

**DISCLOSING RISK MANAGEMENT POLICIES IN FINANCIAL  
STATEMENTS**

by

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HIERDIE VERHANDELING WORD OPGEDRA  
IN LIEFDEVOLLE HERINNERING AAN MY DIERBARE MOEDER  
HETTIE BOUWER  
WIE SE ONDERSTEUNING EN LIEFDE DEUR AL DIE JARE,  
EK NOOIT SAL VERGEET NIE

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## **ABSTRACT**

The collapse of some prominent worldwide companies in recent years could partially be attributed to the lack of good corporate governance principles in these companies, with specific reference to risk management. The King Code on Corporate Practices and Conduct as published by the King Committee in 2002, referred to as King II, deals extensively with the aspect of risk management in companies and the recommendations included therein, are very clear about the responsibility, application, implementation and reporting in respect of risk management in companies.

The primary objective of this research is to investigate the different sources of risks companies are exposed to, as well as the measures and methods available to manage these risks, and to evaluate the annual reports of listed companies so as to determine the level of implementation of risk management practices by way of an assessment of their corporate governance reports.

The research revealed that there are mainly three sources of risk that companies are exposed to, i.e. strategic, operational and financial risks. From the research it was evident that most companies spend most of their efforts and resources, in respect of risk management, in the area of financial risk management, whilst strategic risk management receives the least attention.

To ensure the implementation of an effective risk management system, it is proposed that companies first do a strategic risk audit in order to determine what their strategic risks are, which include risk in the longer term, whereafter a risk management framework should be developed in order to identify, measure, accept or mitigate, review and monitor risks applicable to the specific company on an ongoing basis.

## OPSOMMING

Die ineenstorting van verskeie wereldwye prominente maatskappye in die laaste paar jare kan gedeeltelik toegeskryf word aan die gebrek aan effektiewe korporatiewe bestuur, met spesifieke verwysing na risikobestuur in hierdie maatskappye. Die King Kode vir Korporatiewe Praktyke en Gedrag, wat in 2002 deur die King Kommissie gepubliseer is, (King II), sluit omvattende aanbevelings ten opsigte van die verantwoordelikheid, implementering, aanwending en verslagdoening ten opsigte van risikobestuur in.

Die primêre doelwit van hierdie navorsing is om ondersoek in te stel na die verskillende risiko-areas waaraan maatskappye blootgestel is, asook die maatstawwe en metodes om hierdie risiko's te bestuur, deur middel van 'n evaluering van die korporatiewe bestuursverslae soos gepubliseer in die jaarverslae en om die vlak van die implementering van risikobestuurspraktyke in geselekteerde maatskappye vas te stel.

Die navorsing het getoon dat daar hoofsaaklik drie areas van risiko is waaraan maatskappye blootgestel is, naamlik strategiese, bedryfs- en finansiële risiko's. Dit het duidelik uit die navorsing geblyk, dat die meeste maatskappye die meeste van hulle tyd en hulpbronne met betrekking tot risikobestuur aan die bestuur van finansiële risiko's spandeer, terwyl strategiese risikobestuur die minste aandag kry.

Ten einde die implementering van 'n effektiewe risikobestuurstelsel te verseker, word dit aanbeveel dat maatskappye eers 'n strategiese risiko-oudit doen om vas te stel wat die maatskappy se strategiese risiko's, wat ook risiko's ten opsigte van die langer termyn insluit, behels, waarna 'n risikobestuur raamwerk ontwikkel moet word waarvolgens risiko's op 'n voortdurende basis geïdentifiseer, gewaardeer, aanvaar of verminder, hersien en gemonitor kan word.

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# **CHAPTER 1**

## **OBJECTIVES AND SCOPE OF THE STUDY**

### **1.1 INTRODUCTION AND BACKGROUND**

Corporate Governance is not merely a matter of compliance with mandates such as the King Code on corporate practices and conduct; it is also about instituting an internal control framework, reducing deficiencies in controls, improving inefficient business processes, and managing risk across the entire company.

Naidoo (2001:) states that corporate governance is a competitive advantage, provided that it is correctly understood and appropriately applied. If it is viewed as a “form ticking” exercise or something that is done once a year when the financial director writes the corporate governance section of the annual report, it will be words coming back to haunt the directors when the company does not meet shareowner expectations or fails. A very important part of good corporate governance is to implement a proper risk management strategy.

The collapse of some large worldwide companies in recent years could have partially been prevented if good corporate governance principles were adhered to in these companies. One of the main aspects that the King Committee on Corporate Governance (King II) have dealt with is the management of risk in the applicable enterprises. The King II recommendations are very clear about the responsibility, application and disclosure in respect of risk management in companies. This study will entail a detail look in the disclosure of risk management practices in a selection of listed companies, in order to determine to what extent it adheres to the recommendations of the King II report. By doing this a conclusion can be drawn on how serious companies are about implementing proper risk management policies as part of their day-to-day activities. To support this main objective it is necessary to understand the importance and relevance of risk management and for this reason a detail study will be done into the different types of risk companies are exposed to, in today's ever-changing business environment. In this chapter the design and layout of the investigation are described.

The problem statement, aim of the study, research methodology, as well as a chapter layout is also provided.

## **1.2 PROBLEM STATEMENT**

The King II Report on Corporate Governance incorporates a discussion of the recommendations made by the King Committee and includes a proposed Code of Corporate Practices and Conduct.

Paragraph 3, of the Code of Practices and Conduct, issued during March 2002, deals specifically with risk management. Paragraph 3.1 deals with the responsibility of risk management, whilst paragraph 3.2 refers to the application and reporting of risk management. The Code states that the total process of risk management in an organisation is the responsibility of the Board of directors. Therefore, the Board of directors should adhere to the following:

- Form its own opinion on the effectiveness of the risk management process.
- Set the risk strategy in co-operation with senior management and the executive directors.
- Decide on the risk appetite of the company.
- Make use of generally recognised risk management and internal control models to maintain a sound system of risk management and internal control.

A Board of directors committee should review the risk management process and the significant risks facing the company.

The Code also states that the Board of directors is responsible to do and implement certain disclosures in the annual report in respect of risk management and state the minimum disclosures as the following:

- That the Board of directors is accountable for the process of risk management and the system of internal control.

- That they regularly review the process for effectiveness and establishing appropriate risk and control policies.
- That the process to identify, evaluate and manage the significant risks faced by the company is an ongoing one.
- That there are adequate and effective systems of internal control in place to manage the significant risks faced by the group to an acceptable level.
- That there is a process in place, established by the Board of directors, to review the system of internal control for effectiveness.

It also requires that any other information that can assist in the understanding of the company's risk management processes should be provided in the annual report. If it is not possible for the Board of directors to disclose any of the aforementioned, this fact should be disclosed together with a suitable explanation.

Valsamakis, A.C., Vivian, R.W. & Du Toit, G.S. (1996:6) researched several aspects on the theory and principles of risk management and stated that the development of risk management in South Africa started in the 1970's. In 1975 Edmunson formed the South African Risk Management Association but this was unfortunately dissolved in 1979. This failure could largely be blamed on the focus of insurance brokers and risk management consultants on loss control and insurance, as well as on the lack of a sound theoretical base on which risk management principles could be developed.

According to Frost, C., Allen, J.P., Porter, J., & Bloodworth, P. (2001:vii) the focus of risk management in the 1980's and 1990's was largely on designing and implementing control frameworks, managing insurance portfolios and meeting corporate governance principles. The latter stemmed from increased attention on corporate governance following the publication of the Greenburg, Cadbury, Hampel and King Reports. Much attention was paid to the identification and elimination of risk in certain industries, which resulted in risk management experts developing new approaches to quantification of risk, but very often only in narrowly focussed areas.

Because of the rapid speed of change, companies are now finding that it is no longer adequate to take a solely defensive attitude to risk. Although control frameworks are needed as introductory steps to risk management, companies now need to manage risk for strategic advantage and improved customer satisfaction, as well as increased shareholders' value.

The big challenge facing today's risk managers is whether they are able to approach risk situations in a well-organised and integrated manner. There is a definite need to a **all-inclusive approach** towards risk management, which involves more than just well considered insurance management.

According to Shough (2003), management needs to acknowledge the fact that risk is an inherent part of any organisation's existence. If not dealt with properly, it has the potential to paralyse an otherwise successful growth strategy.

In the words of Teji (2003) risk management is "... uncertainties about an enterprise that it must understand and manage to achieve its objectives and add value".

According to Valsamakis *et al.* (1996:14) if one looks at it in practice, it means that risk management is a managerial function which has the purpose of protecting the organisation in total (people, assets, profits) against the negative consequences of pure risk in order to reduce the severity and variability of losses.

Manning (2000:15), states that because of globalisation, risk management could become more terrifying in the new millennium because companies are experimenting with business models, which dramatically raises the possibility of things going wrong, or of problems being detected too late.

Because different companies are exposed to different risks, a generally accepted classification of total company risk is to distinguish between strategic, business and financial risks.

- Strategic risks      -    Setting strategy is a key element in managing risk because it sets the direction for the business as a whole (Olsson, 2002:101)

- Business risks\*      -      Risks involved in the operational activities of the company, i.e. the processes to generate income and control costs.
- Financial risks\*      -      Relate to the cash flows in the company, how the operations are financed and what the future uncertainties of finance decisions already taken are.

\* (Marx *et al.*, 2003: 4-24)

In a study on corporate governance, Griffiths (2001: 268) states that only four of the hundred companies he surveyed, provided specific disclosures of the operating and financial risk management policies comprising more than merely financial initiatives, such as insurance coverage.

From recent publications it seems evident that there is a definite problem in respect of risk management and that companies are still not meeting the requirements of implementing a formalised risk management process, according to King II. In a survey done by Hieber (2003:15), considered South Africa's Basel II specialist, it was revealed that seven out of ten large financial institutions in Europe are not managing risk effectively. Basel II, when finalised, will establish the basic capital frameworks for committee member countries and will enforce banks to have a risk management strategy. While no major survey has been conducted in South Africa Hieber (2003:15) believes that the picture locally may be even worse.

Although this study will focus on the general corporate arena and not so much on financial institutions, it was found to be necessary to state the perceived current status of the financial sector in respect of risk management. The reason for this is that in a risk management survey done by Deloitte during a risk management summit in August 2003, they separated the delegates representing the financial sector from those in the more general corporate arena. They wanted to determine the extent to which they differed in their approach, as the financial sector has been highly regulated for a long time and the perception is that they are generally more advanced in risk management practices. Not surprisingly, the views on the critical success factors as well as the difficulty in implementation were reasonably consistent between the two groups. (Deloitte, Report on the Status of Risk Management in SA, Aug. 2003.)

From these statistics one can safely conclude that if it is perceived that the financial sector is supposed to be more advanced in the implementation of proper risk management processes but the survey done by Hieber (2003:15) shows that this is not the case, the general corporate arena is even worse off. It can be believed that listed companies find it even more difficult to implement a formalised risk management process.

The delegates at the abovementioned summit had to assess the relative importance and difficulty of twenty-five risk management activities within their overall risk management process. The results provided an insight into the hot issues presently facing risk managers. After the ratings of importance and difficulty were combined, it appeared that the five key issues of successful implementation of risk management processes, as perceived by the high-profiled delegates from a broad spectrum of organisations in South Africa, are the following (Deloitte, Report on the Status of Risk Management in SA, Aug. 2003):

- Embedding risk management into existing processes and activities.
- Developing an embedded process to link risk management to strategic objectives.
- Integration of assurance and risk management activities across the organisations.
- Developing an approach for identifying emerging risks.
- Design of key risk indicators.

The survey indicates that executive management currently views risk management as more of a compliance issue and has not yet realised its value as a business tool. A big concern highlighted by the survey was the fact that the participants rated the design of informative annual report disclosures as neither important nor difficult to implement. It is of great concern that they considered proper disclosures as unimportant, as a survey done by McKinsey suggests that analysts are paying significant attention to companies' risk management statements. ICAEW (1999) argues in a report named "No Surprises" that better risk reporting assists companies in managing investor expectations which

ultimately helps them to obtain capital at a lower cost. Risk reporting by companies should reflect business opportunities as well as threats (ICAEW, 2002).

## **1.3 OBJECTIVES OF THE STUDY**

### **1.3.1 General objective**

The primary objective of this dissertation is to present an overview of the progress listed South African companies have made on implementing a formalised risk management system as required by the King II Code on Corporate Practices and Conduct, as well as the types of risks that are dealt with by these companies. This will be done by analysing and evaluating the disclosure on risk management practices in the Corporate Governance and Risk Management reports included in the selected listed companies' annual reports. In order to understand the role of risk management in the subsequent successes or failures of companies, a detail investigation of the different sources of risks companies are exposed to and the measures available to manage these risks will be done.

### **1.3.2 Specific objectives**

The specific objectives of this dissertation are to identify, investigate, analyse and evaluate the following:

- The disclosures on risk management in annual reports of listed industrial companies in South Africa in order to assess the compliance with King II.
- Types of risks covered in annual reports of listed industrial companies in South Africa to obtain an indication of the importance of the relevant risks.
- The history and development of risk management.
- The importance of risk management.
- Strategic risks and strategic risk management.
- Operating risks and operating risk management.

- Financial risks and financial risk management.
- Recommendations on effective risk management practices.

## **1.4 HYPOTHESIS**

The hypothesis is that it is expected that listed industrial companies in South Africa will

- not have met the disclosure requirements on risk management policies in accordance with King II, and
- not have covered all the risks as suggested by King II in it's risk management practice.
- not fully have implemented proper formalised risk management processes in accordance with King II;

## **1.5 RESEARCH METHODOLOGY**

A quantitative research method will be followed whereby the annual reports of a number of selected companies will be evaluated to determine how they comply with recommended disclosure requirements in respect of risk management. From the top one hundred companies as published in the "Financial Mail Top Companies" only the industrial companies were selected resulting in a total of 80 companies that formed part of the study (Financial Mail Top Companies, 2003, pp. 28-36). A letter was written to these companies, explaining to them the objective of the research and requesting them to please forward their latest annual reports. Some companies reacted soon after the request and others only after a second request. Some companies have put the researcher on their permanent mailing list resulting in the latest annual reports to be received by the researcher. This resulted in the annual reports that will be evaluated to range from 2003 to 2005.

The research will firstly entails a literature study on the theoretical aspects of strategic, business and financial risks and risk management, in order to understand what proper risk management practices consist of and the role of risk management as part of the business environment. This must be done in order to understand what is considered to

be adequate disclosure of risk management practices in listed companies and why it is important to implement proper risk management policies.

Thereafter an empirical study will be done on the selection, as described above, of listed industrial companies in South Africa. This empirical study will entail the critical evaluation of the disclosure on risk management policies and practices in order to determine the progress made by them on the implementation of a formal risk management process as recommended by King II. This empirical study will also include a study of the type of risks covered by the selected companies as disclosed in their annual reports.

From this a conclusion will be drawn on how successful proper implementation of a formalised risk management process is in South African listed companies as required by the King II report on Corporate Governance and if the risks that King II require businesses to cover, is at least covered by their risk management system.

## **1.6 CHAPTER LAYOUT OF THE STUDY**

In Chapter 1 the research problem, the aim of the study, hypothesis and research methodology are outlined.

In Chapter 2 the importance of risk management as well as a brief look into the history of risk management will be discussed.

In Chapter 3 a brief look into strategic risk management will be done.

In Chapter 4 the most important business/operational risks that listed companies are facing today, will be investigated and discussed.

In Chapter 5 the most important financial risks that listed companies are facing today, will be investigated and discussed.

In Chapter 6 an investigation will be done on a selection of the top South African listed industrial companies, in the disclosure on risk management practices in their annual reports. This will be done to determine the current status of the implementation of a

formal risk management process according to King II, as well as the type of risks that are covered by the selected companies' risk management program.

