

## TOWARDS DEVELOPING GUIDING PRINCIPLES FOR MANAGING OPERATIONAL RISK APPETITE

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### Abstract

Within the context of operational risk management, the understanding of the term operational risk appetite is still vague and not fully implemented by organisations to take advantage of the potential benefits thereof. This study analyses various definitions which serve as a platform for formulating guiding principles in order to manage operational risk appetite. To confirm the applicability and importance of these guidelines they were empirically tested in the banking industry in South Africa. The research indicates that the proposed guiding principles for managing operational risk are valid and that their adoption could lead to potential benefits for a banking organisation. While it is recommended that banks adopt these principles to experience the advantages of managing its operational risk appetite, other corporate organisations may also encounter similar benefits.

**Keywords:** Risk appetite, Risk tolerance, Operational risk, Key risk indicators, Risk and control self-assessments, Risk financing, Risk control, Risk identification, Risk evaluation, Risk monitoring, Risk capacity, Risk acceptance

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### 1. Introduction

The concept of *risk appetite* is a phenomenon of the modern risk management approach. Since 2000, much has been written on the subject of risk appetite by various role players, for example the Basel Committee on Banking Supervision or BCBS (2006), Nocco and Stultz (2006), Chapman (2008) and Segal (2006). A variety of different views and opinions have been formed, and terms such as *risk capacity*, *acceptable risk* and *risk tolerance* have been used. The variety of terminology has resulted in some confusion on the exact meaning of risk appetite. In order to eliminate some of the confusion, it is necessary to converge certain of these views and opinions.

An organisation's risk management policy should stipulate its approach to and its appetite for risk. However, this is not as straightforward as it sounds. One reason, for example, is the lack of a clear and acceptable definition of risk appetite. According to Carey (2005), risk appetite is a term that is frequently used throughout the risk management community, but it seems that there is a lack of useful information on its application outside of financial risk areas or other risks that can easily be translated into financial terms.

Because there are various primary risks an organisation could encounter, such as credit risk, market risk, liquidity risk and operational risk, and

because each risk should be managed by means of its own management methodologies, this article will concentrate on operational risk. The focus will therefore be to clarify the concept of risk appetite as it refers to operational risk only, and to illustrate that managing the operational risk appetite is an opportunity rather than a threat.

The primary purpose of the study on which this article is based, was to evaluate various definitions of risk appetite and to identify specific terms which could assist in formulating guiding principles for managing operational risk appetite. However, before assessing the various definitions, it is important to demarcate the subject of operational risk management as a management process. After formulating the guiding principles, it is imperative to discuss the role and responsibilities of the board of directors as it relates to the management of risk appetite. According to Mongiardino and Geny (2007), in the area of risk governance, a clear description of the role of the board of directors and its committees in setting the risk appetite for the organisation is required.

There are a variety of benefits which an organisation can experience by following the guiding principles for managing its operational risk appetite which will be identified in the article.

A report on an empirical study, based on the banking industry in South Africa, will conclude this article. A survey to determine the status of the understanding and implementation of operational risk

as a separate risk management discipline was conducted. The potential use of the formulated guiding principles and benefits an organisation could experience when implementing these guidelines will be assessed.

The following section reviews the relevant literature on operational risk and risk appetite. This will be followed by the empirical study.

## 2. Operational risk

In order to be able to lead a discussion on operational risk appetite, it is necessary to understand the concept of operational risk. Therefore, this section deals with a discussion on the concept of operational risk and the components of a typical management process. There are various tools available for managing operational risk so as to determine the operational risk appetite. These tools are briefly referred to in this section. Furthermore, the role of top management forms an important part of operational risk management, which is explained in more detail, especially the way it relates to operational risk appetite.

Operational risk is a concept that has been around for many years; for example, during the wars of the Roman Empire risks were identified and addressed in order to protect the soldiers. When the soldiers stormed the castles, the defending force poured boiling tar on the attackers. This was anticipated and the soldiers protected themselves with wooden shields. This is a typical example of managing risk exposure.

However, in 1995 operational risk became a focus point for many businesses, with the banking industry leading. This was due to one individual (Nick Leeson) who was responsible for the downfall of Barings Bank, one of the UK's largest and oldest banks. Leeson was a rogue trader who singlehandedly caused the bankruptcy of Barings Bank due to inadequate operational risk control measures, such as segregation of duties, effective risk reporting and various other reasons (Young, 2006). This incident led to various institutions to focus on risk management, such as the Basel Committee on Banking Supervision, which subsequently identified principles for the management of operational risk. These principles aim to ensure that one significant risk incident will not cause a major bank to go bankrupt and negatively influence a country's economy.

In addition, Crawford and Hoppe (2005) state that managing operational risk is not new, and for many years organisations in general, and some industries in particular (banking, manufacturing, logistics etc.) have been aware of the hazards and uncertainties arising from IT infrastructure, human resources, fraud, business disruption, legal liability and many similar issues. However, the growing number of business failures, increasing complexity of business and mounting regulatory pressure are

renewing visibility of these risks under the banner of operational risk. Other incidents which also attracted the attention of risk experts were the 9/11 World Trade Centre terrorist attack, the London Tube attacks and the tsunami in Thailand. Before the recent increased focus on the management of operational risk it was defined as *all the risk exposures not covered by credit and market risk* (Young, 2006). This definition became unacceptable, especially if one takes into account that, to manage something, one should be able to measure it. Therefore, in 2003 the Basel Committee on Banking Supervision defined operational risk as *the risk of losses due to inadequate or failed internal processes, systems or people, or because of external events*. This definition excludes strategic and reputational risk, but includes legal risk.

