

This chapter includes theoretical background related to Operational Risk Management Framework. The operation risk is one of the key factors which financial institutions need to take into account as it is equally important as credit risk and market risk. The background on Basel Committee on Banking Supervision will also be discussed in this chapter. And also the Principles for Sound Management of Operational Risk by Basel Committee will be included.

#### **2.1 Basel Committee on Banking Supervision**

The Basel Committee is named “The Committee on Banking Regulations and Supervisory Practices” originally and it was founded by Governors of the Central Bank from Ten different countries in year 1974. It is mainly due to the collapse of the Herstatt Bank in Germany caused serious disruptions in International Currency and Banking Markets.

The Headquarter of the Committee is in Basel whereby the Bank for International Settlements (BIS) is located. The formation of the Committee is to improve the financial stability by creating quality banking supervision standards globally and another purpose is to provide a medium within the member countries for reliable assistance on banking supervisory problems. The first meeting was held on February 1975 and regular meetings have been carried out since three to four times a year.

The Basel Committee’s membership has become 45 institutions of 28 jurisdictions from its initial members of G10. The Basel “Concordat” was earliest issue of the Committee in 1975 and improved with numerous revisions ever since. The international standards for bank regulation on capital adequacy were published in series such as Basel I, Basel II and the recent, Basel III.

At the beginning, main goal of the Committee's effort was to narrow down the fissure in international supervisory exposure, ensuring that (I) There is no leakage in banking formation under supervision; and (II) sufficient and stable supervision applies to all member jurisdictions. As mentioned earlier, the paper called “Concordat” was introduced in 1975 which is the very first step of the Committee in

order to confirm the steps above. The purpose of Concordat is to set the principles in sharing supervisory responsibility for banks' overseas branches, joint ventures (JV) and subsidiaries among host and parent supervisory authorities.

With several revisions of Concordat in 1983, 1990, 1992, 1996, 1997 and 2012 (most recent), improvements were made in “Principles for the supervision of banks’ foreign establishments”, “cross-border flow of prudential information between banking supervisors” and added more principles to the document which has become 29 principles in September 2012. It mainly cover supervisory power, supervisory expectations of banks, the requirement to intervene early and prompt supervisory actions and fulfilment of supervisory criterions.(Bis.org, 2014)

The Basel I was introduced in 1988 by the Basel Committee which is also known as the “Basel Capital Accord”. The revision was done in 1996 with the inclusion of market risk in the accord. The due caused of the Basel I is the debt crisis in Latin America in early 1980s. The requirement is to maintain a minimum of 8 percent capital to risk-weighted assets ratio (Kuzucu and Kuzucu, 2017). Some of the large banks in the United States moved to Basel III directly from Basel I while Basel II is not fully adopted (Crouhy, Galai and Mark, 2014).

The Basel I has been criticized that the banks were forced to use regulatory capital arbitrage techniques especially in securitization, even though its successful enforcement in maintaining higher capital ratios for the financial institutions (Jablecki, 2019). The regulatory capital arbitrage technique allows banks lowering the capital requirements but the level of risk remains unaffected. That is why the efficiency of the Basel Capital Accords is lowered by the capital arbitrage method (Balthazar, 2006).

As mentioned above, the amendment was made to Basel I in 1996 to address clearly for the gap between the risk of loss related with asset-liability in the record of bank’s balance sheet, such as foreign exchange and interest rate. Another reason is to create a buffer for banks to lower risks from instability of price in trading. Finally, the amendment was approved by BCBS in 1996 and permitted banks utilize internal models to identify market risk. Nevertheless, the requirements imposed that “(i) the minimum capital charge for the market risk should be the higher of the bank’s previous day’s value-at-risk and three times the average of its daily value-at-risk for

the preceding 60 days;(ii) the bank's VaR should be computed daily using 99th percentile one-tailed confidence interval; (iii) a minimum price shock equivalent to a holding period of ten trading days should be used; and (iv) model should incorporate a minimum historical observation period of one year." (Finel-Honigman and B. Sotelino, 2015, p.141).

According to Finel-Honigman and B.Sotelino (2015), in the mid of 1999, the replacement proposition of 1988 Accord with new capital adequacy framework came out from the Committee, and in 2004 June the revised capital framework is released. It is recognized as "Basel II", the revised version included three pillars;

Pillar 1, minimum capital requirements which determine guidance for minimum capital buffer that financial institutions get protection from credit, market and operational losses.

Pillar 2 mentions the Supervisory Review, also the complement of Pillar 1, announcing principles to examine the practises of banks in risk management and internal governance which comprise board of director's participation and responsibility. It also address on management for the placement of "an internal capital adequacy assessment process" to measure the capital requirement both present and upcoming. The BCBS strongly believed that the supervisory review process should be a continuous conversation between bank and supervisor, which will let to restore the sufficient capital buffer with quick action. By doing that, the risk of bank runs and failure can be prevented.

Pillar 3, Market Discipline, determines guidance on external disclosure of a bank overall risk position and assessment practices to public such as the depositors, counterparties and investors. This will allow improving market discipline and encouraging sound banking practices (Bis.org, 2014).

The subprime mortgage crisis occurred during 2007 to 2009 led to the development of Basel III in 2009 by issuing an additional pack of documents to support Basel II framework. The committee officially announced the guidelines in June 2011, named as Basel III – "A global regulatory framework for more resilient banks and banking systems. The Basel III is a strict enhancement of Basel II's pillars

1,2 and 3 with additional two fresh financial standards namely minimum liquidity and maximum leverage. (Finel-Honigman and B. Sotelino, 2015)

## **2.2 Operational Risk in Banking**

As previously mention in the introduction, there are few definitions for operational risk especially in International Banking. Nonetheless, it is worth mentioning, “ Operational risk is the risk of loss as a result of failed internal processes due to human error or systems disruption, or external events” (Finel-Honigman and B. Sotelino, 2015, p.141). For instance, human could make mistakes unintentionally which caused error in technical processing and controls but fraud intentionally. It is also occurred by the breakdown in system for banking transactions which lead to serious issues toward the customer relations and losses. Moreover, if a bank is going forward internationalization, the larger the size of bank and its activities, the heavier the weight of risk it carries as a whole on the financial system.

The Basel II provides three basic methods to determine the Operational risk capital:

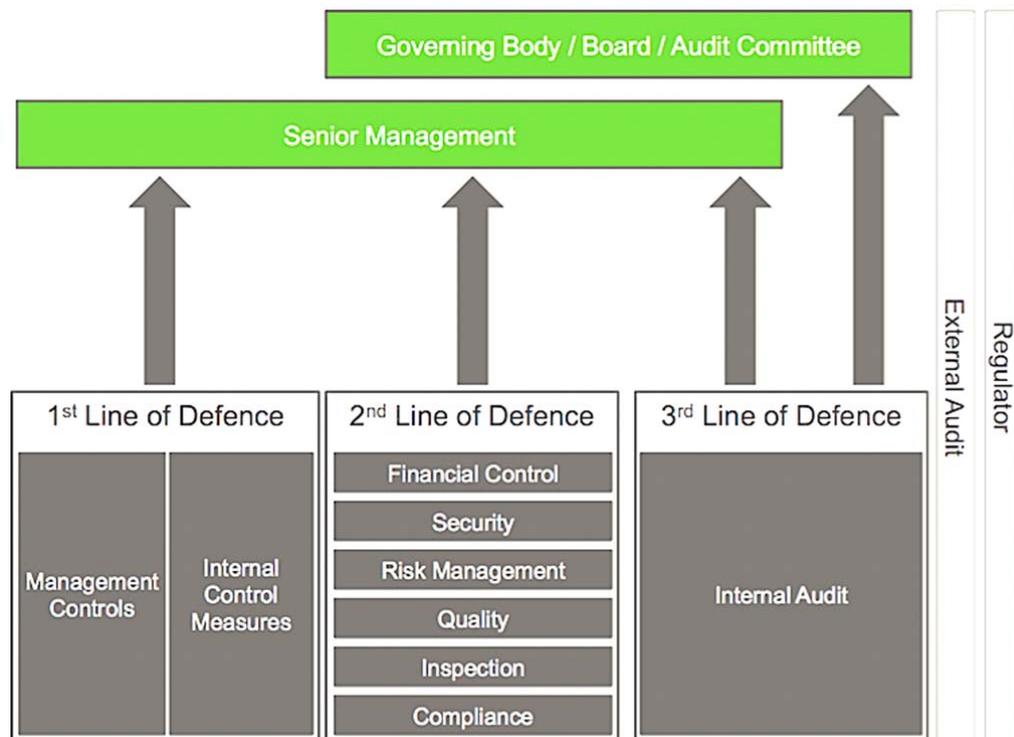
- The Basic Indicator approach, the bank’s operational risk capital should maintain minimum of 12.5 percent on its operating income before tax
- The Advance Measurement approach, the allowance to using bank’s own domestic model to evaluate the operational risk and quantifying the capital buffer necessity
- The Standardized approach, allowing the banks to identify required capital charge under the intimate monitoring of regulators.