In Chapter 7 a summary, conclusion and recommendation will be done.

## **1.7 CONCLUSION**

The objectives and scope of the study, as well as the research methodology and chapter layout were detailed in this chapter.

To fully understand the total magnitude of proper risk management, a detailed study will be done in chapter 2, in the importance and application of risk management, which will also include a study of the different sources of risk. A brief look into the history of risk is also done in the next chapter.

## **CHAPTER 2**

### **A BRIEF LOOK INTO THE HISTORY OF RISK AND THE IMPORTANCE OF AND RESPONSIBILITY FOR RISK MANAGEMENT**

#### **2.1 INTRODUCTION**

Although the aim of the study is to determine the status of the implementation of risk management practices in listed companies by evaluating disclosure there-on, it is necessary to take a brief look into the history of risk in order to fully understand the importance of risk management in modern times. It is also necessary to investigate the application of risk management in practice and the issues that companies are facing in order to implement good risk management practices, as well as the place of risk management within good corporate governance structures. This will be dealt with in this chapter.

Risk is one of those words that changed its meaning over the years (Olsson, 2002:3). In ancient times people's lives were defined in terms of their location, role and knowledge. They believed in religion and magic and there was very little room for the term "risk". People were resigned to live with the consequences of events they could not control. As the level of commercial activity increased, voyages of discovery opened new horizons and developments in the fields of science and mathematics and people started to understand that risk was associated with human actions and that this meant that they could exercise some degree of control over it. Bernstein (1998:3) states that the modern understanding of risk originated from the Hindu-Arabic numbering system that reached the West seven to eight hundred years ago, but that the serious study of risk already began during the Renaissance.

#### **2.2 HISTORY AND BACKGROUND OF RISK MANAGEMENT**

Bernstein (1998:3) states that a challenge made by Chevalier de Méré, a French nobleman to a famed French mathematician, Blaise Pascal to solve a 200-year-old

brainteaser by Luca Paccioli, led to the discovery of probability, the mathematical heart of the concept of risk. Pascal turned to Pierre de Fermot, a lawyer and brilliant mathematician for help and their solution to Paccioli's puzzle meant that for the first time people could make decisions and forecast the future with the help of numbers. In the ancient worlds people managed to make decisions with no real understanding of risk or the nature of decision-making. In modern days we rely less on superstition and tradition because our understanding of risk enables us to make decisions in a rational mode.

As the years passed, mathematicians succeeded in transforming the probability theory into a powerful instrument for organising, interpreting and applying information, which resulted in quantitative techniques of risk management emerging, and helped to trigger the tempo of modern times.

The structure of the normal distribution and the discovery of the concept of standard deviation were done in 1730 by Abraham de Moivre (Bernstein, 1998:5). Together, these two concepts make up what is known as the Law of Averages and are essential ingredients of modern techniques for quantifying risk.

Bernstein (1998:5) stated that almost exactly 100 years later after the collaboration between Pascal and Fermat, an English minister, Thomas Bayes, made a remarkable advance in statistics by demonstrating how to make better-informed decisions by mathematically blending new information into old information. All the tools we use in risk management today, have originated from developments that took place between 1654 and 1760, with only the following two exceptions (Bernstein, 1998:6):

- Francis Galton, an amateur mathematician, discovered regression to the mean in 1875.
- Nobel Laureate Harry Markowitz demonstrated mathematically in 1952 why putting all your eggs in one basket is an unacceptably risky strategy and why diversification is very important.

Although it can be very risky to "put all one's eggs in one basket", another view could be, that one **can** put all one's eggs in one basket, providing that the basket is then watched carefully.

Olsson (2002:3) says that it took many hundreds of years and a number of key milestones that resulted in people's better understanding of risk in order to develop some of the key components still used by today's risk managers. Some of the most important milestones were the development of, among others, the following (Olsson, 2002:4):

- The laws of probability (Pascal/Thermat).
- Utility theory (Bernoulli).
- An understanding of regression to the mean (Galton).
- Diversification theory (Markowitz).
- Strategy/game theory (von Neumann).

Risk management has changed enormously over the last 30 years and the speed of change is accelerating (Van Deventer, D.R., Imai, K. & Mesler, M., 2005:5). Financial institutions were bewildered at the heights to which interest could rise and the period from 1974-1975 was seen as a period of major interest rate crises in the United States. They then began to look for ways to manage risk and savings and loan institutions whose main asset classes were 30-year fixed-rate mortgage bonds, began to offer floating rate mortgages for the first time.

The conclusion can be drawn from the above that risk is as old as mankind itself, but the management there-of changed radically in recent times, because of rapid changes in the modern business environment.

## **2.3 WHAT IS RISK?**

### **2.3.1 Definition of risk and risk management**

Risk can be defined in many different ways but in common terms most people will suggest that "... risk is the possibility of adverse consequences happening" (Olsson, 2002:5). In general, risk is mostly viewed from a negative perspective and attention usually focuses on potential losses, but the possibility is always there that a lot of

benefits can be obtained by taking risks. Therefore, the definition adopted by Olsson (2002:5) that "... risk is the uncertainty of future outcomes", is a better description of risk. From a risk management point of view there is the uncertainty about

- whether the event/occurrence will take place; and,
- if it does take place, what the outcome will be.

Lucouw (2004:80) defines risk as the chance that some unfavourable event will occur, or the chance of not meeting objectives, or not arriving at a particular destination. He further states that there usually are negative connotations to the concept of risk, because there is an expectation that the actual outcome of an event will be worse than the expected results. Risk should be managed at a favourable level between upper and lower risk levels and not be avoided, because risks that cannot be controlled will, eventually, result in failure (Lucouw, 2004:82). Total avoidance of risk will prevent the business to improve. Risks should be taken when the rewards from taking the risk exceed the penalty associated with the risk.

LMJU (2003) says that one definition of risk is "... the threat or possibility that an action or event will adversely or beneficially affect an organisation's ability to achieve its objectives." This suggests that risk is not merely confined to averting potential misfortunes and disasters or guarding against harm and damage to individuals, infrastructure and reputation. It also relates to not missing an opportunity and to taking the initiative at the right point of time.

Herman and Head (2002) state that risk exists simply because of the possibility that the future may be surprisingly different from what was expected. These surprises could bring either good or bad results generating threats of losses or creating opportunities for gains. Mostly, a risk will contain both and the objective will be to determine if the gains will outbalance the losses.

Valsamakis (1996:14) defines risk management as "... a managerial function aimed at protecting the organisation, its people, assets and profits, against the consequences of pure risk, more particularly aimed at reducing the severity and variability of losses".

Valsamakis (1996:26) also states that managing risk implies not only the financial provision for the consequences of an event, but also the effort to

- reduce or minimise the likelihood of the loss-producing event occurring; and/or
- reduce or minimise the negative effects (mostly financial) once the event has occurred.

Das (2001) avers that risk appears to be one of the most commonly abused concepts in social science and researchers often differ significantly in respect of their constructs of risk. Economic sciences define risk as a condition in which decision makers know the possible consequences of the decisions, as well as their associated probabilities. In strategic management it is seldom that all possible decision consequences and their probabilities are known, thus risk is often used as if it is the equivalent of “uncertainty” or “unpredictable consequences or probabilities”. Seen in this context, strategic management scholars refer to risk as the variance in performance beyond the control of decision makers. What seems obvious in recent years, according to literature on strategy, is that managers think of risk only as “down-side” possibilities and they are more concerned with negative variations in performance.

Alijoyo (2002:3) defines risk as the chance of something happening that will have an impact upon objectives. He further says that risk is equal to uncertainty and the higher the uncertainty is, the higher the risk of doing business becomes. The target is to achieve a proper balance between risks incurred and potential returns to shareholders. This requires Board of director's of directors to ensure that there are systems in place that effectively monitor and manage these risks with a view to the long-term viability of the company.

According to the King II Report on Corporate Governance (Section 2, chapter 1) risk management can be defined as the identification and evaluation of actual and potential risk areas as they pertain to the company as a total entity, followed by a process of either termination, transfer, acceptance or mitigation of each risk. The risk management process entails the planning, arranging and controlling of activities and resources in order to minimise the impacts of all risks to levels that can be tolerated by shareowners

and other stakeholders whom the Board of directors has identified as relevant to the business of the company. Risk management can thus be seen as a process that uses internal controls as one of the measures to temper and control risks. One of the tools to manage risk is internal control, which should be included in the daily activities of the company when they do business plans, budgets and other routine operational activities. The purpose of internal control is to reduce risk to an acceptable level, as some risks do not make economic sense to control. Internal control can thus be defined as a process designed to provide reasonable assurance regarding the achievement of organisational objectives with respect to

- the effectiveness and efficiency of operations;
- the safeguarding of the company's total assets;
- compliance with applicable laws, regulations and supervisory requirements;
- supporting business sustainability under normal, as well as adverse operating conditions;
- the reliability of reporting; and
- behaving responsibly towards all stakeholders.

One very important aspect of risk management is that it should be practised throughout the company by all staff in their day-to-day activities, but it remains the responsibility of the Board of directors. It should, however, not be seen as something that need to be done just to avoid danger, but it must also be used to seize opportunity (Olsson, 2002: xiii).

ICAEW (2002) describes risk as the amount of uncertainty as to the benefits that the business will derive from pursuing its objectives and strategies. Risk includes both potential for gain and exposure to loss.

Lovemore and Brümmer (2003:9) define risk as the possibility of any loss that could be caused by a known occurrence, for example droughts have been known to ruin entire crops and cause death among livestock. If the drought is not too serious, it may result

in only limited losses, so although the phenomenon of droughts is certain, it is very difficult to determine how much loss will be incurred; thus droughts represent risk.

Coyle (2000:10-11) says that risk has a two-way nature. Although he defines risk as exposure to change when the size, direction or timing of any future changes are uncertain, he stated that change can often be favourable rather than negative and a company can benefit from an exposure to financial risk whenever a change is favourable. In general, the management of most non-financial companies are risk – averse, because they tend to avoid risk unless there is a reasonable expectation of increased profits. Some companies will often prefer the certainty of a smaller profit rather than an exposure to financial risk that could result in a higher profit, but also contains the possibility of a loss.

Van Deventer *et al.* (2005:6) summarize the best practice definition of risk management as "... the discipline that clearly shows management the risks and returns of every major strategic decision at both the institutional level and the transaction level. Moreover, the risk management discipline shows how to change strategy in order to bring the risk-return trade-off into line with the best long and short-term interests of the institution".

### **2.3.2 Conclusion**

Although the viewpoints from the above authors seems very dissimilar, they actually all means the same thing and the conclusion can be drawn that risk is the possibility that something can happen in the future, which can be different from what was expected and that this event, if it takes place, can have a negative impact on the business or create opportunities for the business to grow. These risks should be identified, managed and monitored, and not necessarily avoided, to acceptable levels that fit into the pre-determined risk appetite levels of the company. Risk management can thus be defined as a discipline for dealing with the possibility that some uncertain future event can either cause harm to the organisation, or result in an opportunity for the business to grow. It provides strategies; techniques and an approach to recognise and confront any threat faced by the company, but also take advantage of any opportunities that may come along in fulfilling its mission.

## **2.4 THE RESPONSIBILITY FOR RISK MANAGEMENT**

King II quotes that the Board of directors has the overall responsibility for risk management and internal control within the organisation (King II Report on Corporate Governance, Section 2, chapter 2). Management is accountable to the Board of directors for the process of risk management and although they may appoint a chief risk officer to assist in the execution of the risk management process, the accountability to the Board of directors remains with management and should be the responsibility of every employee. In other words, the risk management process does not reside in any one individual or function, but requires an inclusive team-based approach for effective application across the company. To assist it in the execution of its duties in this regard, the Board of directors may appoint a dedicated committee to review the risk management process and the significant risks facing the company.

Because risk management is an inherent operational function a Board of directors committee comprising executive directors and members of senior management who are accountable to the Board of directors is best placed to evaluate risk in the company and to report on it to the Board of directors. Even so, it remains the responsibility of the Board of directors to ensure appropriate disclosure in relation to risk management in the annual report as part of its oversight role (King II Report on Corporate Governance, Section 2, chapter 2).

In a business environment where shareholder lawsuits and regulatory scrutiny are increasing, the commitment to effective risk management should begin with the Board of directors. Running core business effectively, including proper risk management, is what creates shareholders' value. To discharge these large responsibilities, a Board of directors has the following two choices (Anson & Ma, 2003:26):

- The Board of directors can form a risk management committee comprising of directors, which would be responsible for reviewing the company's primary financial and operational risks and for overseeing the overall risk from the combination of strategic plans, capital structure and cash flow volatility.

- The Board of directors can form a risk management committee of senior executives, which might be chaired by the chief risk officer. This committee will be responsible for all the risk analyses and reporting for the company and also to present this information, with recommendations, to the company's Board of directors. A logical place for this presentation would be the Board of director's audit committee.

The important factor is that the Board of directors should assume a direct and engaged role in the management of the company's business and financial risks, because they are responsible to act in the best interests of the company's shareholders.

Anson and Ma (2003:22) say that companies face varied complex risks and that these risks often mean the difference between success and failure. Most Board of directors in the past have taken a very vague approach to managing these risks, demanding little if any information and even less follow-up. Today it is of utmost importance that Board of directors play an active role in managing risk, assuring that a sound system is in place for assessing and reducing risk, and making the Board of directors a key part of this system. Although shareholders are the ultimate decision-makers for public companies, they cannot realistically oversee the risk management of the entire operation; therefore, they must delegate this task to their agents, the company's Board of directors. Because of the complexity of today's business environment, where new and complex risks can have a major impact on shareholder value, companies should implement good corporate governance practices, which include effective oversight of risk management. Anson & Ma (2003:22) further state that after the collapse of Enron and other corporate scandals, many boards of directors have recognised the need for enhancements to their current system of governance. Some Board of directors often at the request of audit committees, have employed independent consultants to help them review risk management policies and operational practices. Others have empowered the internal audit staff or the Chief Risk Officer to perform rigorous self-assessments of risk management practices. The main point is that effective Board of directors insist on systematic efforts to identify and address recurring and newly emerging risks. The Board of directors should seek out data needed to make informed decisions and execute their duties with precision, consistency and expertise. This action recognises

that risk management is not merely a defensive action, but a key element in strategic planning and a tool for creating and sustaining shareholder value.

Norton (2005) states that the recent parade of corporate scandals could be blamed in part on a lack of effective but broad operational and financial hazards to the enterprise. Risk management has risen to the top of the agenda for some directors and although risk management falls under the authority of the audit committee, many Board of directors, including that of MCI (formerly WorldCom), have appointed special risk management committees.

King II is very clear on what should be reported and disclosed in respect of risk management practices. The risk committee should consider the risk strategy and policy at operational level, as well as the reporting thereon, whilst the audit committee should consider the results of the risk management and internal control processes and the disclosure thereof to the extent that it is concerned with risk management.

An essential part of the risk management process is the effective and continuous monitoring thereof, as the Board of directors cannot rely solely on the enclosed monitoring processes within the company to discharge its responsibilities. Therefore it should receive and review reports on the process that constitutes risk management at appropriately considered intervals. The Board of directors is also responsible to ensure that the processes and outcomes surrounding key risks are assessed and documented systematically at least once a year for the purposes of making its public statement on risk management. This should include an estimate of the chance of occurrence, where possible, as well as the quantification of the probable impact and comparison to available benchmarks. This assessment should at least address the company's exposure to the following: (King II Report on Corporate Governance, Section 2, ch. 2).

- Physical and operational risks
- Human resource risks
- Technology risks
- Business continuity and disaster recovery

- Credit and market risks
- Compliance risks.