The banking industry was one of the first industries to adopt a more focused approach to operational risk management in consequence of the Basel Committee on Banking Supervision issuing guidelines on how to measure operational risk in terms of expected and unexpected losses. The BSBS suggested that banks should allocate a reserve capital to these unexpected catastrophic risk events in order to ensure that they could survive even in the event of a catastrophic risk incident. However, for this to realise, the banks had to find methods to determine the value of potential losses.

To manage operational risk requires a structured risk management process. A typical risk management process can consist of the following components: risk identification, risk evaluation, risk control, risk monitoring and risk financing. This process is illustrated in Figure 1.

The operational risk management process, outlined in Figure 1, aims to identify and measure the risk exposures associated with operational risk. It is therefore imperative that the operational risk management factors be quantified and/or qualified in order to ensure that the associated risk exposures are managed effectively.

When analysing the descriptions of the risk management factors, it can be concluded that the main theme running through each of these factors relates to losses (loss of staff, funds and/or business). As such, the value of the actual losses is usually based on actual losses linked to financial values. Thus, the only way to quantify operational risk is by means of actual financial losses. A fundamental problem in this regard is the fact that the risk event has already occurred and has resulted in physical financial loss for the organisation, and managing the risk is therefore based on historic financial loss data. To manage future risk exposures, the use of historic loss data is not adequate, as it does not consider the future risk exposures which could have a major influence on the business objectives. However, the risk management process provides the opportunity to determine the overall risk exposures for the organisation.

**Figure 1.** Operational risk management process

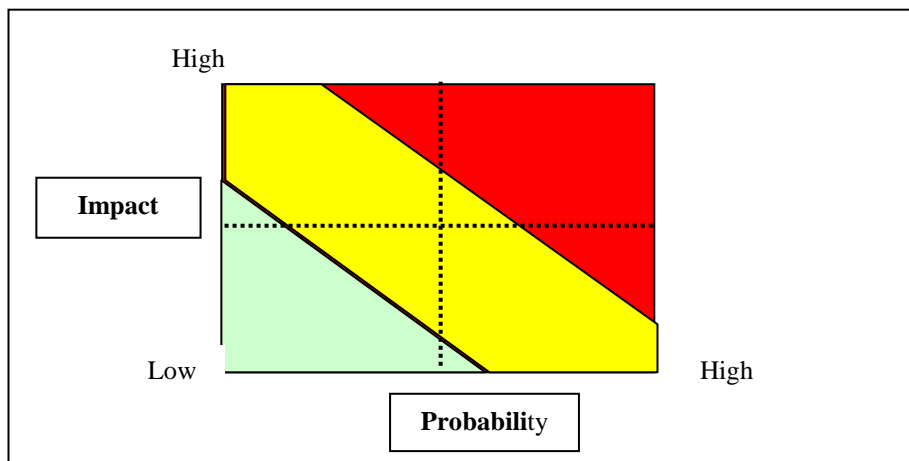


Source: Adapted from Young (2006)

After the evaluation process, the residual risk can be mapped to a risk map which could be used to

assist management in making decisions. An example of such a risk map is illustrated in Figure 2.

**Figure 2.** Risk map



Source: Adapted from Young (2006)

When a risk falls in the Low Impact/Low Probability quadrant, it will be tolerated and accepted by management as part of the daily business. In the Low Impact/High Probability quadrant, management will treat these risks by means of additional control measures. In the quadrant with a High Impact/Low Probability, management will decide to share the risk with a third party by transferring a certain amount of the potential risk. This can be achieved by third party insurance. In the last quadrant with a High Impact/High Probability, management would preferably terminate the business or process.

After identifying and evaluating the risks, they must be controlled. Therefore, risk control concerns the application of mitigating techniques to prevent or reduce the probability of losses, and it aims to eliminate or minimise the potential effect of the identified risk exposures.

Risk financing selects the most efficient method for providing (financially) for the neutralisation of risks. Thus, risk financing refers to the provision of

sufficient funds to manage the risk and to absorb losses as they occur. This can be accomplished by, for example, a variety of internal and external financial resources, including insurance. It is, however, critical that the cost of risk management does not exceed the benefits of the risk management system.

Risk management is regarded as a dynamic process, because the risk exposures will change as the organisation's business develops. It is therefore imperative that the risk management process must be monitored on a continuous basis to ensure that new risks are identified and proactively addressed. As such, risk monitoring is a continuous management component of the risk management process, and aims to ensure the effectiveness of the risk management system which the organisation is using.

As mentioned above, a challenge for operational risk practitioners is the quantification of the risks. An objective way to quantify operational risk is to use loss history. However, this is not the answer for future potential risks/losses, as it only relates to loss

incidents which have already taken place and does not quantify future risk exposures. As such, various methods have been identified to measure operational risk of which the following are the most popular:

- historical/actual losses;
  - key risk indicators (KRIs);
  - risk and control self-assessments (RCSAs);
- and
- scenarios.