With the proven records of financial losses due to the operational risk in many commercial banks, for example, in 2011, HSBC Holdings had to pay \$1.9 billion fine for the absence of adequate control processes in compliance and anti-money laundering. (Akhtar Khan, Singh and S. Raychaudhuri, 2015). This pointed out the importance of operational risk management in financial institution. Spending funds on improvement of the system could reduce the operational risk which can lead to more losses financially and HSBC has spent 290 million dollars on the upgrade of system to prevent money laundering (BBC News, 2012).

## 2.3 Operational Risk Management Framework

It is strongly recommended that Financial Institutions should develop, device and preserve a framework which is incorporated effectively into the bank's general risk management process. The framework could vary depending upon the nature, size, complexity and risk profile of the bank but the direction of the framework remains the same. It is also stated by the Chairman of Federal Reserve American Bankers Association that "It would be a mistake to conclude that the only way to succeed in banking is through ever-greater size and diversity. Indeed, better risk management may be the only truly necessary element of success in banking." (A. Greenspan, 2004)

**Figure (2.1) The Three Lines of Defense (3LoD)**



Source: Anderson and Eubanks (2015)

As per Lubric (2017), the study indicated that the strength of the three lines of defense model could be stronger and more efficient by integrating the quality management principles and risk management principles. This will be great contribution in having complete efficiency and effectiveness of the risk management process. The three lines of defense model is the standard model used by financial

institutions to mitigate risks. Doughty records that the first line is frontline staffs, whose key job is to recognize the responsibilities and certify they are executed precisely and completely day-to-day. Furthermore, the first line of defense needs the personnel to use the internal control in handling the risks related with individual duties. Apart from frontline bodies, a financial institution requires to form the risk management committee to monitor the risks inside the corporation.

The second line of defense is formed with supervision purposes which comprise risk control and compliance. The responsibility of second line contains evaluating risk reporting, contributing in risk reporting committees and certifying risk compliance. Doughty (2011) claimed that it is important to recognized queries associated to risk desire, culture, financial plan, and supervising are frequently guided to the second line of defense.

The last line of defense entails internal auditors who neutrally and detachedly undertake the role of the consultant. They provide assistance to the associations to achieve purposes by initiating systematic tactics toward successful risk management and procedures. Doughty (2011) summaries that the third line of defense contains a advanced level of interdependency in comparison to the first and second line.

## **2.4 Principles for Sound Management of Operational Risk**

In the Sound Practices for the Management and Supervision of Operational Risk (Sound Practices), issued in early 2003, the BCBS expressed a framework of principles for supervision and Practices. Consequently, International Convergence of Capital Measurement and Capital Standards issued in 2006. There is a revision of the framework – Completed Version (generally mentioned as “Basel II”), the Committee expected that industry sound practice would go for the growth.

The knowledge and experience of banks and supervisors have broaden in instigating the frameworks of operational risk management. Loss data collection exercises, quantitative impact studies, and range of practice reviews covering governance, data and modelling issues have also contributed to industry and supervisory knowledge and the emergence of sound industry practice. Later the Committee has decided to update the Sound Practices (2003) in order to reflect the improved sound operational risk management practices which are currently in used.

The Paper referred as “Principles for the Sound Management of Operational Risk and the Role of Supervision” integrates the development of sound practice and specifics eleven principles of sound operational risk management. It covers the following: (1) governance, (2) risk management environment and (3) the role of disclosure. (Basel Committee on Banking Supervision, 2011)

### **The Principle 1: Operational Risk Culture**

The board of directors should initiate in launching a robust risk management culture. It is also stated that there should be a corporate culture which lead toward strong risk management created by the board of directors. That will back and offers suitable standards and incentives to professional and support responsible behaviour. In this context, the board of directors is responsible to enable a strong operational risk management culture lay within the institute. (Basel Committee on Banking Supervision, 2014)

### **The Principle 2: Operational Risk Management Framework**

Financial institutions should create, device and sustain a framework which can be fitted into the organization’s risk management processes. The variation in framework may occurred which rely on few facts whereby the size, nature, risk profile and complexity of the bank. (Basel Committee on Banking Supervision, 2014)

### **The Principle 3: Board of directors**

The framework should be reviewed regularly by the board of directors and give approval to circulation within the organization. The senior management should also be supervised by the board of directors for the effective implementation of policies, processes and systems to all levels of decision making. (Basel Committee on Banking Supervision, 2014)

#### **The Principle 4: Operational risk appetite and tolerance**

The approval and appraisal should also be done by the board of directors where a risk appetite and tolerance statement for operational risk which conveys the nature, types, and altitudes of operational risk that the bank is eager to undertake. (Basel Committee on Banking Supervision, 2014)

#### **The Principle 5: Senior management**

Senior management should advance for support by the board of directors a strong, effective and vigorous governance structure with well stated, transparent and consistent lines of responsibility. The responsibility of senior management is to implement and maintain in consistency toward the organization polices, processes and system in managing operational risk which involve the banks products, actions, procedures and systems steady with the risk appetite and tolerance. (Basel Committee on Banking Supervision, 2014)

#### **The Principle 6: Risk identification and assessment**

Senior management should certify that the evaluating and identifying is done in the operational risk which applies to all bank's products, actions, procedures and systems to ensure the inherent risks and incentives are well assumed. (Basel Committee on Banking Supervision, 2014)

#### **The Principle 7: Change management**

The senior management is responsible for the implementation of approval process which applies to all new products, actions, procedures and system. (Basel Committee on Banking Supervision, 2014)

#### **The Principle 8: Monitoring and reporting**

Senior management should device a procedure to screen operational risk profiles regularly and material exposures to losses. "Appropriate reporting mechanisms that support proactive management of operational risk should be in place at the board, senior management, and business line levels." (Basel Committee on Banking Supervision, 2014)

**The Principle 9: Control and mitigation**

“Banks should have a strong control environment that utilises policies, processes and systems, appropriate internal controls, and appropriate risk mitigation and/or transfer strategies.” (Basel Committee on Banking Supervision, 2014)

**The Principle 10: Business resilience and continuity**

“Banks should have business resiliency and continuity plans in place to ensure an ability to operate on an ongoing basis and limit losses in the event of severe business disruption.” (Basel Committee on Banking Supervision, 2014)

**The Principle 11: Role of disclosure**

“A bank’s public disclosures should allow stakeholders to assess its approach to operational risk management.” (Basel Committee on Banking Supervision, 2014)

## **2.5 Literature Review**

The “Principles for the Sound Management of Operational Risk” was published by the Basel Committee on Banking Supervision in June 2011 as a guideline toward management of operational risk in financial institutions.

In June 2011 the Basel Committee on Banking Supervision published its “Principles for the Sound Management of Operational Risk”<sup>1</sup> (“the Principles”) to provide guidance to banks on the management of operational risk. The eleven principles incorporate the lessons from the financial crisis and the evolution of sound practice for management of operational risk. The Principles cover governance, the risk management environment and the role of disclosure, and address the three lines of defence (business line management, an independent corporate operational risk management function and an independent review).

In light of the significant number of recent operational risk-related losses incurred by banks, and consistent with the Committee’s greater focus on monitoring the implementation of its standards and guidance, earlier this year the Basel Committee conducted a review of the implementation of its Principles.<sup>2</sup> The review involved 60 systemically important banks in 20 jurisdictions and covered all 11 principles with a specific focus on the guidance related to the three lines of defence. The exercise was designed as a questionnaire by which banks self-assessed their implementation of the Principles. While it was conducted under the overall supervision of the Basel Committee and the respective supervisory authorities, the review did not involve an onsite validation of the banks’ responses.