In the annual report the Board of directors should acknowledge that it is responsible for the risk management process and for continuously reviewing its effectiveness.

## **2.5 THE APPLICATION OF RISK MANAGEMENT**

The chief risk officer should be empowered to drive risk awareness and the Board of director's risk management agenda (Anson & Ma, 2003:25). The objectivity and independence of risk management in a company is crucial and, therefore, chief risk officers must not give in to improper political or business performance pressures. The Board of directors should be composed of people with a relevant mix of skills and experience to execute its governance responsibilities effectively. The required skills include knowledge of some of the commonly used risk measurement tools like "value at risk" principles, "Monte Carlo simulations" and "cash flow at risk". Some of the directors should be closely familiar with the company's risk management history and they should also have access to external experts to assist them in addressing complex risk issues and adapting sophisticated risk methods to the company, especially for companies with a history of volatility or a recent breakdown in risk management.

From the above it is clear that Board of director's members should seek opportunities to learn about the latest financial risk management innovations relevant to their business as well as key tools for risk identification, measurement and monitoring.

Frost *et al.* (2001:18) state that from management's perspective, the first step toward clarity is the recognition that each risk issue must be viewed from the following three distinct perspectives:

- Risk as opportunity
- Risk as uncertainty
- Risk as hazard.

Sharon (2005) says that risk should be evaluated on a continuum from the hazards that should be mitigated to the uncertainties that characterise most of the activities in the operating environment and must be managed to the myriad of opportunities that are presented through the execution of the business strategy. The risk management processes culminate at the opportunity end of the risk continuum. The key to risk management in a complex organisation is the ability to take advantage of the opportunities that advance the strategy.

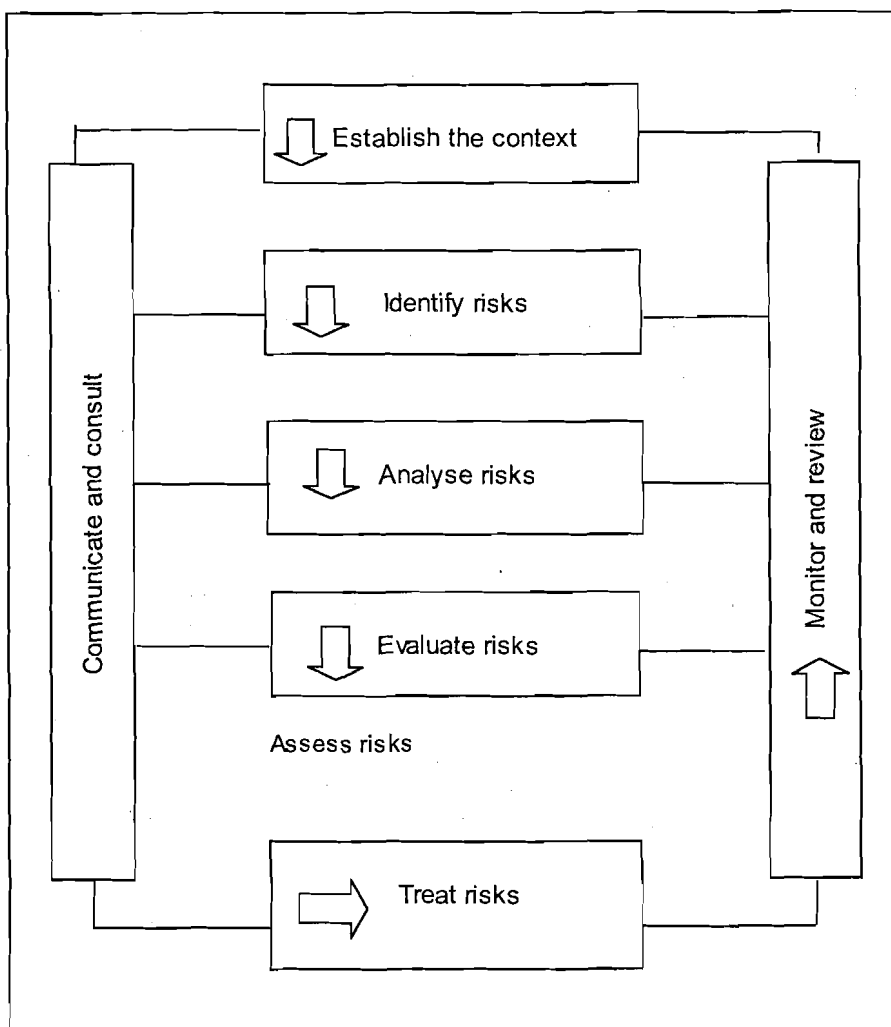
Risk management in this context is about the ability to not only identifying the correct opportunities but also to maintain discipline in fulfilling them. Good risk management practices means that management should have the discipline to not become involved in interesting opportunities that do not support the strategic objectives of the company and which require solid assessments of risk in the competitive environment.

Alijoyo (2002:5) quotes that risk management is the term applied to a logical and systematic method of identifying, assessing, treating, monitoring and communicating risks associated with any activity, function or process in a way that will enable the company to minimize losses and maximize opportunities. Figure 2.1 provides an illustration of this. As can be seen from Figure 2.1, the management process for risk contains the following (Alijoyo, 2002:5-6):

- Establish the strategic, organisational and risk management context, the criteria against which risk will be assessed and the structure of the analysis.
- Identifying what, why and how things can arise.
- Analysing risks determining the existing controls and analysing risks in terms of likelihood and consequence in the context of those controls.
- Assessing and prioritising risks.
- Treating risks. The following five possible treatments are identifiable:
  - **Avoid** the risk by not doing the business initiative
  - **Retain** the risk and accept the consequence if it occurs

- **Transfer** the **risk** through insurance and or co-operation with others
  - **Share** the risk **through** insurance and or co-operation with others
  - **Reduce** the **risk** through risk mitigation actions and or embedded internal control mechanisms
- Monitor and review the performance of the risk management system and changes, which might affect it.

**Figure 2.1 Risk management process**



**Source: Alijoyo, 2002:5**

In Section 2, chapter 4 of the King II Report it is stated that when reviewing reports on risk management and internal control, the Board of directors should (King II, section 2, chapter 4, par.2):

- consider what the company's significant risks are and how they have been identified, evaluated and controlled;
- assess the effectiveness of the related process of risk management;
- consider if the necessary action is being taken in time to rectify any significant failings or weaknesses; and
- consider whether the results obtained from the review process indicate that more extensive monitoring is required.

The reports from management to the Board of directors should provide a balanced assessment of the significant risks and the effectiveness of the system of internal control in managing those risks. It is very important that management communicates openly with the Board of directors on matters relating to risks and controls.

The Board of directors should then consider the changes to the internal and external environment, significant risks and the way they have been managed since the last assessment.

The Board of directors should also consider the following: (King II, section 2, chapter 4, par.4)

- The fulfilment of the company's objectives as well as any specific objectives set for the risk management process;
- The reasons relating to the non-achievement of objectives;
- The company's ability to respond to significant changes in its internal and external business environment;

- The coverage and quality of management's monitory process in relation to the assessment, identification, evaluation, control and management of risk;
- The structure in place to ensure effective communication of the results of the risk management process;
- The structure in place to rectify identified areas of exposure;
- The effectiveness of the company's reporting process;
- Management's ongoing processes for development, implementation and monitoring of the risk control system where the Board of directors becomes aware at any time of significant failings or weaknesses in such systems.

From the above the conclusion can be made that the Board of director's role in risk management should not be underestimated, as they are responsible for the total process of risk management. It is clear that they should be involved from the identification, evaluation and controlling of the significant risks right through to the assessment of the effectiveness of the system of internal control and the related process of risk management as well as the reporting and communication thereof.

King II (Section 2, chapter 4, paragraph 5) recommends that in its statement of how the company has dealt with risk, the Board of directors should adhere to the following procedures and concepts:

- State that it's responsible for risk management and the system of internal control, including the establishment and communication of risk tolerance and risk and control strategies and policies in the company, and for reviewing the system of risk management for effectiveness.
- State that there is an ongoing process for identifying, evaluating and managing the significant business risks faced by the company, and that it has been in place for the year under review and up to the date of approval of the annual report.
- State that there is an adequate and effective system of internal control in place to mitigate the significant risks faced by the company to an acceptable level. Such

a system should be designed to manage, rather than eliminate, the risk of failure to achieve business objectives.

- Disclose the process as established by the Board of directors to review the system of internal control and describe
- the committees used to assist the Board of directors in discharging its responsibilities in this regard;
- the management processes for reviewing the system of internal control for effectiveness such as supervision, review, segregation of duties and self-assessment techniques;
- normal management processes such as monthly management accounts, safety, health and environmental reports and other similar reporting that discusses risk and control issues;
- assurance gained from various providers such as internal and external audit;
- mechanisms used to report significant control weaknesses and failings and the frequency thereof: this should include a description of exception reporting and regular reporting; and
- the Board of director's procedures in performing its annual effectiveness review of the risk management process and internal control environment.
- Disclose where material joint ventures and associates have not been dealt with as part of the group for the purposes of applying these recommendations.
- Where desired, provide additional information in the annual report to assist understanding the company's management processes and system of internal control.
- State where it cannot make any of the disclosures set out above, and provide a suitable explanation for the benefit of shareowners and relevant stakeholders

The conclusion can be made that King II not only expects from the Board of directors to be involved in the total process of risk management and internal control, but to also make declarations in the annual report that they accept full responsibility for the process of risk management and the effectiveness of the internal control system, as well as the proper reporting there-on and communication there-of. If any of these cannot be disclosed, the Board of directors should provide suitable explanations for the failure.

## **2.6 THE IMPORTANCE OF RISK MANAGEMENT**

Anson and Ma (2003:22) quote that risk is an essential part of a competitive economy and that too much risk can be fatal to a company, but too little risk can result in a company to miss attractive opportunities and lower the return on economic capital. Attempts to eliminate all risks will sacrifice returns without a comparable reduction in risk. For this reason senior management and the Board of directors of listed companies must find the proper balance between risk and return for their business.

Lucouw (2004:82) says that risk is necessary for a business to fulfil its mission and that it isn't a totally negative force that should be avoided at all cost. Risk is one of the most important factors that contribute towards development because when potentially risky situations occur, new possibilities become evident and improvements can take place (Lucouw, 2004:85). Risk doesn't just offer danger, but also opportunities and new resources, which can drive innovation and the development of new theories, methods and tools for further enhancement.

Olsson (2002: xiii) avers that to obtain rewards from opportunities, it is necessary to take risks. He also says that a basic view is that it is riskier to operate in emerging markets than in the developed world, largely because they are often characterised by greater economic and political instability and are more vulnerable when external shocks, such as natural disasters, occur. This is, however, no reason to steer clear of these markets because there are higher levels of return on offer for those that understand and can manage risk effectively. It is believed that many of the risks that exist in the developed world also exist in emerging markets but that there is other new twists that

mean they appear in different guises. The nature of risk itself is changing because the world has become more complex and interconnected.

Brealey and Myers (2003:753-755) state that companies need to take risks in order to add value to their business. They say that most of the time companies consider risk to be God-given, which is not always true. Managers can reduce the risks the company takes by building flexibility into their operations, e.g. a petrochemical plant that is designed to use either oil or natural gas, reduces the impact of an unfavourable movement in fuel prices. Managers should not avoid all risks but if exposure to risks for which there are no compensating rewards could be reduced, larger bets can be placed when the odds are in the favour of the company.

ICAEW (2002) concludes that risk is essential to an enterprise because it is inherent in the pursuit of opportunities to earn returns for its owners. Striking the balance between risk and reward is the key to maximising these returns.

The challenge facing modern risk managers is simply whether or not risk management as it pertains to pure risk situations can be approached in a structured and integrated manner (Valsamakis, 1996:12). Whilst no further attempt is needed to put risk in perspective, there is no doubt that a need exists for the effective management of risk – a total approach to the problem of risk – which entails more than simply prudent insurance management. Insurance does represent an effective way of risk **cost** transfer; however, the preoccupation with insurance as a way of risk treatment work against a strictly integrated approach to the management of risk, one that subscribes to both elements of physical and financial risk management, and which recognises the responsibility for controlling risk.

Valsamakis (1996:13) argues that however management-orientated the definition of risk management may be, it becomes an academic issue with little meaning unless what is implied is put into practice. The underlying implication of the definition is that a systematic approach to the management of risk is definitely necessary, and that this becomes more obvious when one attempts to consider the risk challenges of the future. He further states that there is no doubt that today the general world is filled with uncertainty, and to identify clear trends for the future is indeed difficult and even

subjective. In this era of rapid and indeed accelerating change, one should view the discipline of risk management as a mechanism for coping with the effects of change. From such efforts a range of possible futures can be constructed, leading to better decisions and more effective business management.

To place the significance of the study of risk management in perspective it will be useful to examine the **general** importance of risk management. As risk management is generally seen as the identification, analysis and financial control of those risks that negatively affect the assets, and earning capacity of an organisation, it seems that it displays a significant orientation towards a general management function. Risk management must become more pro-active, holistic and systemic to become an integral part of general management as opposed to a set of isolated functions comprising risk control and risk financing.

The importance of a systematised approach to managing risk becomes more prominent when the following trends are considered: (Valsamakis, 1996:14).

- The increasing sophistication of risk
- The increasing concentration of risk
- The increasing awareness of risk
- The decline of insurance as a risk-financing technique.

Over the years during which risk management has evolved, there has developed a substantial body of literature aiming to provide a routine, if not a discipline, to ensure corporate survival in the face of risk (Valsamakis, 1996:15). Such thinking has led to the present understanding of risk management as a process comprising the following four discrete stages.

- Risk identification
- Risk quantification
- Risk control directed at loss elimination, or more usually, loss reduction and

- Risk financing via transfer.

Valsamakis (1996:16) refers to an observation made by Strutt that the risk management model is a static one, envisaging discrete stages followed in a predetermined and logical sequence. It is suggested that the static nature has resulted in many risk management companies organizing themselves into two distinct divisions (a) one for risk control, (b) one for risk finance - unfortunately with a limited direct working relationship between the two. A considerable body of literature relating to each of the four before mentioned stages exist, with advice on the preferred methods of approach to each subject. Text dedicated to risk management lack the required integration and are, in the main, written from an insurance point of view.

Valsamakis (1996:16) says this assertion is not altogether unexpected as insurance brokers, who, by the nature of these businesses, have a strong leaning toward insurance and extensively market the concept of risk management. Kloman (1987:62) says that as long as risk managers over-emphasize insurance buying and managing, they will be incapable of responding to the real needs of their organisations.

Wessels (2003) observes that the events surrounding Enron have shaken the audit industry and the eyes of the business world are on what audit firms will do in order to ensure that audit independence is not compromised. Numerous pages of possible solutions to this problem could be generated but that really addresses only one half of the issue. The more important other half lies in the way that businesses are run and managed, and how risks faced by companies are managed. The Enrons, Barings Bank, Saambou's and Unifer's of this world will keep occurring until proper risk management is a high priority for every company director, manager and employee. Regulations like King II, Turnbull and Basel, all have the same overall objective, which is to **protect shareholders and public interest from businesses, which are not well managed.** (Wessels, 2003).

These regulations are here to stay and they will probably be enforced more formally in the future. The choice a company director has is whether to comply with regulations like King II for the sake of compliance **or** because it simply makes good business sense.

Whatever the choice, there will be certain issues that will have to be faced when implementing risk management in a company (Wessels, 2003).

From the above the conclusion can be drawn that risk is inevitable and risk-taking is an essential requirement for any dynamic business that is seeking continued success. It is the attitude towards risk that will determine the company's success in the end, because risks should not be avoided but managed within predetermined risk appetite parameters.