Historical loss data provides information on actual risk events which have occurred. The benefit of this information is that value and/or volume can be determined in order to quantify the actual risk. According to the Committee of Sponsoring Organisations (COSO) (2004), quantitative techniques are dependent on the quality of the supporting data and assumptions. These are most relevant for exposures that have a known history and frequency of variability, and which allow reliable forecasting. Benchmarking, for example, is a useful assessment technique which focuses on specific events and compares results using common metrics to identify control measures or improvements. Some companies use benchmarking to assess the impact and likelihood of potential events across an industry. However, this data can only predict future losses and is not accurate.

KRIs are risks that have been identified and which are constantly being monitored against

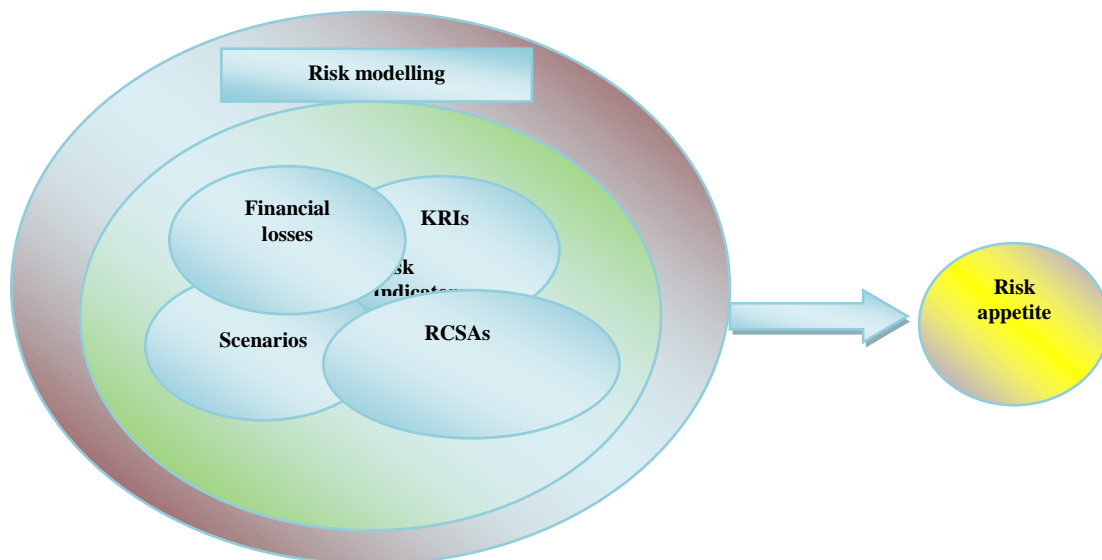
benchmarks in order to proactively prevent a risk becoming a major problem to the business. These indicators will alert the organisation to changes that may be indicative of risk concerns. This method of risk management is also a quantitative method and provides information regarding the current status of the identified risk. It can thus serve as an early warning mechanism for management and could ensure that proactive measures are taken to address the risk situation.

RCSAs aim to assess an organisation's risk exposures and activities against existing control measures to determine the residual risk (net risk after taking control measures into account). This method is a qualitative approach which is useful to predict the future risks for the organisation, even though it is also a subjective method.

The scenario approach aims to construct hypothetical events or scenarios which could negatively influence the business. These scenarios are then subjected to a risk analysis to identify the possible risks which must be managed proactively. This method is also aimed at future risks for management purposes.

The primary objective of the above operational risk management tools is to contribute to the determining of the risk appetite. This is illustrated in Figure 3.

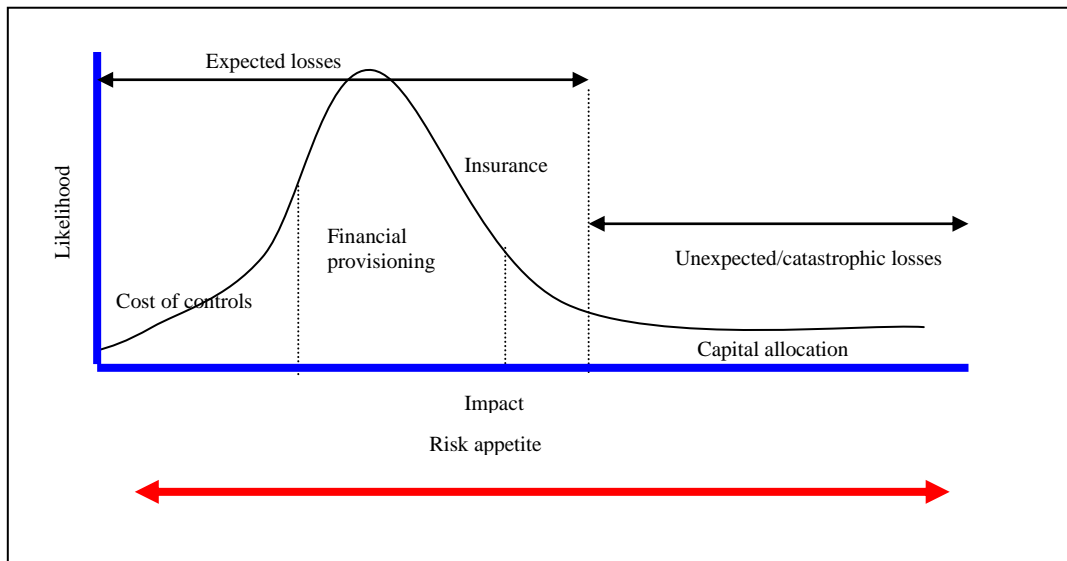
**Figure 3.** Contribution of risk management tools to risk appetite