The objectives of the exercise were to (i) establish the extent to which banks have implemented the Principles, (ii) identify significant gaps in their implementation and (iii) highlight emerging and noteworthy operational risk management practices at banks that are not currently addressed by the Principles.

A questionnaire was used to solicit self-assessments from participating banks. The questionnaire contained 180 questions and was completed by 60 systemically important banks across 20 jurisdictions. The questionnaire covered all 11 Principles as well as the on the overarching guidance related to the three lines of defence.

Banks were asked to self-assess and rate their operational risk management practices on a rating scale of “1” to “4” or “N/A”. The four ratings were defined as follows:

- 1 - Principle has not been implemented
- 2 - Principle is materially not complied with
- 3 - Principle is largely complied with
- 4 - Principle is fully complied with

The Principles for the Sound Management of Operational Risk (“the Principles”), as updated and published in June 2011, cover (i) fundamental principles of operational risk management, (ii) governance, and (iii) the risk management environment.

In December 2012, the BCBS’s Working Group on Operational Risk (WGOR) established a work stream to undertake a review of the implementation of the Principles. Conducted via a questionnaire, the review aimed to:

- Identify and understand the degree to which banks have implemented the Principles;
- Identify common significant gaps at banks related to the implementation of the Principles; and
- Identify emerging and noteworthy practices in operational risk management that are used by banks but which are not currently addressed by the Principles.

## **Chapter 3**

### **Operational Risk Practices in KBZ Bank Limited**

This chapter will mainly discuss the KBZ Bank's practices related to operational risk and the profile of the bank.

#### **3.1 Profile of KBZ Bank Limited**

Kanbawza Bank (KBZ Bank) was founded on the 1st of July 1994 in Taunggyi, situated in the southern part of Shan State. Primarily, the bank provided basic financial services to the local population in Taunggyi. In November 1999, our current management acquired the bank from former owners who were professors and oversaw its development into one of the biggest private commercial banks in Myanmar. KBZ Bank is now Myanmar's largest privately-owned bank, with over 500 branches. Headquarter is in Kamayut Township in Yangon, Myanmar.

KBZ Bank presently accounts for approximately 40 percent market share of both retail and commercial banking in the country. The bank is leading the way, particularly in digital and technology, for Myanmar's rapidly developing financial services industry through an approach that understands the opportunities of innovation, the needs of the Myanmar people and the unique context of the country's economy.

As Myanmar's economy expands and opens up, KBZ Bank sees exciting opportunities to work with international investors, providing an important and critical bridge to Myanmar's fast-growing cities, entrepreneurs and local communities.

#### **3.2 Mission and Vision**

The KBZ Bank's vision is to improve the quality of life in Myanmar through banking. And the Mission is to become the best-managed bank in the world.

That is simply what Myanmar needs and deserves. KBZ Bank is guided by a belief and a culture that runs throughout the entire organization: being good to people and doing the right thing. That is why we are driven by our three values:

- Metta, – Loving kindness
- Thet Ti – Courage

- Virya – Perseverance

The Bank's motto is "Strength of Myanmar"

### **3.3 Organizational Structure**

#### **Board of Directors**

As part of the on-going strengthening of the corporate governance of KBZ Bank the following were appointed individuals were appointed in 2018 and the Board meets monthly. The board of directors' member are Independent Chairman, Independent Vice Chairman, Independent Director, Executive Director and two Non-Executive Directors.

#### **Senior Management Team**

The Management Team as of August 2019 consists of seven members such that Chief Executive Officer, three Deputy Chief Executive Officers, Chief Financial Officer, Chief Operation Officer and Chief Risk Officer.

#### **Board Level Committees**

There are three main committees run by the board members namely, Board Audit Committee (BAC), Board Risk Committee (BRC), Board Credit Committee (BCC)

#### **Management Level Committees**

There are two main committees run by management level members and related department heads, Management Credit Committee (MCC) and Assets and Liability Committees (ALCO)

### 3.4 Financial Products by KBZ Bank

The feature product, KBZPay is a mobile wallet that connects people to a digital economy that was once out of reach for many. Introduced in 2018 in line with KBZ Bank's ambition toward 100% financial inclusion to support Myanmar's development ambitions and needs, KBZPay brings financial services beyond the physical branches of the bank and into the palms of customers' hands.

Millions of customers now enjoy a new banking experience, using KBZPay to manage their money, pay for goods and services, store cash, remit to loved ones and conduct daily financial tasks that were once labour-intensive and time consuming. KBZPay utilises the best and safest technology and with the support of KBZ Bank's 18,000 staff, it is now the leading mobile wallet in Myanmar, connecting customers with thousands of merchants and agents across the country everyday. [www.kbzpay.com](http://www.kbzpay.com) and [www.facebook.com/KBZPay](https://www.facebook.com/KBZPay)

**Table (3.1) List of Products by KBZ Bank**

| No. | Product         | Name  |
|-----|-----------------|---|
| 1   | Accounts        | Current Account, Saving Account, Fixed Deposit Account, Call Deposit Account, Children's Saving Account, Foreign Currency Account |
| 2   | Cards           | Explore Debit Card(MPU), Prepaid Card(Visa & Master), Teen Card (MPU), Union Pay Credit Card, Visa Credit Card                    |
| 3   | Loans           | Shopper Installment Loan, Hire Purchase, Overdraft, Home Mortgage   |
| 4   | Remittance      | Local and Foreign remittance  |
| 5   | Cash Management | Payroll, Collection, Liquidity Management, Supplier/Dealer Payment  |
| 6   | Trade Finance   | Export/Import Documentary Credit, Documents Collections, Bank Guarantees  |
| 7   | Trust Services  | Escrow Service, Onshore Security Agent Services   |
| 8   | Other Services  | KBZPay Life Insurance, Bank Certificate, E-commerce, Safe Deposit Locker  |

Source: <https://www.kbzbank.com/en/>

### **3.5 Moving Forward**

As the KBZ bank is moving forward by internationalizing with the compliance of CBM policies and regulations, there are policies which currently practiced by the bank such as Whistleblowing Policy, Professional Behaviour Policy, No Gift Policy, Grievance Procedure, Disciplinary Procedures and Code of Conduct. This is the integration part of Corporate Governance structure of the Bank and allowing the bank to grow with minimum risk to operate.

#### **Code of Conduct by KBZ Bank**

In everything we do, we must ensure that we are acting in the best long-term interests of our customers, our communities and for KBZ Bank. The KBZ Bank Code of Conduct (the “Code”) sets out the principles and standards of behaviour that we expect of everyone who works for KBZ. These principles define us, and are the standards by which we deal with our customers, business associates, stakeholders and each other. The Code upholds our core values of Teamwork and Cooperation, Honesty, Enthusiasm, Mutual Trust and Respect, Integrity, Leadership and Dedication

This Code covers all employees, whether they are part-time, full-time or term-contract, working with the Bank and its representative offices.

Each of us should use the Code in our daily work as it enables us to make good choices, behave responsibly and act with the highest integrity in everything we do. Integrity is and must always be the cornerstone of our business operations and the starting point of all our actions and decisions. Our reputation for excellence is a key competitive advantage and we must never do anything to put that reputation at risk. (KBZ Bank, 2019)

## Chapter 4

### **Analysis on KBZ Bank’s compliance toward the Principles for Sound Management of Operational Risk**

This Chapter focuses on analysis of compliance toward the Principles for Sound Management of Operational Risk in KBZ Bank. And there are three main parts in the chapter 4, the research methodology, demographic information of respondents and the assessment on “the principles for the sound management of operational risk” in the KBZ Bank Limited.

#### **4.1 Research Methodology**

The analysis is done based on the primary data obtained by 4 point Likert scale questionnaire. As stated in the scope and method, sample is achieved from 20 personnel who are in mid-level management (Department Heads) and senior management (Executive level). In the review of Basel Committee on 11 Principles, there are 149 of emerging and noteworthy practices were questioned to the 60 systemically important banks in 20 countries. The questionnaires in this paper were referred from the 149 practices but only 52 of them will be used because of the Basel standard adoption Myanmar which is not yet adopted and not applicable to use currently.