## **2.7 CORPORATE GOVERNANCE AND RISK MANAGEMENT**

The primary aim of good corporate governance is to ensure that corporate risk management becomes an integrated management process rather than an isolated year-end exercise. Risk management should be used to help businesses achieve their key objectives and the review procedures must cover business, operational, compliance as well as financial control.

Naidoo (2001) says that risk management in a corporate governance context is simply the Board of directors and management's responsibility of identifying and assessing the significant obstacles (risks) in the way of achieving business objectives, developing and prioritising action plans to minimise the risk to an acceptable level and the monitoring and reporting of this process. A proactive approach towards strategic and business risk management results in managing risk at the higher tiers, optimising opportunity and creating success for organisations, while managing risk at the lower tiers becomes a defensive fire-fighting exercise.

The objective of corporate governance is to provide a blueprint for companies to manage in the interests of all stakeholders – not just the managers. It is a control system intended to provide a balance between managerial risk-taking and entrepreneurial energy with effective monitoring so that management interests are aligned with the interests of those who have entrusted their capital to the enterprise and other stakeholders.

Alijoyo (2002:8) quotes that the ultimate objective of good corporate governance is company value creation through sustainable company performance, which results from doing business in an appropriate manner. Since the company's performance and risks are inextricably linked to each other, the structures and processes associated with good corporate governance practices can improve organizational performance while simultaneously reducing liability risks. It is impossible that a company will reach "good corporate governance" status without a proper corporate enterprise risk management strategy in place.

South African companies face a formidable array of risk management challenges such as financial market volatility, corporate governance scandals and regulatory imperatives (Deloitte: 2005). In light of this Deloitte has undertaken a rigorous analysis of risk management issues to determine the overall level of awareness of the importance of risk management amongst the senior management of companies and their attitude towards the critical risks facing their companies. The finding of the survey indicated that South African companies primarily undertake risk management initiatives in response to regulatory imperatives and only a limited number of companies see risk management as a way to develop competitive advantage. They concluded that companies in general see risk management as a separate discipline and not as a fundamental part of their governance framework or strategic planning process; however, the process of corporate governance includes the maintenance of effective risk management by a company.

## **2.8 ISSUES FACED BY COMPANIES IN IMPLEMENTING GOOD RISK MANAGEMENT**

### **2.8.1 The cost of implementing good risk management**

To implement a good risk management system, much commitment, time, money and more importantly, a collective effort are required from the total organisation (Wessels, 2003). It would be worthless to spend so much time and money managing risks that it becomes impossible to run the business. It has to be accepted, that not all risks can be managed and certain risks will have to be accepted in order to run a business. In fact,

the very first paragraph of the risk management section of King II (King II, Section 2, Chapter 1, par.1) contains the following statement:

**“Enterprise is the undertaking of risk for reward”.**

What is needed from the directors is that they must understand the risks facing their organisation in specific, and what their impact will be on the achievability of the company's objectives and then mitigate those risks that will have an unacceptable impact on the business.

### **2.8.2 Culture and awareness**

Effective risk management is dependent on commitment and should start at the top of the company and filter down to the lowest level. King II (King II, Section 2, Chapter 3, par. 1.1) makes the following statement on the culture of control: “This sets the tone of the company and should be seen as a foundation for all other components of risk management and control in providing the necessary discipline and structure.”

The issue that will be faced by the directors is to assess the culture of control in the company and to lead the transformation process to the desired state where all employees see risk management as part of their responsibilities. This can be achieved by way of the following: (Wessels, 2003).

- Leading by example by showing employees that the directors are committed to better risk management.
- Creating an awareness of the purpose and benefits of risk management.
- Clearly defining the risk management process to be followed in the company and what the responsibilities of employees are in this regard.
- Ensuring that risk management is entrenched into the way of doing business so that it is not seen as an add-on. The way to do this is by integrating risk reporting into the current reporting structure so that risk becomes a topic to be discussed regularly in management meeting, etc.

- Implementing a common code of conduct for all employees.
- Implementing effective training programmes.
- Integrating risk management responsibilities into the performance management process.

### **2.8.3 Risk appetite of the company**

The point where a risk becomes serious enough for a company to start spending time and effort into its management determines the risk appetite of the company. Depending on the impact of the risk and probability of occurrence, there might be different management strategies for different risks such as the following: (Wessels, 2003).

- A risk with a very high impact but low probability to happen (e.g. flood, earthquake), the management strategy might be to insure the company against such risk.
- A risk with a very high impact and high probability to happen might be totally unacceptable to the company and the management strategy, therefore, might be either to avoid the risk if possible, or to implement action plans to reduce the impact or the likelihood of occurrence.
- A risk with a low impact and low probability to happen might be acceptable to a company, depending on the risk appetite. The management strategy might be to keep note of the risk, but not to commit any resources into the management of these risks.

The risk appetite of the company would be influenced by, among others, the following factors (Wessels, 2003):

- Risk appetite of the shareholders;
- Public interest in the company;
- Growth targets for the company;

- Industry in which the company operates.

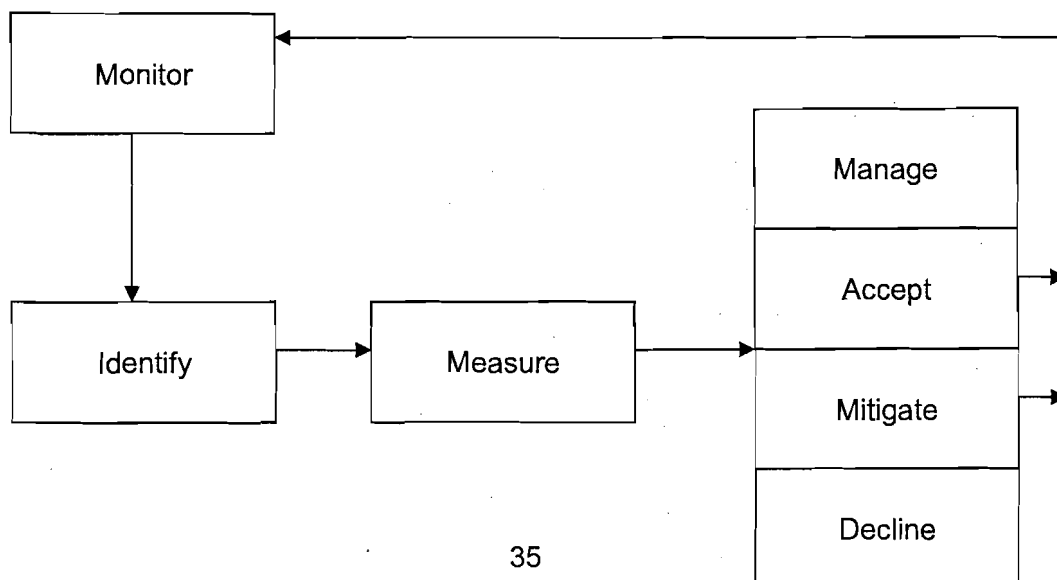
Risk appetite will best be expressed as a series of boundaries, appropriately authorised by management, which give each level of the organisation clear guidance on the limits of risk, which they can take. The concept may be looked at in different ways depending on whether the risk being considered is a threat or an opportunity. When considering threats the concept of risk appetite embraces the level of exposure, which is considered tolerable and justifiable, should it be realised. When considering opportunities the concept embraces consideration of how much one is prepared to actively put at risk in order to obtain the benefits of the opportunity (HM Treasury, 2004:23).

Olsson (2002:17) states that in cases where risks are accepted or mitigated, it would be necessary to

- continually re-assess the risk to ensure it has not changed;
- ensure that an adequate reward is being earned;
- put contingency plans in place should an adverse event occur; and
- ensure that there are adequate reserves to protect against losses arising from an adverse event.

Figure 2.2 illustrates the “risk loop” graphically.

**Figure 2.2 The risk loop**



**Source: Olsson, 2002:17**

Olsson (2002:15-16) says that in order to manage risks effectively, it is necessary to have a clear understanding of what these risks are. Once identified, these risks need to be measured, followed by a decision on what to do with the identified risks. The options are:

- take the risk as it is (accept it),
- take action to minimise either the probability of the risk event occurring or the impact if it happen (mitigate the risk),
- do not accept the risk (avoid it).

After a decision was taken on how to deal with identified risks, the decision should be monitored and evaluated on an ongoing basis to ensure validity, where after the process starts all over again (Olsson, 2002:17).

Carey (2005) defines risk appetite at organisational level as the amount of risk exposure or potential adverse impact from an event that the company is willing to accept. Once the risk appetite threshold has been breached, risk management treatments and business controls are implemented to bring the exposure level back within the accepted range.

To conclude, risk appetite refers to the limits of risk exposure a company will be prepared to accept before management intervenes with controls and measures to manage the risk within acceptable parameters.

#### **2.8.4 The evaluation of risk**

Lucouw (2004:85-86) says that the size of the risk determines the form and level of mental activities necessary to manage it. Mathematicians, statisticians, economists and psychologists devoted a lot of time and energy over the years in an effort to quantify risk. This has resulted in major developments in probability theory, statistics and other risk management tools, but no method or model consequently provides the same

results. Inadequate information makes risk assessment very difficult because knowledge of risk is based on past experience, whilst the outcome of decisions made now, will affect the risks in the future. Due to an ever-changing future, risks are ever changing and because risk is about future uncertainties that constantly change, past experience is of little help. Lucouw (2004:88) continues to say that there are no definite rules for risk assessment because the latter is based on personal perceptions together with what you have and what you stand to lose or gain when making a decision. Risk encountered is normally classified as being high, medium or low, based on personal preferences, perceptions and any certainties it has about the future. This future is a future of probabilities and in order to take the least risk, planning for the future should be based on what is most probable, which in itself can be problematic because in many instances the number of possible probabilities are unknown.

Nobody can predict the future with certainty and therefore there will always be risk involved in every business decision. The only way to take the least risk is to plan for what is most probable, which once again is very difficult because of the variety of possibilities. This makes the evaluation and quantification of risk very difficult.

## **2.9 MAKING RISK DECISIONS**

Olsson (2002:18) propounds that decisions in business are not as easy to make as in games where the outcome is basically immediate. In business it can take a long time to find out whether the right decision was taken or not. A far greater amount of information is required to make a decision and there are many more unknowns that need to be dealt with. Own beliefs and preferences have a greater influence because objective data may not always be available and even if it is, there is always room for interpretation. In addition, many business decisions have to be made quickly without full information to avoid losing the opportunity.

A tool such as the probability/impact matrix can be used to help make decisions (Olsson, 2002:18-19). This is a simple 2 x 2 matrix that can be used to position various risks on a grid by using the dimensions of probability on the vertical axis and impact on the horizontal axis. Even if there is a lack of concrete information, it will usually be

possible to use some sort of ranking process, which can at least assist in positioning risks in roughly the right areas. Figure 2.3 illustrates this.

The matrix in Figure 2.3 can be used to decide on whether to take on new risks as well as re-assessing existing risks. As there will always be more risks that can be managed, deciding which are not material and can be ignored is an important aspect of the decision-making process.

**Figure 2.3 Risk management process**

**Probability/impact matrix**

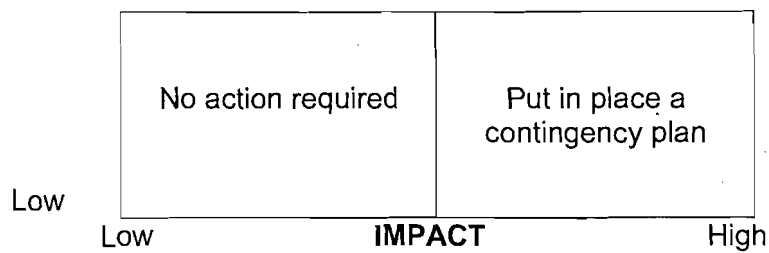
|             |      |                                    |                                     |
|-------------|------|------------------------------------|-------------------------------------|
|             |      | High                               | High                                |
| PROBABILITY | High | HIGH impact<br>LOW likelihood<br>B | HIGH impact<br>HIGH likelihood<br>A |
|             | Low  | LOW impact<br>LOW likelihood<br>D  | LOW impact<br>HIGH likelihood<br>C  |
|             |      | Low                                | High                                |
|             |      | IMPACT                             |                                     |

**Source: Olsson, 2002:19**

The use of such a tool allows organisations to assess what strategies can be used to manage risk and is illustrated in Figure 2.4.

**Figure 2.4 Probability / Impact matrix: risk strategies**

|             |      |                                               |                     |
|-------------|------|-----------------------------------------------|---------------------|
|             |      | High                                          | High                |
| PROBABILITY | High | Put in place controls<br>to minimise exposure | Priority for action |
|             |      |                                               |                     |



**Source: Olsson, 2002:20**

When making decisions on new risks it is likely, for instance, that one would seek to avoid high impact/high probability situations unless these could be satisfactorily mitigated. For existing risks one would want to ensure that similar situations have already been mitigated and that, if not, action was being taken to put in place to reduce the exposure. For high probability events but low impact, controls are needed to minimise impact. For high impact but low probability events, one will hope that they will never occur but plan for the worst.

The risk management process is all about assessing risks and seeking to improve the odds of a successful outcome. A successful outcome is defined as an opportunity gained as well as any downside impacts minimised. When decisions are made, there are a number of factors to consider in addition to utility satisfaction. These include the following (Olsson, 2002:22-24):

- Time. The types of risk that are relevant to a particular scenario will change over time and another important point to note is that time available to make a decision, might be limited. Good risk managers are able to make good decisions in a short time frame with incomplete information.
- Risk management costs.
- Rational behaviour.
- Extreme events. It cannot be ignored totally even if the odds are that it happens "once in a lifetime"; it cannot be dismissed as "low probability" tells us nothing about timing and the event can happen tomorrow.

- Authority. In a business context a committee can do decision-making where there can be a divergence of views.
- Conflict. If there is conflict between an individual's beliefs and those of senior management, decisions may be made in line with what people are expected to do rather than making the right decision.
- Creating new risks.
- Simplification. Although risk decision requires some simplification, over-simplification can be dangerous.

The conclusion can be made that although the risk management process should cater for either the possibilities of a negative or a positive outcome, a number of factors might influence the decision, for example timing, costs, conflict and authority. Therefore, the process should be a well-established and formal risk management process, appropriate for the specific business environment.

## **2.10 IDENTIFICATION OF RISK**

Olsson (2002:30) says that identifying the risk in a situation could sometimes be relatively easy; in other cases not so easy. Sometimes we become blind to the possibility that there is any risk at all, which is well illustrated by the story of the "unsinkable" Titanic. A simple conclusion can be drawn from this unfortunate happening in the past and that is that risks that are not identified are not likely to be managed.

Three cardinal steps are inherent to risk management and comprise the following three-step approach (Olsson, 2002:30):

- Identification
- Measurement
- Management

Identification is the crucial first step. Without identifying risks effectively, one will not advance beyond the starting point. This vital task of identifying risk should be approached as follows (Olsson, 2002:30):

- By simply listing all the risks that can be thought of in no particular order and then brainstorming all of them.
- By alternatively categorizing risks and assigning specialists to look at each area of risk.

The latter is more digestible as it will become an impossible task in measuring, let alone managing, an infinite range of possible risks. To categorize risks means that a large issue can be broken down into smaller chunks and then using experts to look at the specific risks that apply to a given situation, and indeed under various broad headings. Olsson (2002:32) says that this way a more systematic approach can be adopted to identify risks, which will mean that

- the probability of identifying the key risks in any situation is increased;
- the process of risk identification can be shortened through parallel working; and
- a group discussion at the end of the initial review may well result in that additional risks could come forward, while promoting an understanding of linkages between risks and also aiding in prioritising the various risks.
- Valsamakis (1996:88) propounds that although risk identification is the most important step in the risk management process, it has been generally neglected in the relevant literature. Because of the lack of relevant literature concerning this subject, he suggests that a systematised approach to risk identification may be achieved by first doing macro-identification and then micro-identification of risks.