(Author's conceptualisation)

Once the qualitative and quantitative data are determined by the risk management tools, risk modelling can be used to calculate the operational value at risk (OpVaR). Risk modelling makes use of stochastic models which focus on an estimation of the

risk of specific processes, using, for example, loss data to determine loss distributions that could assist in identifying expected and unexpected losses. A typical example of such a loss distribution curve is illustrated in Figure 4.

**Figure 4.** Illustration of loss distribution curve

Sources: Adapted from Young (2006) and Institute of Operational Risk (2009)

The loss distribution curve can be used to indicate at which levels of probability and impact the potential losses should be controlled, insured by a third party and capital allocated. This forms the basis for management decisions in terms of reducing or preventing financial losses. Once the loss distribution curve has been divided into the three main categories (control, insurance and capital), it can serve as an input to calculate the operational risk appetite. However, there is still a lot of uncertainty surrounding an exact definition for operational risk appetite which will be addressed in the next section. It is thus firstly necessary to briefly discuss the role and responsibilities of top management (board of directors) as such role and responsibilities relate to the managing of the operational risk appetite.

According to Mongiardino and Geny (2007), in the area of risk governance, a clear description of the role of the board of directors and its committees in setting the risk appetite for the organisation is required. Effective risk management is one of the main responsibilities of the board of directors and they have an important oversight function with regard to risk management.

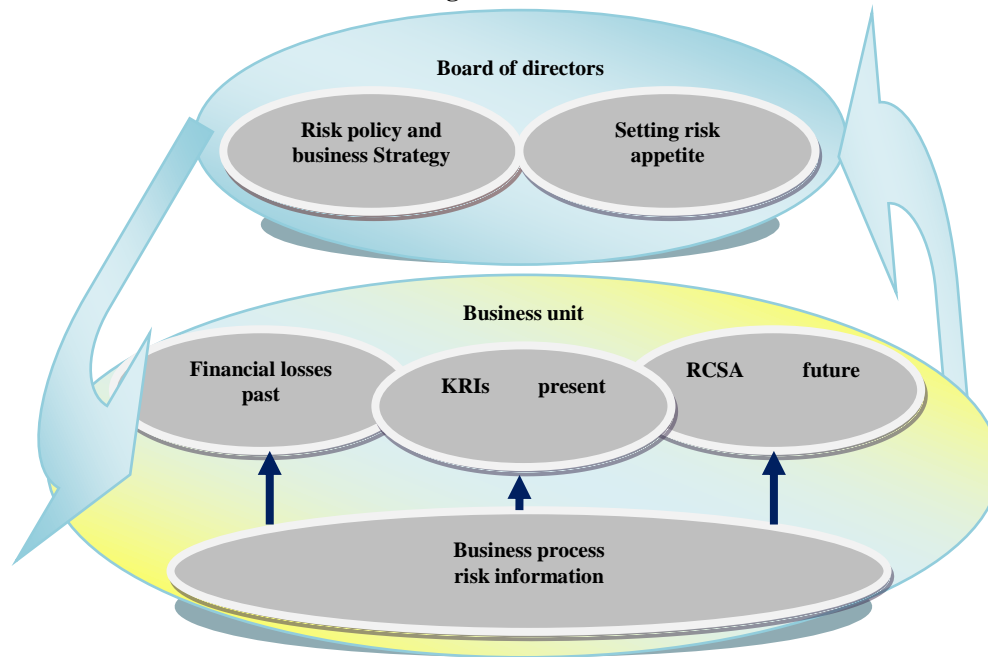
According to COSO (2004), the board should:

- know the extent to which management has established effective risk management in the organisation;
- be aware of the organisation's risk appetite and concur with it;

- review the organisation's portfolio view of risk and consider it against the risk appetite; and
- be apprised of the most significant risks and whether management is responding appropriately.

The board of directors has a major role to fulfil in defining what it expects from senior management at all levels in the organisation regarding risk management. According to Swenson (2003), the board of directors and senior management must be actively involved in the oversight of the operational risk management process. The board also plays a role in setting the organisation's strategy, high-level objectives and the corresponding high-level allocation of resources. These factors can be regarded as the basic requirements to enable management to manage the potential risks involved.

It is clear that the board of directors is ultimately accountable for the effective risk management of the organisation. However, in the context of good corporate governance, it is imperative that, when setting the risk appetite for the organisation, sufficient information be available. Therefore, from a top/down perspective, it is important that the board of directors initiates the risk appetite process by providing the policies and procedures on managing the risks aligned with the strategy of the organisation. From a bottom/up approach the relevant information must be provided to the board in order to set the operational risk appetite. This information evolves from the primary risk management tools. Figure 5 illustrates this concept.