#### **4.2 Respondents’ Demographic Information**

The information includes age, gender, experience year in Banking and Finance Industry, Education level and Nationality.

**Table (4.1) Age of the Respondents**

| Age Range | Number | Percentage |
|-----------|--------|------------|
| 25-30     | -      | -          |
| 30-35     | 2      | 10%        |
| 35-40     | 3      | 15%        |
| 40-50     | 9      | 45%        |
| 50-60     | 5      | 25%        |

|          |    |      |
|----------|----|------|
| 60 above | 1  | 5%   |
|          | 20 | 100% |

**Source: Survey data (2019)**

There are six age group range and found that majority of the respondents are between 40 to 50 years old. The reason can be due to their position holding at the bank as senior management level.

**Table (4.2) Gender of the respondents**

| Gender | Number | Percentage |
|--------|--------|------------|
| Male   | 18     | 90%        |
| Female | 2      | 10%        |
|        | 20     | 100%       |

**Source: Survey data (2019)**

The table above shows the gender of participants and found that the majority of them are men even though the KBZ Bank is actively participate in the gender equality campaigns. It could be the reason as the culture and tradition of the country whereby the involvement of women are still not very active in high level decision making. But the result can be close to equal proportion in the future.

**Table (4.3) Experience Year in Banking and Finance industry**

| Year in Banking and Finance industry | Number | Percentage |
|--------------------------------------|--------|------------|
| Under Five Year                      | -      | -          |
| 5-10 Year                            | 2      | 10%        |
| 10-20 Year                           | 10     | 50%        |
| Above 20 Year                        | 8      | 40%        |
|                                      | 20     | 100%       |

**Source: Survey data (2019)**

The table above shows the year of experience of the participants, and found that it is very long term based career and most the people in senior position have long

service time in the industry. It is an unavoidable truth that the professional career is built on years of experience in order to reach higher level of authority in any organization especially in bank and finance industry because the historic events are the best lessons to be learnt.

**Table (4.4) Educational Level of the respondents**

| <b>Education Level</b> | <b>Number</b> | <b>Percentage</b> |
|------------------------|---------------|-------------------|
| High School            | -             | -                 |
| Bachelor Degree        | 13            | 65%               |
| Master Degree          | 7             | 35%               |
| Ph.D                   | -             | -                 |
| Other                  | -             | -                 |
|                        | 20            | 100%              |

**Source: Survey data (2019)**

The table above shows the educational level of participants, and found that majority are Bachelor degree holders. It could be the reason as the expertise in banking industry is usually determined by the years of experience served in banks. But there is a minimum level of education is required in every career.

**Table (4.5) Nationality of the respondents**

| <b>Nationality</b> | <b>Number</b> | <b>Percentage</b> |
|--------------------|---------------|-------------------|
| Myanmar            | 10            | 50%               |
| Foreign Expatriate | 10            | 50%               |
|                    | 20            | 100%              |

**Source: Survey data (2019)**

The table above shows the Nationality of the participants, it is added to the questionnaire because the country has opened up for the foreign investment and going toward the internationalization. It would be helpful to have the knowledge of the foreign contribution in the organization. At the same time, the inflow of foreign expertise has significantly increase over past few years and large local conglomerates are catching up with the speed to get internationalized with the help of these foreign

expertise. As we can see in the table above, there is an equal distribution of local and foreign employees in the KBZ Bank.

#### 4.3 Assessment on ORMF with Emerging and Noteworthy practice in KBZ Bank

This assessment contributes as the main portion of the study, the operational risk management practices of KBZ Bank with emerging and noteworthy practices from BCBS 292 are analyzed. There are total of 52 emerging and noteworthy practices referred from the published paper of “The Principles for the Sound Management of Operational Risk”.

The assessment was carried out from principle 1 to principle 10 in order:

##### **The principle 1: Operational Risk Culture** (BCBS 292, 2014)

The principle one is the development of operational risk culture within the organization by the board of directors, the details result from the survey can be seen as below table.

**Table (4.6) The principle 1: Operational Risk Culture**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>   | <b>Mean</b> |
|--------------------|--|-------------|
| Q1                 | The code of conduct or ethics policy applies to all the bank’s staff and appointees, including members of the board of directors.  | 3.5         |
| Q2                 | The code of conduct or ethics policy is regularly reviewed and attested to by employees, is regularly approved by the board of directors, and is publicly available on the bank’s website. | 2.2         |
| Q3                 | Establishment and implementation of a whistle-blower programme.  | 4           |
| Q4                 | Customized and mandatory operational risk training for many roles including business unit operations, supervisory levels, senior management, and the board of directors.                   | 2           |

|    |   |     |
|----|---|-----|
| Q5 | Establishing operational risk awareness for all employees; more advanced training on the operational risk identification and assessment tools, and processes and policies for individuals with operational risk responsibilities. | 1.5 |
|    | Overall Mean for Principle One  | 2.2 |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle one is 2.2 and it is in between the guideline rating of 2 and 3, which is “the principle is materially not complied with” and “Principle is largely complied with”. But it is weighted toward the 2. We can say that the operational risk culture in KBZ Bank for principle one is significantly not complied but there are rooms for improvement as there is existing practices such as code of conduct and whistle-blower programme are largely obeyed with the principle one. The board of directors is accountable for taking lead in founding a strong risk management culture within the organization.

#### **The principle 2: Operational Risk Management Framework (BCBS 292, 2014)**

The principle 2, it is regarding the establishment of operational risk management framework (ORMF) by the financial institutions and integration of the framework into the risk management process of the institution. The details result of the survey can be seen in the table below.

**Table (4.7) The principle 2: Operational Risk Management Framework**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q6                 | The ORMF was reviewed and updated to ensure alignment following the publication of the enhanced <i>BCBS Principles for the Sound Management of Operational Risk</i> in June 2011. | 0.6         |
| Q7                 | Referencing the relevant operational risk management policies and procedures.   | 0.9         |

|     |   |     |
|-----|---|-----|
| Q8  | Applying the ORMF to all the bank's material operating groups and entities, including subsidiaries, joint ventures and geographic regions.  | 0.3 |
| Q9  | The ORMF requires consistent implementation of the bank's operational risk taxonomy across all business lines and operational risk tools.   | 0.3 |
| Q10 | Describing the roles and responsibilities of each of the three lines of defense as they relate to the use of the operational risk identification and assessment tools.                    | 1.5 |
| Q11 | Establishing the mandates, membership, and representation of various operational risk governance committees.  | 1   |
| Q12 | Establishing a quality assurance programme to ensure that independent challenge and review, as applied by the second line of defense, results in consistent risk and control assessments. | 1.5 |
|     | Overall Mean for Principle Two  | 0.9 |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle two is 0.9 and it is in between the guideline rating of 0 and 1, which is "Not Applicable" with and "Principle has not been implemented". But it is weighted toward 1. We can say that the ORMF in KBZ Bank is not implemented yet. According to the BCBS guideline, banks should have a framework related to the operational risk in order to have sound management in operational risk. The structure and complexity of the framework may vary according to the Bank's size, nature and its risk profile. For the KBZ Bank, it is highly recommended that establishing a ORMF will protect the bank for undesired financial losses.

### **The principle 3: Board of directors (BCBS 292, 2014)**

The principle 3 states that the board of directors should establish the policies and code of conduct. And review the published policies and supervise the senior management to implement the policies successfully. The details result of the survey can be seen in the table below.

**Table (4.8) The principle 3: Board of directors**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q13                | Establishing a code of conduct or an ethics policy that sets clear expectations for integrity and ethical values of the highest standard and identifies acceptable business practices and prohibited conflicts.   | 3.5         |
| Q14                | The board regularly challenges senior management on the design and effectiveness of the bank's operational risk management framework.   | 1           |
| Q15                | The board reviews and approves an operational risk strategy that sets forth the long-term vision for the programme and the initiatives planned to support implementation.   | 3           |
| Q16                | The board supports the establishment of a formal culture communications strategy, whereby senior management communicates the importance of strong risk management practices through a variety of forums such as employee communications and formal training sessions. | 2.2         |
| Q17                | The board ensures that internal audit includes the ORMF as a focus within business unit audits, to complement the overall audit of the ORMF.  | 2           |
|                    | Overall Mean for Principle Three  | 2.0         |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle three is 2.0 and it is exactly on the guideline rating of 2, which is "Principle is materially not complied with". The overall mean of rating is dropped to 2, it is mainly due to the ORMF where by it is scored only 1. The score of 3.5 in code of conduct shows the KBZ bank is strongly focused on it and it is moving toward the good corporate

governance practices. In fact, the bank is reinforced its risk department with foreign expatriates and the board is overseeing the senior management team in order to draw operational risk strategy and establishing the ORMF materially.