### **2.10.1 Macro-identification**

According to Valsamakis (1996:88-92), macro-identification concerns the identification of major risk sources, the consequences of which may have a very significant negative financial impact on the organisation. In general macro-risk identification can be done by

- conducting insurance reviews;
- drawing organizational charts illustrating the different aspects of the organisation's activities and structure; and
- analysing the financial statements, as all financial losses have an adverse effect on either the balance sheet or income statement. Therefore an analysis of the organisation's financial statements can prove most useful as a starting point for risk identification.

Alijoyo (2002:4) also describes risk from a macro- and a micro- perspective and states that risk viewed from a macro-perspective are those risks resulting from uncertainty, due to external factors such as government policy, industry and domestic business environment, as well as society and international business environment.

Homaifar (2004:10) describes macro-risk as the risk of being in the market, which cannot be avoided but can be managed. All domestic and multinational corporations face macro-economic induced risk, such as general downturns in economic activity, changing political landscape, war and peace, as well as natural disasters or international terrorism, which all affect individual attitudes and expectations, which in turn causes change in consumption, investments and financing decisions. As the attitude of companies toward risk and uncertainty change, their attitude towards savings, consumption, investment and financing change over time. In times of prosperity, economic agents consume more and expand production, while in times of recession and increased uncertainty they withhold from such activities. The degree to which companies are exposed to macro-risk is entirely dependent on the nature of their business and it is believed to be proportional to the expected pay-off from their endeavour.

### 2.10.2 Micro-identification

Micro-identification aims to identify sub-risks within the major risk class, such activity being pivotal to physical risk management or risk control objectives. The following micro-identification methods can be considered (Valsamakis, 1996:93-99):

- Physical risk inspections.
- Hazard and operability studies (HAZOP). In essence, this is a critical enquiry into the operations of a plant from a hazard perspective.
- Failure mode and effect analysis (FMEA), which are to evaluate the frequency and consequences of component failures in the process and usually occur and are applicable to designated equipment.
- Fault tree analysis. This is not a means of identifying risk, but primarily a technique of analysing risk.
- Hazard indices. A hazard index is a technique, which attempts to express the degree of hazard by using a number to which others can be compared and annual changes monitored.
- Safety audits.
- Application of codes of practice. This does not only achieve an element of compliance with standards and hence risks control, but also serve as a means of identifying risks.
- Research. Where situations exist where the identification of risk cannot be readily accomplished, specialist research often on an ongoing basis is required to identify and evaluate the effects of associated risk.

What is important in the risk-identification process is the following (Valsamakis, 1996:99-100):

- It is unlikely that one particular method or technique of identification will be sufficient to identify all the risk exposures and address all the problems associated with such risks.
- Since the various methods themselves have developed in response to solving problems within particular industries, certain methods are found more useful in some industries than others.
- The process of identification is greatly assisted and enhanced by consultation with as many people outside the risk management department as possible.
- Risk identification is an ongoing process and should never be regarded as an isolated or once-off exercise.
- Finally, risk identification entails a certain degree of imagination.

Alijoyo (2002:4) states that risk viewed from a micro-perspective is the risk resulting from uncertainty due to internal elements of the institution such as people, processes, events, systems and technology.

The conclusion can be made that there is not just one particular method of risk-identification, but that different methods exist which can complement each other. It is also clear from the above that risk-identification is an ongoing process and that it should not be done in isolation.

## 2.11 THE CLASSIFICATION OF RISK

Valsamakis (1996:27) states that risks may be classified in various ways but that from a risk management perspective, the terms **risk** and **management** imply, in a sense, that only some risks inherent in corporate activity will concern this discipline.

Alijoyo (2002:4) classifies company risk in two categories:

- Financial risk, which comprises market risk, credit risk, operational risk and reputation risk.

- Non-financial risk, which is viewed from both a micro-perspective and a macro-perspective.

Doherty (1985:2) identifies the following four types of risk affecting an organisation:

- Marketing risk
- Financial risk
- Resource management risk
- Environmental risk.

Green and Serbein (1983:20) classify risks as follows:

- Property and personnel
- Marketing
- Finance
- Personnel and production
- Environment.

The King II Report on Corporate Governance (King II, Section 2, Chapter 2) states that risk assessment should address the company's exposure to at least the following:

- Physical and operational risks
- Human resource risks
- Technology risks
- Business continuity and disaster recovery
- Credit and market risks
- Compliance risks.

Fatemi and Luft (2002:29-38) summarise the above generally in the following three sources of risk:

- Strategic risk
- Business/operational risk
- Financial risk.

Knight and Pretty (2004:6) highlights the findings on research that was performed by Oxford Metrica and commissioned by Ernst & Young, into the risks that lie behind sudden shifts in shareholder value. The researchers combined both quantitative and qualitative techniques to analyse in detail the events behind such price movements for the world's 1 000 biggest listed companies. The share prices for these 1 000 companies were modelled over a five-year period to identify sudden and major movements and from this, the largest 100 positive value shifts and the largest 100 negative shifts were selected for further analyses. Although there are several ways to classify risk, the authors also suggested the following risk classification scheme resulting from the empirical research done by Oxford Metrica and Ernst & Young:

- Strategic risks
- Operational risks
- Financial risks.

## **2.12 THE MEASUREMENT OF RISK**

ICAEW (2002) says that there is no standard way in which to measure risk however, measurement is important. Companies that are better at measuring risk will be better at allocating capital internally and deciding on the most cost-effective way to manage a risk, for example, by transfer or control. Companies that develop better measures will therefore gain a competitive advantage. A variety of measures exist to manage risk which can broadly be categorised into the following (ICAEW, 2002):

- Accounting measures, such as contingencies, provisions, expected values and discounted cash flow valuations.
- Non-accounting performance measures, including external data.
- Sensitivity analysis of the effects of changes in key variables on both accounting and non-accounting measures.
- Value at risk related to accounting measures.

## **2.13 CONCLUSION**

In order to understand the importance of risk management and why it is necessary to properly disclose what risk management practices are in place in a company, this chapter deals briefly with the history of risk and what risk management entails in general. The importance, application, measurement and responsibility for risk management was also dealt with, as well as the issues that companies are facing towards implementing good risk management practices as part of their corporate governance compliance.

From the literature study it is obvious that there is not one single definition of risk and risk management. What all the definitions have in common though, is that risk is equal to uncertainty and the higher the uncertainty is, the higher the risk of doing business becomes. The target is to achieve a proper balance between risks incurred and potential returns to shareholders. Whatever the type of businesses, there will be an almost limitless number of risks to face, and to be able to manage these risks, they must first be identified. It should be a continuous and developing process, which runs throughout the organisation's strategy and the implementation of that strategy. Risk is subject to continuous change; therefore, the risk management process should include continuous monitoring, reviewing, communication and consultation.

By defining a rational process of risk-taking, the innovators of the process of understanding, measuring and weighing the consequences of risk, provided the missing

ingredient that has propelled the world into what we know today. Their discoveries about the nature of risk lie at the core of the modern market economy.

King II (2002) states as part of their disclosure requirements on risk management practices certain sources of risk that must be dealt with in the company. Different sources of key risks have been identified and for purposes of this study, the three that will be dealt with in detail are strategic risk, operational risk and financial risk. In chapter three a detail study will be done on what strategic risk management entails, as well as the importance and application of strategic risk.

## **CHAPTER 3**

### **STRATEGIC RISK MANAGEMENT**

#### **3.1 INTRODUCTION AND BACKGROUND**

In the previous chapter the responsibility for and importance and application of risk management were discussed in general. To be able to draw a conclusion on the adequacy of disclosure of risk management practices and policies in listed companies, a more in-depth study of the different sources of risk is necessary to really understand the implications of a fully integrated risk management system in the modern business environment. Corporate risk is typically regarded as equivalent to financial risk, which is wrong, because financial risk is only one element of a company's risk profile. Other risks include change risk, operational risk and unforeseeable risk. Taken altogether, they can be classed as strategic risk.

The objective of this chapter is to determine what strategic risk management entails, the importance of strategic risk management and how it is dealt with in practice. Although companies spend most of their efforts towards risk management in managing operational and financial risk, the importance of strategic risk management should not be ignored or underestimated. Risk and strategy are intertwined and a strategy can never be formulated without formulating a risk profile, nor can it be implemented without managing risks. In practice, however, it is often what is done. Many efforts are going into analysing a situation before formulating a strategy, but once the decision on what strategy to follow has been made, risk is largely forgotten.

#### **3.2 WHAT IS STRATEGIC RISK MANAGEMENT?**

Das (2001) says that in 1967, Kogan and Wallach articulated the fundamental question about the determinants of risk behaviour in terms of the relative roles of the dispositional characteristics of decision makers and the situational constraints. These issues remained unsolved, but in recent years risk and risk-taking became more important in

the study of strategic decision-making. Strategic risk behaviour constitutes a vital perspective in analyzing strategic behaviour. Das (2001) broadly defines strategic risk-taking as "... corporate strategic moves that cause returns to vary, that involve venturing into the unknown, and that may result in corporate ruin".

Knight and Pretty (2003:7) classify strategic risk into the following main areas.

- **Business environment.** This entails the risk in the market structure or business environment wherein buyers and sellers interact to buy or to sell goods and services. It includes changes in supply and demand, competitive structure and the introduction of new products and technologies.
- **Transaction.** This comprises the execution of specific activities to initiate significant change in strategic direction. It includes asset reallocation via mergers and acquisitions, spin-offs, alliances and joint ventures.
- **Investor relations.** This entails the strategy for communicating with individuals or institutions who have invested in the business, including communication and turnaround.

Rieger (2000) quotes that business leaders and decision makers should adopt a new understanding of organisational assets with an emphasis on the intangible assets that drive growth in this "New Economy", such as customer loyalty and employee satisfaction, and incorporate this understanding into a comprehensive strategic risk management process. Comprehensive risk management assist the company in achieving the competitive advantage by leading it to take certain strategic risks, with a process in place to assess and manage those risks and avoid the risks that the competition is going to take or at least the risks that are too big or just not worth the rewards. The ability to make those choices and balance the odds of success in the company's favour is a direct result of a comprehensive and integrated risk management process.

Williams (2005) states that strategic risk management is a key component of corporate governance and that risk management should be integrated into strategic plans and business activities in order to enhance the longer-term financial viability of the business.

Substantial resources are drained daily from operational budgets by exposures that disrupt the working environment, increase operating costs and reduce efficiency. Typically, resources are allocated to **reactive** indicators with little commitment or attention paid to **pro-active** risk management. It is vitally important that the focus of risk management should be moved from reactive actions to pro-active management in order to achieve long-term sustainable improvement and growth.

Fatemi and Luft (2002:31) state that strategic risk encompasses macro-factors that affect the company and the value to its shareholders. These events can be economic or political and also local or international. A common feature of these risk factors is that they are long-lived and can, therefore, affect a company's value for many years. For this reason the value consequences of strategic risk factors are long-term and are longer in duration than those attributable to business risk factors. Strategic risk management focuses on a clear strategy that is appropriate to the current and future competitive position of a business, which is properly implemented. This strategy should ensure that the risks accepted are manageable and that enough rewards will be earned for taking those risks whilst the company will be able to absorb any downsides. A strategic approach to risk management depends on identifying risks against key organizational objectives. In short, strategic risk management takes into account both the long- and short-term risk management requirements of the company and interweaves them into an integrated risk management plan of action.

To support this "future" look into risk management, Alijoyo (2002:6) states that risk assessment in internal auditing is increasingly used to identify, measure and prioritise risks so that the focus is placed on auditable areas of the largest risks. Risk-based auditing moves the focus from the past (historical operation of the internal control system) to the future, where they test the way management mitigate risks.

The conclusion can be drawn that strategic risk management is a pro-active process, which takes current and future risk management requirements into account and aligns them with the main objectives of the business. The purpose of strategic risk management is to provide the missing link between strategy and risk. Risk managers

who adopt a strategic risk management approach, must adapt their programs to meet their company's needs as there's no one single way of strategic risk management.

### **3.3 THE IMPORTANCE OF STRATEGIC RISK MANAGEMENT**

Slywotzky and Drzik (2005:2-3) state that the following benefits arise by implementing a strategic approach to risk management:

- Preparation for a major risk enables mitigation of that risk and improves company stability.
- A competitive advantage is obtained by preparing better for risks than the competition.
- It is a tool to think systematically about the future and to identify opportunities.
- Strategic threats can be turned into growth opportunities.
- Insolvency risks or earnings volatility can be avoided.
- Capital can be better utilized and costs can be reduced.
- Systems and processes can be organized to increase the company's "Risk-adjusted Return on Capital".
- Corporate reputation can be protected.
- Companies are assisted to fend off additional regulatory and legislative assaults on how the business is run.
- Corporate executives are assisted to defend themselves against legal lawsuits of the kind that have in the past been filed against executives.

Olsson (2002:101-102) states that a key element in risk management is to set a strategy in order to set the direction for the business as a whole. As stated in the previous paragraph, a clear strategy, which is properly executed, should ensure that that the risks taken are manageable. Operating without a strategy or having an

unsuitable one can spell disaster. A commonly quoted slogan reads that if you do not know where you are going then any path will do. Where clarity exists, resources do not get wasted on pursuing opportunities, which do not fit with the business strategy. A macro-level example would be not acquiring a company even where the price was considered attractive because it did not fit into the current business plan. At a micro-level an example would be turning away a specific piece of business for the same reasons, e.g. the customer was too far away or the order too complex. It is necessary to know where the business is today in order to be able to set clear goals which should be well communicated. It may sound strange that management would not know where its business is today, but quality data like knowing the size of the market the company is operating in, or what the company's share of that market is, is not always easily obtainable.

In the research referred to in par. 2.11 that is highlighted by Knight and Pretty (2004:8), they found that the vast majority of both positive (59%) and negative (72%) value shifts originated in strategic issues, rather than from operational or financial issues. The dominance of strategic risk in driving the negative value shifts is not surprising, as strategic risk cannot be engineered away, nor can it be hedged or insured via an instrument for which a commercial market exists. Strategic risk therefore, cannot be delegated easily by the Chief Executive Officer to any department and remains the Board of director's priority risk issue. The strategic roots of the positive value shifts lie mainly in transactional events in which managers attempt to take a step-wise jump in financial performance and reposition their companies strategically. This main strategic driver of positive value shifts is less important in producing sudden falls in value. Across the Top 100 portfolio of negative value shifts, the main strategic driver is the failure to anticipate rapid market changes such as those that are technological or related to the industry's competitive structure. An extensive analysis of the underlying events surrounding the value shifts revealed the following primary value drivers behind the positive shifts:(Knight & Pretty, 2004:9)

- Establishment of strategic alliances.
- Investment in research and innovation.

- Effective capital management.

Those behind the negative shifts were the following: (Knight & Pretty, 2004:9).

- Failure to adapt.
- Customer mismanagement.
- Poor investor relations.

Also clear from the research results is the potential for poor investor relations to impact negatively and significantly on a company's share price. It appears that investors penalize poor investor relations rather than reward positive investor relations. A successful investor's relation strategy can be translated into "not making mistakes" in communication with investors and analysts. The researchers ensured that the value shifts were sustainable by extending the analysis from the initial one month to one calendar year for each company and the finding was, that on average the initial sudden shifts were sustainable over the year and that the value shifts were not simply transitory pricing adjustments.