**Figure 5.** Flow of risk information

(Author's own conceptualisation)

After receiving the risk information, the board must decide on the risk appetite in terms of which financial losses the organisation is prepared to accept as part of the business processes; which losses must form part of financial provisions (budget) which losses must be insured by a third party; and whether any capital must be allocated to potential catastrophic operational risk incidents (refer to Figure 4).

To ensure that the board sets a realistic risk appetite, it is imperative that accurate risk information is generated and reported. Therefore, one of the most important aspects of effective risk management is reporting which is a possible topic for further research. The next section addresses the concept of operational risk appetite in terms of certain concepts which are used to formulate guiding principles for the management of the risk appetite.

### 3. Operational risk appetite

There are currently a number of definitions for risk appetite which all approach the concept from various angles and sometimes include confusing terms that add to the current misconception of the meaning of the term, not even considering the use thereof. Examples of these definitions are:

- "... the broad-based amount of risk a company or other entity is willing to accept in pursuit of its mission or vision" (Basel Committee on Banking Supervision, 2006)
- "... the probability of financial distress that maximises shareholder wealth" (Nocco & Stultz, 2006)
- "Risk appetite is the degree of risk, on a broad-based level, that a business is

willing to accept in pursuit of its objectives. Management considers the business's risk appetite first in evaluating strategic alternatives, then in setting boundaries for downside risk" (Chapman, 2008)

- "... the amount of risk that an organisation is prepared to accept, tolerate, or be exposed to at any point in time" (HM Treasury, 2006)

- "... the amount of risk to which the organisation is prepared to be exposed before it judges that action is necessary" (HM Treasury, 2001)

- "... the level of Enterprise Shock Resistance with which the enterprise risk management committee is comfortable" (Segal, 2006)

- "Risk appetite can be defined as the amount of risk a business is prepared to tolerate at any point in time. A business's tolerance will be a reflection of its capacity to absorb risk" (Chapman, 2008)

- "An organisation's risk appetite is the maximum amount of risk that it can assume. This is an important concept because risk appetite must be set at a level within the capacity limit. Capacity needs to be considered before appetite" (Barfield, 2007)

- "... the willingness of investors to bear risk" (Gai & Vause, 2004)

Although it can be argued that the above definitions of risk appetite are all valid, it is clear that they all differ from one another in one way or another, and that the different definitions relate to different risk types. According to Carey (2005), the high level

of diversity that currently exists regarding the definition of risk appetite is arguably causing confusion within many organisations on how to define, express and use the concept.

Most of these definitions provide a broad view of risk appetite and relate to various risk types, such as operational risk, investment risk and financial risk. Once again, from these various definitions on risk appetite, it is clear that the definitions could cause confusion. As a result of the various risk types involved, it can be concluded that to define risk appetite, it should be done separately for each risk type. A one-fits-all definition could add to the current confusion, and therefore the research on which this

article is based, has concentrated on understanding risk appetite as it relates to operational risk. However, the aim of this article is not to present the ultimate definition for operational risk appetite, but to analyse the abovementioned definitions to determine the different terms and concepts used to define risk appetite. These concepts could serve as a foundation to formulate principles for managing risk appetite which, in turn, could be used as a guideline for organisations to determine risk appetite.

An analysis of the abovementioned definitions points towards the key concepts set out in Table 1. These concepts have been used to formulate guiding principles which are also included in Table 1.

**Table 1.** Key concepts and guiding principles relevant to operational risk appetite

Relevant concepts	Guiding principles
<ul style="list-style-type: none"> <li>• Acceptance of risk</li> <li>• Amount of risk</li> <li>• Degree of risk</li> </ul>	The process to determine the risk appetite should include information regarding the <b>amount</b> of financial losses due to operational risk exposures which management is prepared to <b>accept</b> as a loss and as part of the operational and business process.
<ul style="list-style-type: none"> <li>• Capacity to absorb risk</li> <li>• Risk capacity</li> </ul>	When considering risk appetite, it should be within the <b>capacity</b> limits of the organisation in terms of being able to afford premiums for insurance and to <b>absorb</b> financial losses without impairing the sustainability of the organisation.
<ul style="list-style-type: none"> <li>• Tolerance for risk</li> <li>• Risk exposure at a point in time</li> <li>• Risk assumption</li> </ul>	Risk appetite should include the amount of financial losses which an organisation is prepared to <b>tolerate</b> as a loss notwithstanding control measures. The <b>cost</b> of these control measures must not exceed the potential benefits for the organisation at any <b>given point in time</b> .
<ul style="list-style-type: none"> <li>• Risk-bearing</li> </ul>	All <b>risk-bearing</b> activities should be considered during the process to determine the risk appetite of the organisation.
<ul style="list-style-type: none"> <li>• Action required</li> </ul>	Risk appetite should indicate sufficient <b>action required</b> to effectively manage the risk exposures in terms of the risk map.

These principles could be considered by management when they manage the operational risk appetite. The next section deals with potential benefits when an organisation implements the abovementioned guiding principles for managing operational risk appetite.