**The Principle 4: Operational risk appetite and tolerance (BCBS 292, 2014)**

The principle 4 also mentions the responsibility of the board of directors regarding the operational risk appetite and tolerance. The details result of the survey can be seen in the table below.

**Table (4.9) The Principle 4: Operational risk appetite and tolerance**

| Question No | Emerging and Noteworthy Practices   | Mean |
|-------------|---|------|
| Q18         | Defining operational risk appetite and tolerance at both a divisional and taxonomy level.   | 1.5  |
| Q19         | Utilizing both quantitative and qualitative components within the bank’s operational risk appetite and tolerance statement.   | 1    |
| Q20         | Setting limits based on established key risk indicators such as loss metrics, deficiencies, events and residual risk assessments using operational risk identification and assessment tools that have been implemented. | 1    |
|             | Overall Mean for Principle Four   | 1.2  |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle four is 1.2 and it is in between the guideline rating of 1 and 2, which is the “principle has not been implemented” and “principle is materially not complied with”. But it is weighted toward the 1. We can say that the board of directors is not focused on approval and review of the risk appetite and tolerance which is the bank is willing to undertake. Even though, the Bank is building a strong foundation on credit risk by having Board Credit Committee and Management Credit Committee. It could be the reason due to the market competition is getting high in lending against foreign banks operating in

Myanmar. In other word, the bank is focusing on revenue instead of financial loss arise from operational risk. In brief, both of the risks are equally important for a bank.

**The Principle 5: Senior Management (BCBS 292, 2014)**

The principle 5 states that the senior management should seek for approval from the board of directors regarding in building and implementation of good governance structure of the bank. The details result of the survey can be seen in the table below.

**Table (4.10) The Principle 5: Senior Management**

| Question No | Emerging and Noteworthy Practices  | Mean |
|-------------|--|------|
| Q21         | Ensuring that an appropriate level of operational risk training is available at all levels throughout the organization and that the training reflects the seniority, role and responsibility of the individuals for whom it is intended. | 1    |
| Q22         | Membership of the operational risk committee consists of the first line of defence, the CORF, and other second line of defence control functions.  | 1    |
| Q23         | ORC meetings are convened regularly, minutes are prepared, and action items are tracked to completion.   | 1    |
| Q24         | Succession plans for key operational risk individuals have been established to ensure continuation of critical operations and maintenance of expertise.  | 1    |
|             | Overall Mean for Principle Five  | 1.0  |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle five is 1.0 and it is exactly on the guideline rating of 1, which is “Principle has not been implemented”. It means that the senior management team is not giving attention on the operational risk and its losses. They could initiate and persuade the board of directors to form a operational risk committee (ORC) and form a function for corporate operational risk function (CORF). It is currently under the supervision of Corporate and Wholesale Banking Head alone.

### The Principle 6: Risk Identification and assessment (BCBS 292, 2014)

The principle 6 states that the senior management should be actively involved in risk identification and assessment of the operational risk which related to all the bank's products, activities, processes and systems. The details result of the survey can be seen in the table below.

**Table (4.11) The Principle 6: Risk Identification and assessment**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q25                | The consideration of internal audit findings as an input to the various operational risk management tools (e.g. RCSAs, scenarios, key risk/performance indicators etc.).  | 2.5         |
| Q26                | The bank employs a process that considers audit findings in the challenging of business self-assessments.   | 3           |
| Q27                | The bank's audit function conducts a detailed end-to-end analysis of the operational risk profile assessment process, including assessments of process governance, the detail and quality of reporting, the process by which deficiencies are identified, tracked, and remediated, and generally whether the programme is functioning in a manner consistent with established policies. | 1.8         |
| Q28                | The use of internal audit findings to compare management's risk and control assessments with the various operational risk management tools.   | 2           |
| Q29                | The use of internal audit findings as an input to the regular updating of the bank's operational risk profile.  | 2           |
| Q30                | Monitoring the number of open and overdue internal audit issues as a key indicator.   | 3           |
| Q31                | Establishing key risk and performance indicators at multiple levels throughout the bank, including at the group-wide level, the divisional level, and the individual business-line level.   | 3           |
| Q32                | KRIs, KPIs and escalation triggers are subject to regular   | 3           |

|     |   |     |
|-----|---|-----|
|     | review and enhancement.   |     |
| Q33 | The first line of defense creates action plans for metrics that breach their respective thresholds.                                   | 3   |
| Q34 | The second line of defense independently challenges the selection of indicators and thresholds, as well as the proposed action plans. | 3   |
|     | Overall Mean for Principle Six  | 2.6 |

**Source: Survey data (2019)**

As per the result from above table, the overall mean for principle six is 2.6 and it is in between the guideline rating of 2 and 3, which is “the principle is materially not complied with” and “Principle is largely complied with”. But it is weighted slightly toward 3, we may say that the risk identification and assessment process in KBZ Bank is slowly building up toward the sound practices. The senior management team is moving to the risk based analysis in its businesses activities with the aid of audit findings. The internal audit team of the KBZ Bank is considered strong but it is important to use the findings and implement the actions in order to avoid unnecessary operational risk losses. But there are still rooms for the improvement to do proper analysis like detailed end-to-end analysis. To note that the study in this section (Principle 6) is mainly focused in audit findings and risk and performance indicators.

#### **The Principle 7: Change Management (BCBS 292, 2014)**

The senior management should take responsibility in implementing the process of approval which related to all new products, procedures and systems. The details result of the survey can be seen in the table below.

**Table (4.12) The Principle 7: Change Management**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>   | <b>Mean</b> |
|--------------------|--|-------------|
| Q35                | Alignment of risk and control assessments, within the change management process, with the bank’s operational risk taxonomy to allow for integration and aggregation of results within the bank’s overall risk profile. | 2.5         |

|     |   |     |
|-----|---|-----|
| Q36 | A formal project governance programme that involves several approvals or “gates” through the life of a new product or initiative.   | 2.5 |
| Q37 | The bank has defined objective criteria and procedures to identify new activities, products, technology systems, or business with geographically distant markets.   | 2.5 |
| Q38 | The bank has clearly allocated roles and responsibilities for both the first and second lines of defense in order to assess the risk exposure relating to change initiatives in line with the accepted risk appetite of the bank. | 2.5 |
| Q39 | The identification of controls or actions required, either pre- or post-implementation, which are closely monitored by the second line of defense to ensure remediation.  | 2   |
| Q40 | Establishing oversight committees to monitor the implementation of new product and new initiative frameworks as well as to review and approve specific business cases.  | 2   |
|     | Overall Mean for Principle Seven  | 2.3 |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle seven is 2.3 and it is in between the guideline rating of 2 and 3, which is the “Principle is materially not complied with” and “Principle is largely complied with”. But it is weighted toward the 2. It can be concluded that the senior management can improve in having the approval process which completely integrate the operational risk for all new products, activities and systems. Compared to others principles, it is scored higher and we can assume that the senior management has formed the committee or function to give approval in new products.

### **The Principle 8: Monitoring and Reporting (BCBS 292, 2014)**

The principle 8 states that the senior management should deploy a procedure in screening of operational risk profiles and substantial exposure losses habitually. The details result of the survey can be seen in the table below.

**Table (4.13) The Principle 8: Monitoring and Reporting**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q41                | Production of operational risk reports on a regular (ie quarterly or monthly) basis that are distributed to senior management and/or the board.   | 1.2         |
| Q42                | Operational risk reports include an operational risk profile for the bank, including the inherent and residual risk levels for its taxonomy.  | 1.3         |
| Q43                | Operational risk reports include details of key and emerging operational risks.   | 1           |
| Q44                | Operational risk reports include an effective balance of qualitative and quantitative information.  | 1           |
| Q45                | Operational risk reporting includes an appropriate balance of information related to changes in both the business environment and operational risk data (loss data, KRIs), and includes an update of key operational risk action items. | 1           |
|                    | Overall Mean for Principle Eight  | 1.1         |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle eight is 1.1 and it is in between the guideline rating of 1 and 2, which is the “principle has not been implemented” and “principle is materially not complied with”. But it is weighted toward the 1. The conclusion can be drawn that KBZ Bank is weak in implementing to form a process which can regularly monitor the operational risk profiles and materials exposure to losses.