From the above the conclusion can be made that strategic risk management is of utmost importance for the survival of a business as the vast majority of reasons for shifts in shareholder value was strategic in nature. It is so important that it will not be wise to delegate this to any other department of the company, but it should remain firmly on the Board of director's agenda as a top priority and it is the CEO's responsibility to provide leadership for managing strategic risk actively.

Frost *et al*, (2001:62) states that the focus on internal control is too narrow. The balancing of risk and reward, rather than the creation of more internal bureaucracy, should be the prime consideration of establishing a risk management framework. Traditional risk management approaches do not address the need to manage risk in a forward-looking proactive way across the organisation. Internal audit, for example, traditionally focuses on financial risk rather than on general business and operational factors. Internal audit is often viewed negatively and is perceived to have a policing role rather than playing a positive role in order to improve the status of risk management

within the organisation. High-level controls are also means to mitigate risk, but these are often applied in a reactionary way, rather than facilitating a forward-looking approach, in other words, a strategic approach.

Anson and Ma (2003:22) says that in today's increasingly complex business environment, where new and more complicated risks can have a disastrous impact on shareholder value, companies must implement and adhere to good corporate governance practices, as the ones set out in King II, which includes effective oversight of risk management. After the collapse of Enron and other corporate scandals, many Board of directors have recognized the need for improvements to their current system of governance. Some Board of directors have employed independent consultants to assist them in reviewing risk management policies and operational practices. Others have empowered the internal auditors or the chief risk officer to perform rigorous self-assessments of risk management practices. Effective Board of directors insisted on systematic efforts to identify and address recurring and newly emerging risks and also on formulating a risk strategy to pro-actively manage risks. From this it is clear, that risk management is not merely a defensive action, but a key element in strategic planning and a tool for creating and sustaining shareholder value.

Wilson-Grau (2003) states that one innovation in improving professional competence is the use of strategic planning, which must be accompanied by on-going strategic thinking at all organizational levels. New strategies must constantly be generated in order to achieve results in line with the company's fundamental purpose. Success of the business will depend on strategic management by continuously integrating strategic thinking and planning.

Batten and Fetherston (2002:3) quote that a well thought-out risk management strategy should be an integral core of every business and not just a fire brigade in time of emergency. Emblemvag (2003) says that strategic risk management provides the missing link between strategy and risk. The conclusion can be made that although companies spend most of their efforts towards risk management in managing operational and financial risk, the importance of strategic risk management should not be underestimated.

A related positive benefit is that the adoption of frameworks from a strategic standpoint can enhance companies' external image. Publicizing high standards of risk management can confer a competitive advantage. There are already signs of improved dialogue between shareholders and corporations that have adopted risk-based approaches to strategy and operations (Frost *et al*, 2001:63).

From the above it becomes evident that the importance of strategic risk management are often underestimated and that valuable resources are often wasted on seeking after opportunities, which do not support the business strategy.

### **3.4 THE IMPLEMENTATION OF THE STRATEGIC RISK MANAGEMENT PROCESS**

In the previous paragraph it was ascertained that strategic risk management is of utmost importance for the long-term survival of a company, but that it can be very difficult to implement. As said before, strategic risk management should be done at Board of director's level with the CEO as the driver.

Anson and Ma (2003:24) say that strategic risk couldn't be managed through the financial markets because a company's central business model and its competitive environment determine these risks. These are the risks that a company's Board of directors is primarily responsible for, for e.g. decisions about the operating leverage, business lines to pursue and strategic acquisitions to be done. The Board of directors should be aware of the interaction of strategic plans, capital structure and cash flow volatility and should adopt an integrated risk management program that best serves the company's capital structure, enhancing shareholder wealth by mixing financial insurance and other risk management products that minimize the weighted average cost of capital. The Board of directors must ensure that a trustworthy process exists to identify significant risks to corporate business objectives. This process should establish accountability and compliance in risk management, ensure updated written risk management policies and procedures, and give shareholders certainty that a sound internal control system is in place to manage risks.

Lenckus (2004:11) quotes a group of strategic risk management experts in the United States that said "...the first thing a risk manager should do to implement a strategic risk management system, is to identify his natural partners within the organization, i.e. the heads of the legal, auditing and disaster recovery departments". Once the team has been established, the members should begin to evaluate **all** the organizational risks, not just the property or casualty risks. Once the risks have been identified, the risk manager must determine whether the company has an established risk tolerance for those identified risks and assess whether the risk is within the company's risk tolerance parameters. To develop a plan for managing those risks, the risk manager should collect as much detail about them from inside as well as from outside the company. The risk manager should also evaluate whether information about a company's risks is being reported and communicated throughout the organization so as to comply with proper Corporate Governance principles. A strategic risk assessment report should be prepared in which the "risk owner" is identified, or that contains details about the section of the company bearing that particular risk, as well as details of how different risks link with other. The report should also assess the probability of the risk occurring, how the company is currently handling the exposure, and how severe the impact of occurrence could be to determine which risks should be addressed first. Risk managers should summarize their findings in a risk map, on which the severity and frequency of organizational risks are plotted, in reporting to top management in order to allow them to instantly identify and prioritize key risks. This risk map should include a quantification of the company's risks and notes whether these values are acceptable. From there, the risk strategy is developed.

To set goals are not that difficult but it will only be meaningful if it is possible to determine whether the set goals are reached (Olsson, 2002:102). How aggressive those goals are, will have a direct bearing on the risk associated with the strategy a company adopts. Goals can be simple financial targets or a wider range of measures, like for e.g. the balanced scorecard approach that ensures that financial achievements are not made at the cost of other areas of corporate responsibility such as staff and customers. Measurable goals for a company might include one or more of the following: (Olsson, 2002:102).

- Achieving a target level of profits in absolute terms.
- Achieving a target minimum percentage return on equity.
- Being the market leader.
- Seeing an increase in share price bigger than that of the market or the competitors.  
Seeing a steady growth in profits.
- Being recognized as a good employer or innovative company, etc.
- Having the highest level of customer satisfaction in the industry.

The further the goals are from the current position and the shorter the time-frame set to achieve them, the more aggressive the strategy should be in order to ensure that they are achieved. Before taking a stand on what risk strategy to adopt, the risk appetite of the Board of directors should be considered; in other words, what level of risk is the Board of directors prepared to accept for the company. It is important that an appropriate risk management framework supports the risk management strategy. Elements of a risk management framework include the following: (Olsson, 2002:106-107)

- The degree to which risk management is centralized or decentralized
- The policies set for the management of risk
- The processes for making decisions
- The way in which authority is delegated and the application thereof monitored
- Technology used to record and analyze data, including risk models
- Reporting mechanisms
- The committee or other processes used for reviewing risk
- The audit process.

Olsson says that if the organisational strategy is sound and clear and the various elements of the risk management framework are in place, it will help the efficiency of this process, e.g. it would be easy to decline risks which (Olsson, 2002:126)

- do not fit the strategy;
- are outside risk concentration limits or other policy parameters; and
- cannot be adequately mitigated.

Rieger (2000) states that the difference between successful and unsuccessful risk management is the difference between trying to implement controls reactively, as opposed to developing a strategic risk management focus. Companies that strive for excellence recognize that all sections of business are interconnected and because of complex combinations of people, processes, knowledge and technology, only an all-embracing perspective will be appropriate. To build this perspective, a company must have a "blueprint" for comprehensive risk management. Before commencing with this comprehensive approach to risk management, the potential results for the company should be understood. As this approach will link risk management to overall company objectives and strategies, these objectives and strategies should be clearly defined.

Rieger (2000) further states that comprehensive business risk management could facilitate effective communication regarding risks between management, employees, suppliers and customers. It could also create methods for uniform risk measurement. Both dynamic communication and uniform measurement are fundamental to effective risk management and finally, all-embracing risk management could promote a proactive and forward thinking business culture, which will ensure continuous risk assessment and improvement. Rieger listed six strategies (the blueprint) for comprehensive business risk management, which could also be referred to as the strategic risk management cycle.

### **3.5 THE STRATEGIC RISK MANAGEMENT CYCLE**

According to Rieger (2000) the “blueprint”, as mentioned in the previous paragraph, for comprehensive business risk management, exists of the following six steps:

- Establish a risk management infrastructure. Appoint an owner of the risk management process and establish the relationship between the risk management and risk monitoring function. Risk objectives with respect to strategy and significant exposures need to be established and risks assessed from the viewpoint of identifying, prioritizing, sourcing and measuring their total impact on the business.
- Assess the business risk. A conceptual framework should be created that identifies the full range of risks in order to commence with risk assessments.
- Develop business risk management strategies. The risk management strategy should be linked directly to the key strategies of the company.
- Develop and implement risk management techniques. Using the comprehensive approach, a company should implement consistent risk management techniques for all main risks.
- Measure and monitor the risk management process performance – This will usually be the responsibility of the internal audit function.
- Improve the business risk management process, as continuous improvement and adaptability are essential to lasting success.

Slywotzky and Drzik (2005:2) describe the following steps in the strategic risk management process:

- Identify and assess risks for severity, probability, timing, and likelihood over time.
- Create a strategic risk map.
- Quantify the risks where possible.

- Identify potential positive consequences of risks if the company turns the risk into an opportunity.
- Develop risk mitigation action plans.
- Adjust capital allocation and capital structure decisions.

LJMU (2003) says that there is a continuous cycle to risk management and that risk management is a process and not an end in itself. Risk implications are often expressed in numerical and financial terms, which is a very narrow interpretation of risk implications. Risk should strategically be assessed in terms of governance, management, quality and reputation, as well as resources and finance. LMJU (2005) illustrates the strategic risk management cycle in Figure 3.1.

HM Treasury describes the elements of the strategic risk management cycle as follows (HM Treasury, 2001:3):

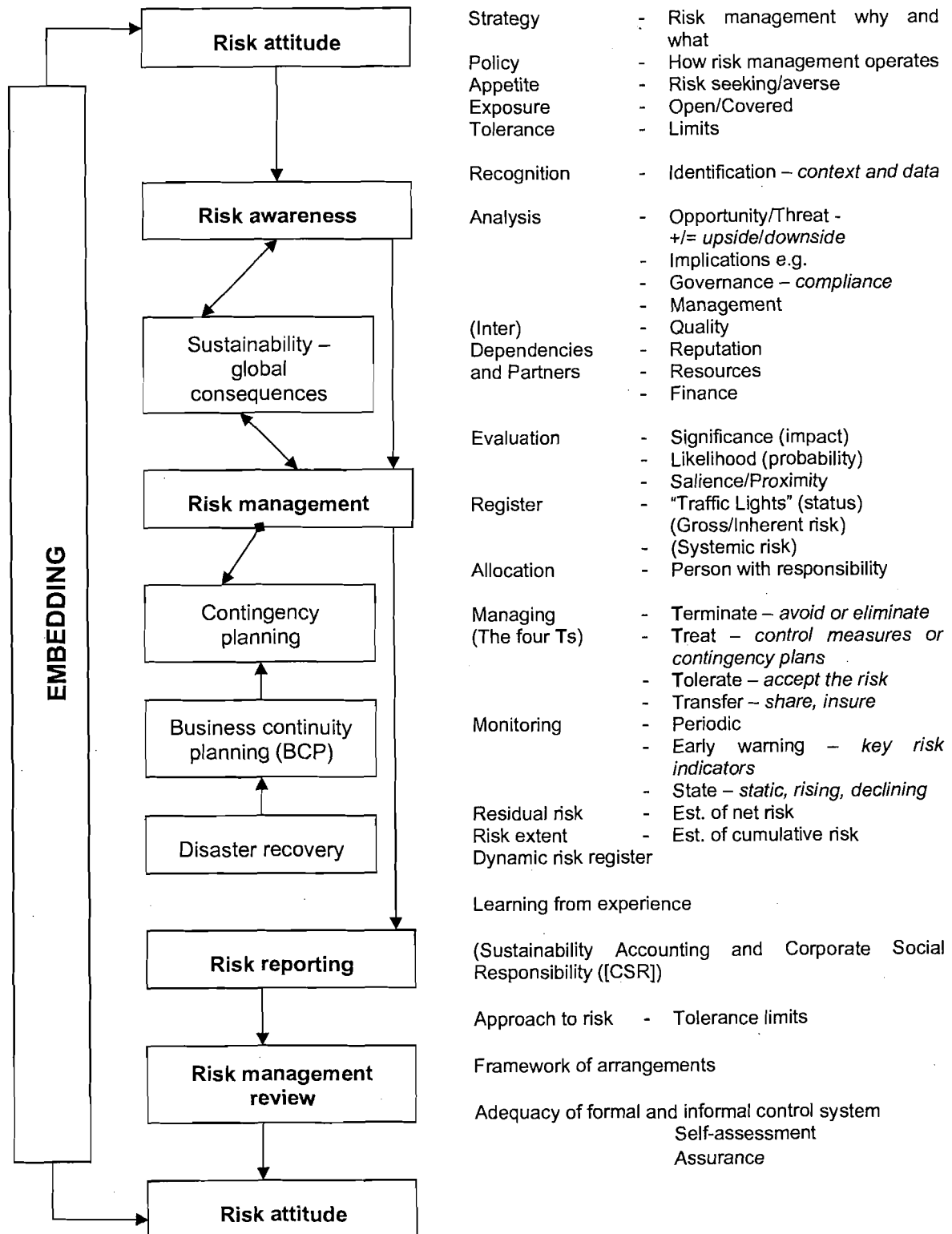
### **3.5.1 Identify the risks and define a framework**

There are three important principles for analyzing risk:

- Adopt a consistent approach throughout the company.
- Ensure that there is a clear structure to the process so as to ensure that each element of risk identification fits into an overall structure.
- Establish a framework, approved at senior level, within which risk is to be identified.

As stated before, a strategic approach to risk management depends on identifying risks against key organizational objectives. Organizations that have already built risk frameworks in this way, have found that it is most practical to confine the objectives at this level to a small number of, if possible not exceeding ten. Risks relevant to these objectives are then considered and evaluated, allowing a small number of key risks to be identified (HM Treasury, 2001:4).

**Figure 3.1 Risk management cycle**



Source: LJMU , 2005

### **3.5.1.1 Risk identification tools**

It is necessary to adopt an appropriate tool for the identification of risk and two of the most commonly used tools, are to commission a risk review and to do risk self-assessment. To commission a risk review, a designated team is established to consider all the operations and activities of the company in relation to its objectives and to identify the associated risks. The risk self-assessment is a bottom-up approach by which each level of the company is invited to review its activities and to feed upwards its findings of the risks faced. This can be done through a documentation approach or through a facilitated workshop approach. These approaches are not mutually exclusive and a combination of top-down and bottom-up inputs to the risk assessment process is desirable (HM Treasury, 2001:4).

### **3.5.1.2 Categories of risk**

Different types of risk, which may not be easily comparable, arise. However, a critical stage in any attempt to evaluate risks is to identify the range of different types of risk involved (HM Treasury, 2001:4).

### **3.5.1.3 Assign ownership**

The importance of identifying key risks is not just to identify the most important areas to which resources should be allocated, but also to allocate responsibility for the management of these risks. The most effective risk management develops when ownership of key risks is allocated to appropriate senior officials in order to ensure that responsibility and authority for implementing control actions are clear. An important aspect of this is that risk ownership should be a coordinated action and there are various ways to do this:

- The designated risk owners can form a "Risk Management Committee".
- Where there is a Board of directors structure to senior management, risk management should be on the Board of director's agenda on a regular basis.

- Where there is a strong representation of senior managers on the audit committee, risk ownership can be allocated to executive members of the audit committee.

The important aspect is not the detail of the process, but the principle that a senior structure of risk ownership is established (HM Treasury, 2001:6).