#### 4. Benefits of a realistic risk appetite

According to Marsh (2009), risk appetite should be used as a framework to identify when organisations may be accepting more risk than top management have deemed comfortable or alternatively when insufficient risk is being taken to meet stakeholder expectations. A realistic risk appetite set by the board of directors which is based on reliable and accurate risk information will ensure meaningful business decisions. These risk-based decisions should prevent any decisions that will lead to financial losses outside the operational risk appetite. This means that, should a business decision result in a financial loss, it would be covered by the approved operational risk appetite and therefore protects the organisation and ensures its sustainability. Further examples of benefits resulting from a realistic operational risk appetite are:

- Assist strategic planning by aligning strategic objectives and operational activities. This activity will ensure that there are strategic alternatives that could be taken to avoid the risk appetite being breached or to maximise the upside potential (Marsh, 2009).
- Ensure a balanced approach between being risk seeking and risk averse (Institute of Operational Risk, 2009).
- Ensure a better view of risk expenditure which will ensure that the cost of risk does not exceed the benefits (Institute of Operational Risk, 2009). It will therefore ensure that the potential rewards associated with the course of action do not breach the risk appetite levels (Marsh, 2009).
- Enhance a culture of risk awareness throughout the organisation.
- Ensure sound decision-making by top management.
- Enhance corporate governance of the organisation.
- Enhance an improved reputation of the organisation.

- Ensure steps to be taken to reduce or mitigate the risk to bring it within the defined risk appetite (Marsh, 2009).
- Ensure realistic premiums for third party insurance for loss incidents.
- Ensure the involvement of all role players for providing risk information and making sound decisions.

Considering these benefits, it can be concluded that an organisation would definitely benefit from a structured risk management process which will ensure a realistic risk appetite.

## 5. Research methodology

In order to determine the current knowledge base of employees of organisations as well as the level of implementation and use of the concept of operational risk appetite, it was decided to use the banking industry in South Africa as the target population for a survey. The reason for using banks in South Africa is based on the fact that the banking industry can be regarded as one of the leading industries when it comes to risk management. This fact can be ascribed to the regulatory enforcement by the SA Reserve Bank of the Basel guidelines on risk management to allocate a capital charge to risk exposures. Therefore, it was decided to gather the information by means of a closed questionnaire which was distributed electronically as well as physically to the primary banks in South Africa. The target population was identified across a variety of roles within the bank; for example, members of the board of directors (top management), risk managers, business managers and internal auditors. The main reason for distributing the questionnaire to the aforementioned was that the determining and managing of the risk appetite required the involvement of these role players.

The aim of the questionnaire was, firstly, to determine the current status of implementation of operational risk as a management discipline by the main banks in South Africa. Secondly, the intention was to establish whether the aforementioned guiding principles for managing operational risk appetite could be useful to an organisation when implemented and when ranking these principles in order of priority.

The questionnaire requested respondents to indicate on a 5-point Likert scale their views and experience regarding specific questions on the status of the implementation of operational risk. The

response was analysed in terms of descriptive statistics according to the following scale:

1. To a full degree
2. To a degree
3. To a moderate degree
4. To a lesser degree
5. To no degree

Respondents were also requested to rank, in order of importance, the identified guiding principles for managing operational risk appetite as well as the potential benefits.

## 6. Research results

The questionnaires were randomly distributed to employees of the four major banks in South Africa. A total of 50 questionnaires were dispatched, and 33 were returned on the due date which represents a 66% response.

Feedback was received from one top manager, 3 internal auditors, 17 business managers and 12 risk managers.

The respondents mostly consisted of risk managers and business managers who represent the important role players involved with managing a bank's risks. Therefore, the response can be accepted as a reasonable reflection of the status of risk management in the banking industry in South Africa.

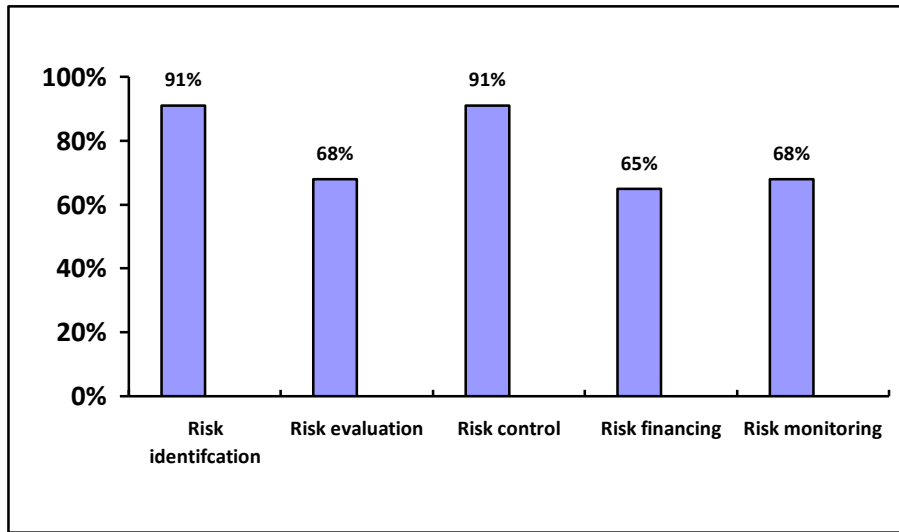
Regarding the current understanding and implementation of operational risk, 85% of the respondents have indicated that operational risk management is being managed to a full degree as a separate risk management discipline, and that a specific definition for operational risk has been accepted by the organisation. Of the respondents, 77% have indicated that a policy on operational risk has been approved to a full degree by top management, while 70% have indicated that the policy has been distributed to a full degree throughout the organisation.