### The Principle 9: Control and mitigation (BCBS 292, 2014)

The principle 9 is related to the creation of strong control atmosphere and the details result of the survey can be seen in the table below.

**Table (4.14) The Principle 9: Control and mitigation**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q46                | The use of metrics for comparison of returns (by business unit, by product) with the budget (projected outcome), fluctuation of daily P&L (specifically in trading/financing business unit) and specific transactions with an irregular return ratio. | 2.5         |
| Q47                | Clear assignment of both first and second line of defence responsibilities as they relate to the assessment and control of outsourcing risk.  | 2           |
| Q48                | The use of operational risk management tools (ie RCSAs, KRIs etc) to help manage outsourcing risks.   | 1           |
| Q49                | The development of contingency plans and alternative/backup arrangements for material outsourcing arrangements.   | 1           |
|                    | Overall Mean for Principle Nine   | 1.6         |

**Source: Survey data (2019)**

As per the result from above table, the overall mean for principle nine is 1.6 and it is in between the guideline rating of 1 and 2, which is the “principle has not been implemented” and “principle is materially not complied with”. But it is weighted toward the 2. The KBZ Bank has developed standard sets of documents such as Standard Operation Procedures (SOPs) and Service Level Agreements (SLAs) related to its products which control and mitigation. Nevertheless, the development of operational risk management tools is not taken in place. As per principle 9, banks are encouraged to have a strong control environment which exploits policies, processes and systems, appropriate internal controls and appropriate risk mitigation or transfer strategies.

### **The Principle 10: Resiliency and Continuity (BCBS 292, 2014)**

The principle 10 is regarding the resiliency and continuity of businesses during the period of disruptive events. The details result of the survey can be seen in the table below.

**Table (4.15) The Principle 10: Resiliency and Continuity**

| <b>Question No</b> | <b>Emerging and Noteworthy Practices</b>  | <b>Mean</b> |
|--------------------|---|-------------|
| Q50                | Well established process to identify and categorize the criticality of business functions, vulnerabilities and disruptive impact, and the establishment of thresholds for activation of business continuity plans (e.g. maximum tolerable outage etc.). | 3           |
| Q51                | The integration of disruptive scenario analysis into other risk management tools and processes (e.g. KRIs, Pillar II etc.).   | 1           |
| Q52                | The provision of customized business continuity training to staff, according to their specific roles, as well as regular review of the training to ensure its applicability.  | 2           |
|                    | Overall Mean for Principle Ten  | 2.0         |

**Source: Survey data (2019)**

As the per the result from above table, the overall mean for principle ten is 2.0 and it is exactly on the guideline rating of 2, which is “Principle is materially not complied with”. Even though, the Bank is in compliance with the Q50, the integration part of disruptive scenario analysis into the risk management tools and processes is still not implemented. This is mainly due to the lack of development in operational risk management tools. The employees get the training from time to time, but the process of training has not been materialized. The principle 10 can be very useful for Myanmar Banks to apply as the economic environment in the country is not very stable and it is also linked to disruptive political situation domestically.

## **Chapter 5**

### **Conclusion**

This chapter will be the last session of the paper, it will include Findings, Suggestions and Recommendations and Need for Further Research. In conclusion, I would like to share the benefits of writing this paper such as importance of operational risk in financial institutions, impact of the risk and financial losses. There are primary participants who can encourage and accelerate the change namely, institutional shareholders (investors), supervisors, lawmakers and Central Banks. Improve

When transparency turns out to be cloudy, the reaction of market will be adverse as it is harder to forecast the default (Young and Coleman, 2012). That is why it is very important to aware that transparency plays a vital role in managing operational risk. The operational risk management has to improve especially in Myanmar.

The digitization, automation and outsourcing are important factors which banks should take account into consideration and react according to the change of risk profile.

In order to prevent unnecessary fines and image of the bank, financial institutions have to catch up with the updated technologies and potential threats (Financier Worldwide, 2019). And also should make investment in analytics, risk controls and risk culture to build up the organization's risk culture.

## 5.1 Findings

To serve the purpose of analyzing the compliance of KBZ Bank toward the Principles for Sound Management of Operational Risk, a survey with 52 questionnaires is conducted in October and November 2019. The participants are mainly from the senior management team, the executive level officers and department heads from KBZ Bank. The brief explanation of questionnaire used in the survey, there are three parts included in it such as the questionnaire rating guideline, the demographic information and assessment of the Operational Risk Management Framework and Principles for Sound Management of Operational Risk. As the questionnaire used in the survey covered ten principles, the findings will be discussed accordingly.

The second part of the survey is the demographic information of the KBZ Bank, there are some findings which lead to interesting background of the organization and industry. It is found that the majority of the senior management team members are middle age personnel between 40 to 50 years and it contributes 45% of the participants, the highest percentage. It is no surprising for middle age people holding senior position but there are young adults from age 30 to 35 working in the leading role of the bank, which can bring the organization to the top with fresh ideas. Another finding is that there is very low composition of female personnel in executive level management of the Bank, which is only 10% out of 100%. Even though, the bank is actively involved in gender equality campaign.

There is also a usual findings, years of experience in the industry and educational level which are high for professionals. Most of them have minimum of ten years in the industry and more. They are also well educated people with bachelor or master degrees. The last part of the demographic information is the nationality of respondents and it is added to have knowledge regarding the foreign talent contribution in the organization. It is also found that fifty percent of the senior management team is foreign expatriates. The next findings will be the assessment of the “emerging and noteworthy practices” by BCBS (Basel Committee on Banking Supervision, 2014).

Regarding the Principle 1, it is found that the overall mean score is close to 2, which can be interpreted as the principle is not practiced by KBZ bank. To recall the main purpose of principle, it is stated that the board of directors hold responsibility to create a strong risk management culture for the institution. There are existing practices and policies in the bank but the establishment of risk management committee is not found or initiated.

Regarding the Principle 2, it is found that the overall mean score is very low with 0.8 which means the KBZ bank has not initiated or no progress toward the ORMF and can be concluded that the implementation of the principle is not found.

Regarding the Principle 3, it is found that the overall mean score is 2 and it is considered that the KBZ Bank is not complied with major aspects of the principles but only minor parts, such as the code of conduct and ethics policy.

Regarding principle 4, it is found that the overall mean score 1.2, and the KBZ bank is non-compliant to the principle completely. KBZ Bank's board of directors is not actively involved in approval and reviews on the risk appetite and tolerance.

Regarding principle 5, it is found that the overall mean score is only1, the KBZ Bank's senior management is not taken action to push further for the approval of the board of directors for operational risk trainings and risk function committee.

Regarding principle 6, it is found that the overall mean score is 2.6, and the conclusion can be drawn as the KBZ bank is slightly improving on risk assessment and identification process by using the help of internal audit tea. It is important to apply the findings to make amendment in risk based analysis.

Regarding principle 7, it is found that the overall mean score is 2.3, KBZ Bank is still a major non-compliant in the principle yet the integration part of the approval process in new products is on the way.

Regarding principle 8, it is found that the overall mean score is 1.1, the KBZ bank is not implemented the principle at all, it is entirely not implemented to the Bank.

Regarding principle 9, it is found that the overall mean score is 1.6, even though the KBZ Bank has standard set of documents for control and mitigation process but it is still very weak in developing operation risk management tools.

Regarding principle 10, it is found that the overall mean score is 2, the KBZ bank is still weak in integrating the scenario analysis of disruptive events and providing training to staffs related their respective duties and review to make changes suit to the needs of trainings.

## 5.2 Suggestion and Recommendation

The intensive survey produced remarkable results which are very useful for the Bank especially in operational risk management. There can be many suggestions but it is very critical to take the organization's capability into consideration. Since the KBZ Bank has been in the market for over two decades, the organizational structure of the Bank has improved significantly and going toward the strong corporate governance. In fact, the KBZ bank has been working strictly on the credit risk management by having foreign expatriate with careful lending processes. The suggestion would be divided into two parts such as, view of having the three major risks (credit, operation and market) which banks usually face into equal weight of risk. Secondly, KBZ Bank should consider investing more in both human resources and technologies to develop tools for operational risk measurement and management.