### **3.5.2 Evaluate the risks**

It is essential to not only identify the risks that exist for the business, but also to evaluate the significance of the different risks. A consistent identification tool has to operate within the framework in order to do proper risk evaluation. A framework for categorizing risks should be developed so as to prioritize them and a model should be applied to compare the results after the evaluation of individual risks at various levels (HM Treasury, 2001:7).

### **3.5.3 Assess the risk appetite of the business**

As discussed in chapter two, the risk appetite of the business is the amount of risk, which the company is prepared to take before it judges action to be necessary. Even risk as an opportunity is encircled by threats, which has the ability to limit the exploring of the opportunity and for which an appetite in relation to the opportunity benefit has to be assessed. "Value for money" decisions must be made because of limited risk control resources, and these decisions can be taken only after the amount of risk that can be tolerated, was considered. Most companies will not have a single risk appetite because the tolerable extent of risk will vary according to the perceived importance of specific risks. The most important issue is that it is unlikely that any specific risk will need to be absolutely escaped from, except for the most extreme risks (HM Treasury, 2001:8).

### **3.5.4 Identify suitable responses to risk**

Responses to risk can be allocated to four response categories:

- Transfer the risk either by taking out insurance or by paying a third party to take the risk in another way.

- If the cost of taking action against the risk exceeds the potential benefit, the response can be to tolerate the risk.
- The greater number of risks will be treated, not necessarily to obviate the risk but to contain the risk to an acceptable level. The King II report on Corporate Governance also suggests that companies should not see total avoidance of risk as the objective, but that risk must be managed to an acceptable level.
- Some risks can be treated only to acceptable levels if a certain activity is totally terminated.

“Control” is also a response to risk, as it is intended to contain uncertainty of identified outcomes. Therefore “internal control” is a very important management tool and can be classified in detective controls, directive controls, preventive controls and corrective controls. In designing control, it is important that the control put in place is proportional to the risk, as it is normally sufficient to design control to give a reasonable and not an absolute assurance that any likelihood of a loss will fall within the risk appetite of the company. It can be concluded that the objective of control is to contain risk rather than to avoid it (HM Treasury, 2001:9).

### **3.5.5 Gain assurance about the effectiveness of the risk management framework**

After developing a risk management framework and implementing a control response, it is important to gain assurance about the effectiveness of these actions. This should be done by firstly implementing a proper reporting system in order to enable management to report upwards about how risk management is being effected. Just as important is to have an internal audit department who can assist with the development of a strategic risk management process for the company, but more important, to audit the implemented controls and processes to provide the Board of directors with reasonable assurance of the risk management process. It is important that the internal audit function should be independent in order to give an independent assurance about the way risk is controlled and it should also be stressed, that they do not present a substitute for management ownership of risk (HM Treasury, 2001:12).

Frost *et al.* (2001:61) state that very real dangers exist in not formalising a framework. At worst, organisations remain far more vulnerable to the impact of one risk causing far more damage than it should. At best, poor integration of risk within a company means key risk areas may be missed out. Integrated risk management requires a framework where a number of different factors can be appraised at the same time. These factors include strategy, policies, organisation, culture, management processes and supporting infrastructure.

### **3.5.6 Embed and review**

The risk environment of a company is constantly changing, and priorities of objectives and the consequent importance of risk, will shift and change. Risk models should be continuously revisited and reconsidered in order to have assurance that the risk profile is still valid. Strategic risk management demands that the awareness and responsibility for risk issues is part of the objectives of the business. Risk management should be an integral part of the business and should not be separated from the day-to-day activities of the company. The principle of Corporate Governance requirements is to ensure that the risk and control structure embedded into the organization is subjected to review by senior management. A key tool in assisting to keep the risk strategy up to date is the use of continuous "Control and Risk Self Assessment" procedures. This entails a technique by which each level of the company identifies and evaluates the risks associated with its activities so as to inform a strategic review (HM Treasury, 2001:13).

## **3.6 STRATEGIC RISK MANAGEMENT IN PRACTICE**

Hunter (2002:23) says that since 1990, major banking and financial crises have occurred in many countries throughout the world, e.g. in Latin America in 1994-1995, in Russia and Brazil in 1998, and in East-Asia in 1997-1998, with huge costs to both the individual countries experiencing the crises as well as to other countries. The 6 key lessons learned from these failures, were of a strategic nature and can be summarised as follows (Hunter, 2002: 24-26):

- Not one country or business should consider itself to be immune against financial crises.

- The cost of resolving a crisis once it has occurred is almost certain to be very high.
- All crises are different and all crises are the same. The list of common problems suggests lessons in and of themselves.
- Corruption and lawlessness are the silent killers.
- A financial crisis is not over once financial markets stabilise.
- Modern finance (as a discipline) can be very useful in the design of economic institutions and policies, just like macroeconomics can. Understanding such financial concepts such as market microstructure and option value proved to be just as important in forecasting and mitigating crises, as has been a sound understanding of modern macroeconomics.

King II recommends that the Board of directors should set a risk strategy in liaison with the executive directors and senior management, which should be clearly communicated to all employees in order to ensure that it is incorporated into the language and culture of the company.

The conclusion can be made that although the principles regarding strategic risk management should be similar in every business, different companies consider different areas of risk in their business to be of a strategic nature. The following classical examples of what some of the large companies in South Africa consider being strategic risks were obtained from the risk management reports in the annual reports of the companies that were selected for the empirical study:

- Potential capital gains tax liability on certain long-term investments.
- Lost business opportunities because of Competition Tribunal's rulings.
- Anti-dumping regulations.
- Lack of proper contingency planning.

- Dependence on large items of plant.
- Low cost/low quality producers can undercut prices.
- Product liability risks causing financial and operational loss.
- Dependence of sales of semi-finished products that can result in loss of opportunities to sell value-added products.
- Inability to comply with stricter environmental laws.
- Lack of ability to forecast and monitor economic, political and industrial trends.
- Currency fluctuations.
- Lack of corporate alignment and effective communication within senior management around strategic intent of the business.
- Skill gap/loss of key personnel.
- Dependence on key suppliers.

Risk management is a central part of any organisation's strategic management and as can be seen from the above examples, it could have an effect on the current as well as the future performance of the company. For this reason, risk management must be integrated into the culture of the organisation with effective policies and programmes that are led by the most senior management of the company. It should be part of the organisation through the strategy and budget processes and should translate strategy into operational objectives.

### **3.7 CONCLUSION**

The objective of this chapter was to determine what strategic risk management entails and how important strategic risk management is in achieving the objectives of the business. Companies spend most of their efforts towards risk management in managing operational and financial risk and totally underestimate the importance of strategic risk

management. As can be seen from the above literature study risk cannot be separated from strategy because they are interdependent. Strategy cannot be formulated or implemented without formulating a risk profile. In practice, however, it is often what is done.

The conclusion can be drawn that strategic risk management counters downside risks by reducing the probability of occurrence and the magnitude of losses and take advantage of upside risks by searching for opportunities in order to more efficiently achieve the company's objectives, as well as developing plans to act on these opportunities when they arise in future. Strategic risk management is a pro-active process, which takes current and future risk management requirements into account and put them in line with the main objectives of the business. For this reason operational and financial risk management can be exercised with more success as strategic risk management also plans for the future and not only for the short-term.

In this chapter it became obvious that strategic risk management should set the trend in which the company manages its operational and financial risks. A detail study of these risks is necessary to understand the importance of this in the modern business environment. In the next chapter an in-depth study will be done on what operational risk management entails and what risks are considered to be operational risks. The importance and the benefits of operational risk management, as well as how to implement an operational risk management process will also be dealt with.

## **CHAPTER 4**

### **OPERATIONAL RISK MANAGEMENT**

#### **4.1 INTRODUCTION**

King II requires that companies specifically address certain risks and operational risk is one of them. As this study will also focus on the disclosure of operational risk management policies, it is necessary to do a detail investigation into what operational risk management entails and what types of risks are classified as operational risks. The importance and the benefits of operational risk management, as well as how to implement an operational risk management process will also be dealt with in this chapter.

As seen in the previous chapter, operational risk management should not remain apart from strategic considerations but should be aligned with forward-looking growth strategies for achieving competitive advantage. Operational risk must be managed within the context of an enterprise view of risk. The aim of operational risk management is to ensure that the different exposures to operational risk faced by an organisation, are identified and addressed in the most efficient way possible. The achievement of this goal is dependent on management taking positive actions to consider what steps should be taken to optimise an organisation's exposure to operational risk to maximise shareholder value.

In this study it became evident that different authors classified operational risks differently, but they all have in common that operational risk refers to the risk involved in making losses because of insufficient internal processes, people or systems, or from external events.

#### **4.2 WHAT ARE OPERATIONAL RISK AND OPERATIONAL RISK MANAGEMENT?**

Before investigating the types of operational risks that should be dealt with in disclosing

risk management practices, it should first be determined what operational risk and operational risk management means. As stated before, there are different definitions from different authors but they all have the same meaning. A few of the definitions by the different authors will be discussed to get a better understanding of the broad range of risks that are covered under the umbrella of operational risk.

Fatemi and Luft (2002:30) classify operational risk as the risks inherent in the firm's operations. These types of risks can be technological, distributional or informational. Firms will assume these risks to exploit a competitive advantage in technology, distribution or information. What is important is that most of these risks can be controlled through management's internal operating decisions.

Crawford and Hoppe (2005) define operational risk as the hazards and uncertainties arising from information technology, infrastructure, human resources and fraud, business disruption, legal liability and many similar issues.

Knight and Pretty (2003:7) classify it as a combination of resources (people, skills, methods, equipment and materials) and the work environment, which results in a desired output. This includes product and delivery, marketing and strategy, human resources, health and safety, supplier and customer management, and research and development.

Olsson (2002:46) defines operational risk as the risk of loss due to actions on or by people, processes, infrastructure or technology, which have an operational impact, including fraudulent activities. Although this is one of the biggest risk areas, most companies do not traditionally manage it in a much-organised way. Only in the last few years have companies introduced operational risk departments. There was a tendency to consider operational risk as something, which is closely associated with operations, but this is now changing partly as a result of the faster pace of change but also due to increased awareness. Operational risks can be grouped in the following broad sub-risk types (Olsson, 2002:46-47):

- Staff. Ensuring that there are sufficient people of the right quality to undertake the tasks required from them. This includes senior management, through to the most

junior staff level.

- Technology. The number and scale of technology risks increase all the time and management should ensure that the required systems are in place to support the company's activities.
- Fraud. Detail consideration should be given on methods to protect the business against the possibility of fraud.
- External dependencies. Businesses are increasingly reliant on infrastructure providers like telephones, transport systems and electricity suppliers and processes should be in place to protect the company against possible disruption if any of these fail.
- Processes/procedures. Clear instructions on processes should be laid down to prevent incorrect actions being taken.
- Outsourcing. Originally this was seen as a cure for many problems in the modern tendency of "returning to core business". Lately there is an increasing concern over the loss of control, which may result from outsourcing.

Frost *et al.* quote that the scope of operational risk management at the highest level could be broken down into the following two main components (Frost *et al*, 2001:2):

- Operational integrity – the adequacy of operational controls and corporate governance
- Service delivery – the organisation's ability to perform business processes on an ongoing basis.

Operational integrity generally comprised the management of operational risks originating from inappropriate cultural environments, absence of management supervision, fraud, poor health and safety and environmental compliance failures, errors, physical disasters, reputational risks and poor internal controls. Operational delivery covers the following (Frost *et al*, 2001:2):

- Capacity management
- Human resources management
- Supplier management
- Service management
- Sourcing management
- Project management
- Crisis management.

A typical operational risk management programme that focuses on helping the company meets operational integrity as well as delivery objectives, is likely to include a wide range of activities, including the following (Frost *et al*, 2001:5):

- Defining the extent of operational risk management (besides other risk management functions like credit and market risk management).
- Defining and putting in place the necessary roles and responsibilities and reporting structure.
- Identifying categories of risk, prioritizing them and map them against business processes to understand their effect.
- Working with businesses to allocate ownership for managing each risk.
- Assisting businesses to identify and implement the necessary controls and
- Implementing the required measures, methods and tools.

Norton (2005) states that operational risk is the risk of loss by inadequate or failed processes, people, and systems and from external events. The risks that blew up in the faces of Board of directors at companies such as Worldcom, Enron and Parmalat, all come under the general category of operational risk It can include the following:

- Unscrupulous managers.
- Business interruptions caused by terrorism, war or natural disaster.
- Supply-chain breakdowns.
- Changing technology.
- Increased competition.

Norton (2005) describes the different contributors of operational risk as follows:

- **People.** The risk in terms of employee fraud or misdeed, unauthorised activity, loss/lack of personnel and the employment laws.
- **Process.** That is the risks inherent to payment/settlement, delivery/selling, documentation/contract, valuation/pricing, internal/external reporting and compliance.
- **Systems.** That is the risks in terms of technology investment, development, access, capacity, failures and security breach.
- **External events.** The risks in respect of legal liability, criminal activities, outsourcing, suppliers/insourcing, disasters/infrastructure and regulatory or political risks.

From the above one can conclude that operational risk can be seen as an event or a condition that will have a positive or negative impact on a company's objectives if it occurs. The common characteristics are that it represents a future event, it has a probability of occurring, and the consequences of the risk are unplanned for. The future events can be categorised as opportunity-focused (positive risk) if their consequences are favourable, or as threat-focused (negative risk) if their consequences are unfavourable.

### 4.3 CONSEQUENCES OF NOT MANAGING OPERATIONAL RISK PROPERLY

As can be seen in large company failures in recent years, the consequences of not managing operational risk can be fatal. The following statement in the final report of the Universal Risk Project (2002) can serve as a warning to all companies: "If you can't afford to mitigate the risk now, be absolutely sure that you can afford to resolve the problem later when it happens"

Crawford and Hoppe (2005) quote that the growing number of business failures, increasing complexity of business and mounting regulatory pressure is renewing visibility of these risks under the banner of "operational risk". This refocuses the position and status of these risks for management decision-making purposes. This refocusing was emphasised by the events of 11 September 2001, which provided a fresh appreciation of the innumerable contingencies and interdependencies that make the modern economy work and also pointed out that most operational vulnerability is due to the inability to understand and adapt to changing risk contexts.