Based on this response, it can be concluded that operational risk has been recognised as an independent risk management discipline, although there may be a need to inform all employees on the approved policy and to actively distribute it throughout the organisation.

Regarding the status of the implementation of an operational risk management process, the respondents have indicated that the components of a typical process are being implemented. Refer to Figure 6 below.



**Figure 6.** Status of the implementation of the operational risk management components



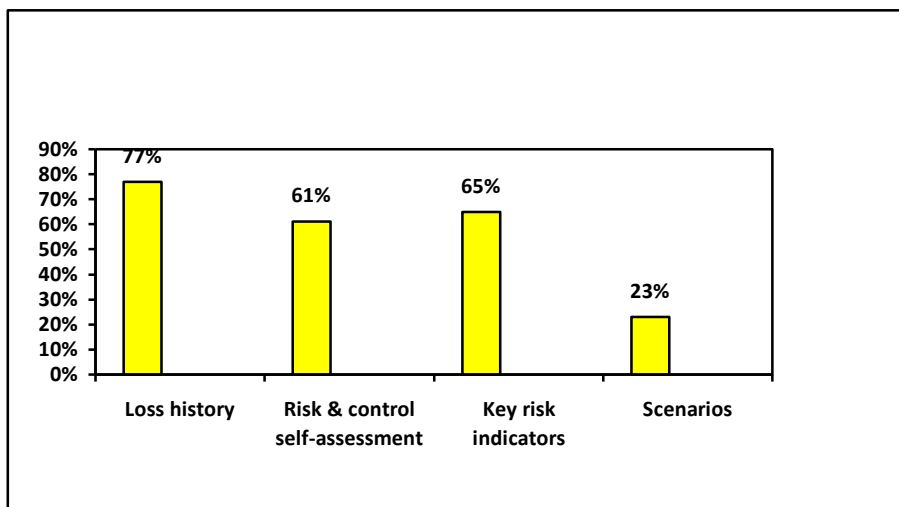
It can be concluded that risk identification and risk control are the two components currently receiving most attention (91% of the respondents have indicated that these components are being implemented to a full degree) as part of the risk management process. Risk financing is the component which is being implemented to a lesser degree (65% of the components have indicated that this component is being implemented to a full degree, while 26% have indicated that it is used to a moderate or lesser degree). As the operational risk appetite forms an integral part of the risk financing component of the risk management process, it can be concluded that the application of the risk appetite process still requires some attention to ensure the realisation of the benefits of such a process.

In terms of the implementation and use of the operational risk management tools, 91% of the

respondents have indicated that risk and control self-assessments are being implemented to a full degree with 100% indicating that loss history is being used, while 83% and 29% have indicated that key risk indicators and scenarios are being used to a full degree respectively. It can, therefore, be concluded that the losses management and risk, and control self-assessments are the two most popular risk management tools, while the use of scenarios to manage risks is still being developed.

When comparing the use of the risk management tools as an input to determine the operational risk appetite, it can be deduced that this is still in the development phase (refer to Figure 7) with the loss history as the most popular risk management tool, followed by risk and control self-assessments.

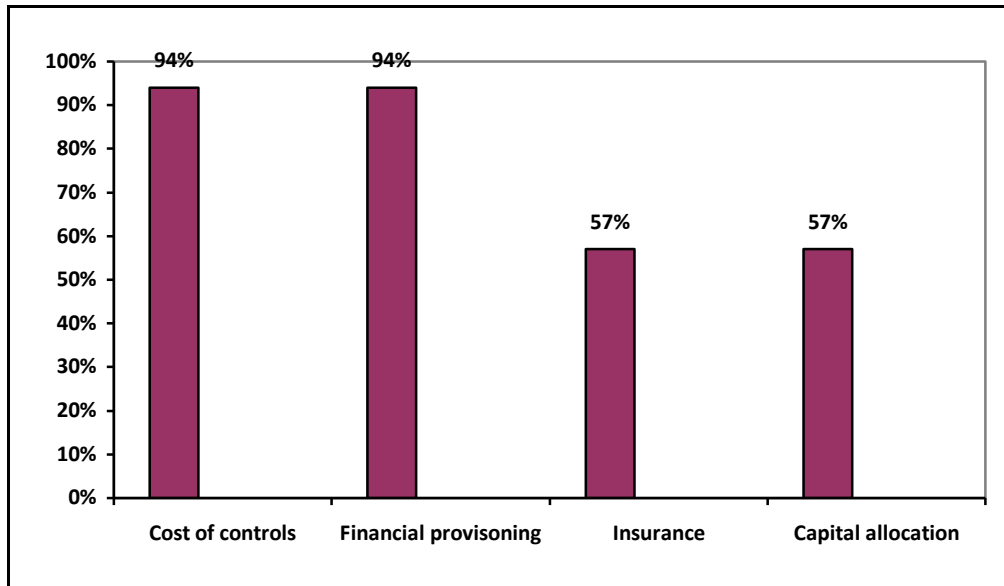
**Figure 7.** Status of the implementation of the operational risk management tools as an input to determine the operational risk appetite



Of the respondents, 11 have indicated that risk modelling is used to a degree, while 14 have indicated that it is not used. As such, it can be deduced that banks are mostly still in a development phase regarding risk modelling for operational risk. Similarly, it can be concluded that the use of a loss distribution curve is also still being considered or developed to determine the risk appetite.