The compliance of the principles for sound management of operational risk should also be the concern for regulatory body such as the Central Bank of Myanmar. The Bank alone may not be so proactive in applying the principles to the Bank. It would be great initiative for the whole industry if the Central Bank is involves in the approach and it will also play a part in bridging the compliance of Basel II to Basel III. In fact, the original principles mentioned in the review published by BCBS in 2014 include eleven principles. It was left out in the survey due to the applicability of the principle which related to the disclosure of information to the stakeholders.

The recommendation for the KBZ Bank after carefully analysed the survey would be to improve on principle 5 which stated that the initiative of senior management to seek for approval form board of directors in creating a operation risk committee. As the principle has not been implemented or suggested to the board members. The KBZ Bank's senior management is mainly formed with foreign expatriates who have years of experience in banking industry in developed economy. The contribution of their expertise would be extremely helpful to the bank and to the board members as well as the industry as a whole.

Another recommendation would be on the principle one which is the creation of operation risk culture within the bank, the survey result reveals that the bank scored

moderately that some of the policies and code of conduct are already in place but improvements can be done in raising awareness in operational risk and provision of advanced training to the staffs.

### **5.3 Need for further research**

This analysis study is done on selected individual private bank in Myanmar which is the KBZ Bank, and also the questionnaire used is chosen only based on the knowledge and ability of individual scholar. Due to this, the view on the analysis may not be up to standard of international banking. If there is opportunity, reputable organization from overseas or locally established one may go for further research with larger scale and scope, meaning that there could be few of local private banks as participants and comparison can be done among the participants.

## References

- Akhtar Khan, J., Singh, K., & S. Raychaudhuri, P. (2015). A Study of Operational Risk in Banking Sector with special reference to achieving the Operational Efficiency in Banks. *International Research Journal Commerce Arts Science*, 6(12).
- Balthazar, L. (2006). *From Basel I to Basel III* (1st ed.). London: Palgrave Macmillan.
- Basel Committee on Banking Supervision. (2011). *Principles for the Sound Management of Operational Risk*. Retrieved from <https://www.bis.org/publ/bcbs195.htm>
- Basel Committee on Banking Supervision. (2014). *Review of the Principles for the Sound Management of Operational Risk*. Retrieved from <https://www.bis.org/publ/bcbs292.htm>
- Code Of Conduct - KBZ Bank. (2019). Retrieved 21 December 2019, from <https://www.kbzbank.com/en/code-of-conduct/>
- Crouhy, M., Galai, D., & Mark, R. (2014). *The essentials of risk management* (2nd ed., p. 72). New York: McGraw-Hill.
- Doughty, K. (2011). The Three Lines of Defence Related to Risk Governance. *ISACA JOURNAL*, 5.
- Finel-Honigman, I., & B. Sotelino, F. (2015). *International banking for a new century* (1st ed.). New York: Routledge.
- Greenspan, A. (2004). Operational Risk Management (ORM) Framework in Banks & Financial Institutions. Retrieved 21 December 2019, from [https://www.metricstream.com/solution\\_briefs/ORM.htm](https://www.metricstream.com/solution_briefs/ORM.htm)
- History of the Basel Committee. (2014). Retrieved 20 December 2019, from <https://www.bis.org/bcbs/history.htm?m=3%7C14%7C573%7C76>

HSBC agrees \$1.9bn US penalties. (2012). Retrieved 21 December 2019, from <https://www.bbc.com/news/business-20673466>

Jablecki, J. (2019). The impact of Basel I capital requirements on bank behavior and the efficacy of monetary policy. *International Journal Of Economic Sciences And Applied Research*, 2(1), 16-35.

Kuzucu, S., & Kuzucu, N. (2017). *Enhancing the Risk Management Functions in Banking: Capital Allocation and Banking Regulations* (Ph.D). Marmara University School of Banking.

Luburić, R. (2017). Strengthening the Three Lines of Defence in Terms of More Efficient Operational Risk Management in Central Banks. *Journal Of Central Banking Theory And Practice*, 6(1), 29-53. doi: 10.1515/jcbtp-2017-0003

Operational risk management in financial services — Financier Worldwide. (2019). Retrieved 23 December 2019, from <https://www.financierworldwide.com/operational-risk-management-in-financial-services#.XgAz3hczbus>

*Operational Risk Management Policy*. (2015). Retrieved from [https://www.bstadb.org/Operational\\_Risk\\_Management\\_policy.pdf](https://www.bstadb.org/Operational_Risk_Management_policy.pdf)

Young, B., & Coleman, R. (2012). *Operational Risk Assessment* (1st ed.). Chichester, England: Wiley.

## Appendix

### Assessment on Operational Risk Management Framework and Principles for the sound management in KBZ Bank Limited

This survey questionnaire is to use only for the research paper and academic purpose “A Study on Operational Risk Management Framework, ORMF of KBZ Limited” To Submit as a partial fulfillment towards the degree of Master of Banking and Finance (MBF) in the Department of Commerce, Yangon University of Economics.

- the square box indicates that question will have more than one answers, please selected all appropriate answers.

- the circle indicates that question will have only one answer please select only one appropriate answer.

#### Guidance for questionnaire ratings

| Rating  | Description  |
|---|--|
| 4 – Principle is fully complied with          | The bank is entirely compliant with the principle, there is evidence to substantiate the assessment, and there are no outstanding non-compliance issues identified (e.g. issues raised through self-assessment or by groups such as internal audit, supervisors or other third parties)                                  |
| 3 – Principle is largely complied with        | The bank is non-compliant in only minor aspects of the principle, the non-compliance is not deemed to be material overall and there may be some minor outstanding non-compliance issues identified (e.g. issues raised through self-assessment or by groups such as internal audit, supervisors or other third parties). |
| 2 – Principle is materially not complied with | The bank is non-compliant in major aspects of the principle, and there may be some outstanding non-compliance issues identified (e.g. issues raised through self-assessment or by groups such as internal audit, supervisors or other third parties).  |
| 1 – Principle has not been implemented        | The bank is entirely non-compliant with the principle and there may be some outstanding non-compliance issues identified (e.g. issues raised through self-assessment or by groups such as internal audit, supervisors or other third parties).   |
| 0 – Not applicable                            | The Principle is not yet applicable to the bank.   |

Thanks you for answering questionnaire.

**I. Respondent’s demographic Information**

1. What is the range of your age?

- 25-30       30-35       35-40       40-50       50-60
- 60 above

2. Your Gender?

- Male                       Female

3. Year in Banking and Finance industry.

- Under Five Year     5-10 Year                       10-20 Year                       above 20 Year

4. Nationality

- Local       Foreign Expatriate

5. Education.

- High School                       Bachelor                       Master Degree
- Ph.D                       Other (Specified) .....

**II. Assessment of the ORMF with Emerging and noteworthy practices.**

| Principles                  | Emerging and noteworthy practices |   | Rating  |
|-----------------------------|-----------------------------------|---|---------|
| 1. Operational risk culture | 1                                 | The code of conduct or ethics policy applies to all the bank’s staff and appointees, including members of the board of directors.   | 1 2 3 4 |
|                             | 2                                 | The code of conduct or ethics policy is regularly reviewed and attested to by employees, is regularly approved by the board of directors, and is publicly available on the bank’s website.  | 1 2 3 4 |
|                             | 3                                 | Establishment and implementation of a whistle-blower programme.   | 1 2 3 4 |
|                             | 4                                 | Establishing operational risk awareness for all employees; more advanced training on the operational risk identification and assessment tools, and processes and policies for individuals with operational risk responsibilities. | 1 2 3 4 |
|                             | 5                                 | Customized and mandatory operational risk training for many roles including business unit operations, supervisory levels, senior management, and the board of directors.  | 1 2 3 4 |