The implementation of the various components which can be used to quantify the operational risk appetite is illustrated in Figure 8.

**Figure 8.** Components to quantify operational risk appetite



Of the respondents, 94% have indicated that the cost of controls and the financial provisioning are being used to a full degree as part of the operational risk appetite, while 57% have indicated that insurance and capital allocations are being used to a full degree. As such, it can be concluded that the components to quantify the operational risk appetite can be regarded

as the cost of controls, finance provisioning, insurance and capital allocation.

The respondents indicated prioritising the guiding principles for managing operational risk appetite in order from most important to least important (Refer to Table 2).

**Table 2.** Priority rating of the guiding principles to manage operational risk appetite

Principle	Percentage	Rating
All risk-bearing activities should be considered during the process to determine the risk appetite of the organisation.	40.9%	1
The risk appetite should include the amount of financial losses which an organisation is prepared to tolerate as a loss, notwithstanding control measures. The cost of these control measures must not exceed the potential benefits for the organisation at any given time.	34.8%	2
When considering the risk appetite it should be within the capacity limits of the organisation in terms of being able to afford premiums for insurance and to absorb financial losses without impairing the sustainability of the organisation.	31.8%	3
The process to determine the risk appetite should include information regarding the amount of financial losses due to operational risk exposures which management is prepared to accept as a loss, and as part of the operational and business process.	16.7%	4
The risk appetite should indicate sufficient action required to effectively manage the risk exposures in terms of the risk map.	12.1%	5

The most important guiding principle for managing operational risk appetite was rated as the first priority (40.9%), while the lowest priority was

rated 12.1%. There is no principle that has not been rated which can lead to a conclusion that all the

principles can be accepted as guiding principles for managing operational risk appetite.

Table 3 shows the rating of the potential benefits for implementing the guiding principles when

managing the operational risk appetite. Similar to the rating of the principles, all the benefits have been rated with the highest rating at 37.8% and the lowest at 3.0%.

**Table 3.** Priority rating of the potential benefits as guiding principles for managing the operational risk appetite

Principle	Percentage	Rating
Assist strategic planning by aligning strategic objectives and operational activities.	37.8%	1
Ensure a balanced approach between being risk seeking and risk averse.	31.8%	2
Ensure a better view of risk expenditure which will ensure that the cost of risk does not exceed the benefits.	28.7%	3
Ensure sound decision-making by top management.	22.7%	4
Enhance corporate governance of the organisation.	16.7%	5
Ensure the involvement of all role players by providing risk information and making sound decisions.	15.2%	6
Ensure realistic premiums for third party insurance for loss incidents.	13.6%	7
Enhance an improved reputation of the organisation.	4.5%	8
Enhance a culture of risk awareness throughout the organisation.	3.0%	9

It can, therefore be concluded that the proposed guidelines would assist organisations during the management of the operational risk appetite.

According to the response it is clear that the identified advantages for implementing the guiding principles for the management of operational risk appetite would be to the benefit of the organisation.

## 7. Conclusions

This study provided some insights into the implementation of operational risk management. It is evident that operational risk management is fast becoming a management discipline in its own right. However, to be able to manage it effectively, it is imperative to demarcate the factors of operational risk, and to quantify and qualify these by means of an embedded operational risk management process. This process must provide sufficient risk management information to top management in terms of the past financial losses, and current and future risks. This risk information, generated by the risk management tools, forms the basis for the board of directors to set a realistic operational risk appetite which, in turn, will ensure sound financial decisions in terms of the cost of risk, financial provisions, third party insurance and capital allocation.

The study analysed various definitions of risk appetite from which were identified specific terms that could assist in formulating guiding principles for managing operational risk appetite.

Several benefits of implementing the guiding principles to manage operational risk appetite were also proposed.

Five guiding principles for managing operational risk appetite were identified with nine potential benefits, should the principles be implemented. The principles as well as the benefits were put to a sample of 50 respondents from the banking industry. The

respondents were required to rate the extent to which each of the principles and benefits applied to their understanding.

The conclusion that can be drawn from the findings is that the principles and benefits were all found to be applicable. The principle which has been rated most important is that all risk-bearing activities should be considered during the process to determine the risk appetite of the organisation. The benefit rated with the highest ranking envisages that the management of the operational risk appetite can assist in strategic planning by aligning strategic objectives and operational activities.

Although the findings of the study are related to only the banking industry, it is quite possible that the results might be the same for any other organisations because of the generic nature of the identified guiding principles. This possibility could be tested in subsequent research.

It is finally recommended that organisations, particularly banking organisations, seriously consider the adoption of the guiding principles for managing their operational risk appetite which could lead to the stated benefits from improved corporate governance to sound decision-making.

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