|  |    |   |   |   |   |   |
|--|----|---|---|---|---|---|
| 2. Operational risk management framework | 6  | The ORMF was reviewed and updated to ensure alignment following the publication of the enhanced <i>BCBS Principles for the Sound Management of Operational Risk</i> in June 2011.                               | 1 | 2 | 3 | 4 |
|  | 7  | Referencing the relevant operational risk management policies and procedures.   | 1 | 2 | 3 | 4 |
|  | 8  | Applying the ORMF to all the bank's material operating groups and entities, including subsidiaries, joint ventures and geographic regions.  | 1 | 2 | 3 | 4 |
|  | 9  | The ORMF requires consistent implementation of the bank's operational risk taxonomy across all business lines and operational risk tools.   | 1 | 2 | 3 | 4 |
|  | 10 | Describing the roles and responsibilities of each of the three lines of defense as they relate to the use of the operational risk identification and assessment tools.  | 1 | 2 | 3 | 4 |
|  | 11 | Establishing the mandates, membership, and representation of various operational risk governance committees.  | 1 | 2 | 3 | 4 |
|  | 12 | Establishing a quality assurance programme to ensure that independent challenge and review, as applied by the second line of defense, results in consistent risk and control assessments.                       | 1 | 2 | 3 | 4 |
| 3. Board of directors                    | 13 | Establishing a code of conduct or an ethics policy that sets clear expectations for integrity and ethical values of the highest standard and identifies acceptable business practices and prohibited conflicts. | 1 | 2 | 3 | 4 |
|  | 14 | The board regularly challenges senior management on the design and effectiveness of the bank's operational risk management framework.   | 1 | 2 | 3 | 4 |
|  | 15 | The board reviews and approves an operational risk strategy that sets forth the long-term vision for the programme and the initiatives planned to support implementation.                                       | 1 | 2 | 3 | 4 |
|  | 16 | The board supports the establishment of a formal culture communications strategy,   | 1 | 2 | 3 | 4 |

|  |                      |  |         |
|--|----------------------|--|---------|
|  |                      | whereby senior management communicates the importance of strong risk management practices through a variety of forums such as employee communications and formal training sessions.  |         |
|  | 17                   | The board ensures that internal audit includes the ORMF as a focus within business unit audits, to complement the overall audit of the ORMF.   | 1 2 3 4 |
| 4. Operational risk appetite and tolerance | 18                   | Defining operational risk appetite and tolerance at both a divisional and taxonomy level.  | 1 2 3 4 |
|  | 19                   | Utilizing both quantitative and qualitative components within the bank's operational risk appetite and tolerance statement.  | 1 2 3 4 |
|  | 20                   | Setting limits based on established key risk indicators such as loss metrics, deficiencies, events and residual risk assessments using operational risk identification and assessment tools that have been implemented.                  | 1 2 3 4 |
| 5. Senior Management                       | 21                   | Ensuring that an appropriate level of operational risk training is available at all levels throughout the organization and that the training reflects the seniority, role and responsibility of the individuals for whom it is intended. | 1 2 3 4 |
|  | 22                   | Membership of the operational risk committee consists of the first line of defence, the CORF, and other second line of defence control functions.  | 1 2 3 4 |
|  | 23                   | ORC meetings are convened regularly, minutes are prepared, and action items are tracked to completion.   | 1 2 3 4 |
|  | 24                   | Succession plans for key operational risk individuals have been established to ensure continuation of critical operations and maintenance of expertise.  | 1 2 3 4 |
| 6. Risk identification and assessment      | <b>Audit Finding</b> |  |         |
|  | 25                   | The consideration of internal audit findings as an input to the various operational risk management tools (e.g. RCSAs, scenarios, key risk/performance indicators etc.).   | 1 2 3 4 |

|  |    |   |   |   |   |   |
|--|----|---|---|---|---|---|
|  | 26 | The bank employs a process that considers audit findings in the challenging of business self-assessments.   | 1 | 2 | 3 | 4 |
|  | 27 | The bank's audit function conducts a detailed end-to-end analysis of the operational risk profile assessment process, including assessments of process governance, the detail and quality of reporting, the process by which deficiencies are identified, tracked, and remediated, and generally whether the programme is functioning in a manner consistent with established policies. | 1 | 2 | 3 | 4 |
|  | 28 | The use of internal audit findings to compare management's risk and control assessments with the various operational risk management tools.   | 1 | 2 | 3 | 4 |
|  | 29 | The use of internal audit findings as an input to the regular updating of the bank's operational risk profile.  | 1 | 2 | 3 | 4 |
|  | 30 | Monitoring the number of open and overdue internal audit issues as a key indicator.   | 1 | 2 | 3 | 4 |
| <b>Key risk and performance measures</b> |    |   |   |   |   |   |
|  | 31 | Establishing key risk and performance indicators at multiple levels throughout the bank, including at the group-wide level, the divisional level, and the individual business-line level.   | 1 | 2 | 3 | 4 |
|  | 32 | KRIs, KPIs and escalation triggers are subject to regular review and enhancement.   | 1 | 2 | 3 | 4 |
|  | 33 | The first line of defense creates action plans for metrics that breach their respective thresholds.   | 1 | 2 | 3 | 4 |
|  | 34 | The second line of defense independently challenges the selection of indicators and thresholds, as well as the proposed action plans.   | 1 | 2 | 3 | 4 |
| 7. Change management                     | 35 | Alignment of risk and control assessments, within the change management process, with the bank's operational risk taxonomy to allow for integration and aggregation of results within the bank's overall risk profile.  | 1 | 2 | 3 | 4 |
|  | 36 | A formal project governance programme   | 1 | 2 | 3 | 4 |

|                             |    |   |         |
|-----------------------------|----|---|---------|
|                             |    | that involves several approvals or “gates” through the life of a new product or initiative.   |         |
|                             | 37 | The bank has defined objective criteria and procedures to identify new activities, products, technology systems, or business with geographically distant markets.   | 1 2 3 4 |
|                             | 38 | The bank has clearly allocated roles and responsibilities for both the first and second lines of defense in order to assess the risk exposure relating to change initiatives in line with the accepted risk appetite of the bank.       | 1 2 3 4 |
|                             | 39 | The identification of controls or actions required, either pre- or post-implementation, which are closely monitored by the second line of defense to ensure remediation.  | 1 2 3 4 |
|                             | 40 | Establishing oversight committees to monitor the implementation of new product and new initiative frameworks as well as to review and approve specific business cases.  | 1 2 3 4 |
| 8. Monitoring and reporting | 41 | Production of operational risk reports on a regular (ie quarterly or monthly) basis that are distributed to senior management and/or the board.   | 1 2 3 4 |
|                             | 42 | Operational risk reports include an operational risk profile for the bank, including the inherent and residual risk levels for its taxonomy.  | 1 2 3 4 |
|                             | 43 | Operational risk reports include details of key and emerging operational risks.   | 1 2 3 4 |
|                             | 44 | Operational risk reports include an effective balance of qualitative and quantitative information.  | 1 2 3 4 |
|                             | 45 | Operational risk reporting includes an appropriate balance of information related to changes in both the business environment and operational risk data (loss data, KRIs), and includes an update of key operational risk action items. | 1 2 3 4 |
| 9. Control and mitigation   | 46 | The use of metrics for comparison of returns (by business unit, by product) with the budget (projected outcome), fluctuation  | 1 2 3 4 |

|  |    |   |         |
|--|----|---|---------|
|  |    | of daily P&L (specifically in trading/financing business unit) and specific transactions with an irregular return ratio.  |         |
|  | 47 | Clear assignment of both first and second line of defence responsibilities as they relate to the assessment and control of outsourcing risk.  | 1 2 3 4 |
|  | 48 | The use of operational risk management tools (ie RCSAs, KRIs etc) to help manage outsourcing risks.   | 1 2 3 4 |
|  | 49 | The development of contingency plans and alternative/backup arrangements for material outsourcing arrangements.   | 1 2 3 4 |
| 10.<br>Resiliency<br>and<br>continuity | 50 | Well established process to identify and categorize the criticality of business functions, vulnerabilities and disruptive impact, and the establishment of thresholds for activation of business continuity plans (e.g. maximum tolerable outage etc.). | 1 2 3 4 |
|  | 51 | The integration of disruptive scenario analysis into other risk management tools and processes (e.g. KRIs, Pillar II etc.).   | 1 2 3 4 |
|  | 52 | The provision of customized business continuity training to staff, according to their specific roles, as well as regular review of the training to ensure its applicability.  | 1 2 3 4 |

**Thank you, have a good day!**