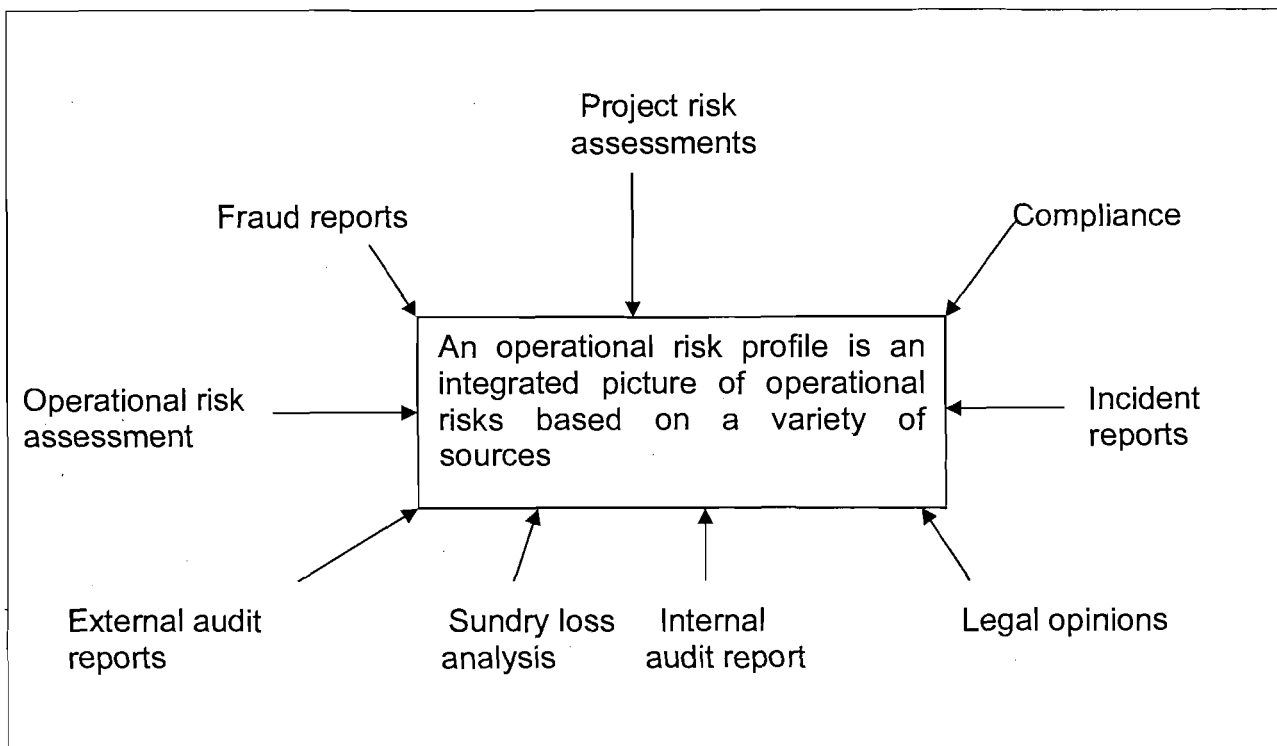
The result of not managing operational risk properly goes further than financial losses. What companies fear most is a loss of reputation among the public at large and their shareholders and this is what can happen if there is a failure at the level of operational continuity. If a problem like this occurs, companies could find it hard to recover damage to market share or brand value or to regain a competitive advantage after an unexpected shock. An effective way of investigating operational risks is by looking at the following consequences of events upsetting specific processes (Frost *et al*, 2001:6-7):

- Direct financial losses, which originates from not meeting obligations (e.g. penalty interest payments).
- Direct financial losses because of lesser income, for example from loss of sales, transaction fees, commission.
- Statutory or regulatory penalties ranging from the disapproval to the recalling of licences.

- Opportunity costs originating from negative publicity, being unable to trade or because of processing delays, backlogs, and poor customer service delivery or poor product or service quality.

One of the returns from an effective risk management approach is an operational risk profile, as illustrated in Figure 4.1.

**Figure 4.1 Operational risk profile**



Source: Frost *et al.*, 2001:7

#### **4.4 THE IMPORTANCE OF OPERATIONAL RISK MANAGEMENT**

The annual report of a company serves as the communication channel to its shareholders. Operational risk is on shareholders' minds and for this reason it is important to look at the significance of operational risk management before investigating how companies disclose their practices and policies there-on. Seeing that shareholders put a lot of focus on operational risk, the importance of this should not be underestimated and the annual report should reflect proper disclosure on this to set the

shareholders at ease about the risks involved in investing in the specific company and how management deals with it.

Higgins (2003) reported that at an event of investors in the USA, the topics that were discussed included the state of the economy and the stock market and corporate governance was fuelling the fire for much of the debate on what was going to fix the current sentiment of investors and it can be argued that it will be the same for South African investors. The current state of mind is one of optimism but the speaker on the event, who is a well-educated economist, had one warning that can change this optimism and that was the risk of more corporate official misconduct. He referred to an article published in the Journal of Lending & Credit Risk Management (March 2002), where it was stated that operational risk is not new. What is new, is the idea that operational risk management is a discipline with its own management structure, tools and processes, much like credit risk or market risk.

A high-profile example of an organisation that suffered catastrophic failure because of poor operational risk management is Barings Bank, which collapsed as a result of the massive losses caused by Nick Leeson and his illegal derivatives trading activities. This type of occurrence has resulted in operational risk management being taken more seriously.

Chorafas (2002:64) quotes that most of the literature on operational risk still deals with issues encountered way down the "food chain". Attacking the operational challenges that exist at senior management level requires

- Board of directors-level policies;
- first-class human resources;
- very efficient internal control; and
- an inviolable code of ethics.

One of the merits of a broader perspective of operational risk is that it addresses in a more accurate way today's global environment in which all sorts of business risks

multiply at an alarming rate. He sees the top four operational risk factors to be the following (Chorafas, 2002:65):

- Mismanagement weaknesses
- Organisational weaknesses
- Defective execution methods
- Wanting professional skills.

At the centre of the above four risk factors is the Board of directors and chief executive officer's accountability. Based on the responses received in his research, the broader list of operational risks is identified as follows (Chorafas, 2002:65-66):

- Mismanagement at all levels, starting with the Board of directors and the CEO
- Quality of professional personnel and their skills
- Organisation, including separation of responsibilities
- Execution risk
- Legal risk and compliance to regulations
- Documentation – a cross between operational and legal risk
- Payments and settlements
- Information technology risks
- Security, including ways and means to unearth traders and other fraudulent people – internal or external
- Infrastructure e.g. power, telecom, water
- Risks associated with less well-known factors, present and future, because of novelty and globalisation.

According to Frost *et al* (2001:8-12) the rapid speed of change caused the exposure to operational risks in most industries to increase. They say that some of the drivers of change that have increased exposure to operational risk are the following:

#### **4.4.1 Globalisation**

Because of a more competitive economic climate, companies are finding it very difficult to be over-confident about their business strengths, and companies with traditional manufacturing or supply chain processes are finding it more difficult to compete. This result in many companies moving away from defensive attitudes and activities to find new ways of gaining a competitive advantage that is sustainable in the longer term. Often these result in seeking rapid growth in new markets or regions, stretching existing management resources and putting bigger pressure on operational performance.

#### **4.4.2 Growth of e-business**

Complex and often high-risk operational processes and systems are in the centre of sophisticated "information age" economies throughout the world. Although efficiency has increased because of the introduction of new technologies, this resulted in new complicated business interdependencies. The impact of operational failure has increased and risk has been concentrated, due to the increasing reliance on new technology. This can lead to the failure of whole operations at the macro-level and because of the increase in the volume of transactions and the processing speed, the rate at which errors are processed and their potential effect, is also increasing.

#### **4.4.3 Competition**

It is a known fact that consumers and businesses expect high levels of service quality at low cost and no delays. Failure to comply with this can quickly result in a loss of market share.

#### **4.4.4 Increased regulation**

New laws and regulations come into effect regularly for e.g. health and safety regulations, environmental regulations, etc. A prominent example of this is the steel

giant, the former Iscor (now Mittal steel), who faces serious problems if they do not comply with environmental regulations within the near future. Many regulatory departments adopt a stricter approach nowadays and are more inclined to fine companies for compliance breaches.

#### **4.4.5 Increased awareness of “uninsurable” risk exposures**

Tangible risks such as chemical explosions and flood damage can be insured either by self-insurance or insurance with an insurance company who is willing to cover major physical disasters.

The dangerous risks are the intangible ones, like risks that can damage a company's reputation in the market place. This can be more damaging because market share lost might never be recovered. Because of the nature of these risks, it is harder to find insurance cover for it and the increasing awareness of these types of risks have meant operational continuity is more critical.

#### **4.4.6 Increased level of litigation**

The increased threat of litigation in the product liability area and relatively new exposures such as those associated with sexual equality and environmental issues makes the chances of costly court cases and the resultant damage to reputation a reality to take note of.

#### **4.4.7 Greater focus on corporate accountability and director's liability issues**

Board of directors rooms around the world have been influenced by the corporate governance bandwagon over the last decade. This is an attempt to ensure that companies are run in the interest of their stakeholders. At the same time new legislation has enforced an urgent re-assessment of enterprise-wide risk management practice, for e.g. the changes to corporate manslaughter legislation in the UK as well as in South Africa, where Board of directors will be held responsible for injury and death caused to the public through negligence. Major disasters that have caused the death of members of the public, like the “Herald of free enterprises” ferry disaster in 1987, this legislation could be expected to encourage Board of directors to see to it themselves

that their companies have adequate risk management processes.

#### **4.4.8 Managing public expectations**

The level of public interest in environmental and social issues is growing and this can lead to consumer action in the form of product or service boycotts. One example from recent history was the noise faced by the Board of directors of Shell in the mid-1990's over its decision to use a deep-water disposal strategy for the Brent Spar oilrig. After enormous consumer and, in some cases, government pressure, Shell had to dispose of the platform but it cost them millions of dollars of revenue due to customer action.

Locally the former Iscor (now Mittal Steel) saga continues with a lot of action from the small farm owners surrounding the Iscor works in Vanderbijlpark, who claim that Iscor polluted their underground water. It was reported in all news reports a few years ago that it cost Iscor millions of Rands to buy some of the surrounding small farms to avoid the negative publicity and damage to its reputation.

#### **4.4.9 Supply chain risk**

Norton (2005) says that supply chain risk is an area that needs more scrutiny as companies continue to increase outsourcing to gain competitive advantages. This area of operational risk is a growing concern among shareholders.

### **4.5 OPERATIONAL RISK AND BUSINESS CHANGE**

Shareholders expect companies to maximise shareholders value and a lot of companies recognised that the ever-changing business environment requires a lot of bravery in the kind of risk-taking needed to achieve maximum shareholders value. The only thing that companies can be certain of in modern days is change.

Frost *et al.* (2001:13) emphasise the fact that change is on the way and that a lot of organisations have recognised that their cultures do not encourage the kind of risk-taking needed to maximise shareholder value. They also realised that a lot of the risks they do take, are poorly managed and therefore many executives in a wide range of diverse business sectors have launched major initiatives to improve their approach to

risk management in recent years. These initiatives focus on managing risks actively in the striving for opportunity and ultimately, profit.

Over the last few years organisations in most sectors have become involved in a programme of almost constant change like downsizing, business process re-engineering, quality management, mergers and acquisitions and outsourcing. One can just read the business section in almost all the daily newspapers to prove this to be correct. An organisation's exposure to operational risk tends to increase as the rate of change increases and individual change initiatives interact with each other. Experience has shown that the rate of change can alter the risk profile of an organisation, which can result in catching management and staff by surprise.

As an example Frost *et al.* (2001:37) say that the introduction of new technology may not be a significant source of operational risk by itself, but the secondary effects of its implementation could indeed be. An example is the implementation of a new straight-through payments processing system involving automatic diarising and payment reconciliation. If this new technology is introduced at the same time as the downsizing of clerical support groups that were previously responsible for identifying and correcting reconciliation problems, the overall level of exposure to risk may increase. Another good example is the introduction of new delivery channels, like the Internet, which may have cost benefits, but it might not be controlled effectively if there is not the necessary increase in technical staff with appropriate skills.

Frost *et al.* (2001:38) continues to say that an increase in transaction volumes because of increased market activity can put pressure on companies to perform and increase the impact of disruption. Lately the many mergers and acquisitions have increased many organisations' overall exposure to operational risk, especially just after the deal when working practices, systems and corporate cultures that are not designed to work together, are suddenly thrown together. Although it is accepted that there are a lot of benefits by merging businesses in the shortest time possible, this can result in "corner-cutting" in a number of operation and business processes at a time when proper management supervision may be absent.

To conclude, it seems that changes to overall business relationships, with increasing

cross-organisational dependencies and the attempt to integrate working practices, systems and cultures that were not initially designed to work together as well as the ever-decreasing level of experienced management supervision to ensure that the changed business relationship are effectively implemented through-out the organisation, are just some of the reasons that result in increased operational risk.

#### **4.6 THE BENEFITS OF OPERATIONAL RISK MANAGEMENT**

Over the last few years there has been an increasing influence of shareholders on the Board of directors, and business performance is more and more measured by reference to shareholders' value. The increasing importance of financial performance benchmarks such as earnings per share growth, or economic value added (EVA), is indicative of this shift in emphasis. Board of directors tend to invest capital in the higher return projects and it is in this context that risk management can make a contribution towards increasing the value of a business.

Frost *et al.* (2001:44) argues that shareholders' biggest risk is to establish how much the accumulated return on their investment differs from their expectations. Traditional shareholders have been more concerned with financial volatility than with the possible hazards that could change shareholder value. In general, risk management practices contribute to the improvement of shareholder value as they assist to generate a business environment that is able to minimise both the likelihood and impact of risk occurrences that could decrease shareholder value and exploit opportunities to create value when they arise.

Higgins (2003:2) quotes that operational risk management is getting the attention of businesses outside of the major banks at a rapid pace. The Board of directors in any industry will soon realise that the successful chief executive officer of the future will be a master of building a culture with effective operational risk management systems at its core. Managing for shareholders value is likely to change the orientation of risk management. Management must be willing to broaden their approach to risk, moving beyond the existing focus on risk as hazard to embrace the opportunity and uncertainty dimensions of risk. To be precise, management must be willing to explore the

relationship between growth, risk and return.

There are a number of links between the following seven drivers of shareholder value and operational risk management activities (Frost *et al.*, 2001:45):

- Sales growth. Companies can change operations to develop and introduce competitive services and products.
- Operating profit margin. A more forward-looking strategy would be to develop and deliver high-value premium products and services.
- Cash tax rate. Ensuring that information is timeous and accurate.
- Working capital. This means that, among others, just-in-time stock management can result in improved cash flow by freeing up capital tied up in the business.
- Fixed assets. Preventative maintenance can fight off capital depreciation.
- Cost of capital. By preventing business interruption and making the business infrastructure more stable, companies can improve their credit risk ratings, leading to lower cost of debt.
- Growth duration period. By achieving greater operational efficiency through risk management, companies can grow by improving the time-to-market of their products.

The conclusion can be made that operational risk management can be successful only if the members of the organisation want it to be successful. Unfortunately many organisations ignore potential risks and wait for a major disaster to happen, before risk management becomes a high priority. As time goes by, the perceived importance fades again. From the variety of literature available on risk management it became evident that many companies still don't use a co-ordinated approach to manage risk as very few companies have the systems ready to continue serving customers in the event of a breakdown. Well-managed organisations manage both the downside and the upside of risk, as risk creates opportunity.

## **4.7 COMPONENTS OF OPERATIONAL RISK**

In support to the main objective of this study it is also necessary to investigate what the major components of operational risk are. Although the view of other authors will be included, this part of the study will deal mainly with the two main components of operational risk as defined and discussed by Frost *et al.* (2001:61-92), because of the very broad study conducted by them on operational risk. These components were briefly dealt with in par. 4.2 of this chapter, but will now be dealt with in detail.

These authors divide operational risk into the following two components:

- Operational integrity.
- Service delivery.

### **4.7.1 Operational integrity**

Operational risk management needs to find expression in an organisational framework for it to be effective, therefore managing operational risk in any systematic fashion has been very difficult up to now. The non-existence of framework and all-round risk awareness from an enterprise-wide perspective has made it difficult to mitigate risk in any systematic sense.

Throughout the 1990's the increasing influence of corporate governance issues has made the issue of internal control an essential business process, but the focus on internal controls is too narrow. There is a strategic opportunity in establishing an operational risk management framework – a framework can facilitate decision support for strategic management levels. The balancing of risk and reward, rather than the creation of more internal bureaucracy, should be the prime consideration of establishing a framework. In short, frameworks can facilitate strategic decision-making, rather than just focus on control for control's sake. A related positive benefit is that the adoption of framework from a strategic viewpoint can improve companies' external image. Publicising high standards of risk management, can give competitive advantage (Frost *et al.* 2001: 61-63).

#### **4.7.1.1 Model for risk management framework**

A high-level model for establishing a risk management framework with a particular focus on operational risk entails the following four key steps:

- Building supporting operational risk management architecture.
- Establishing policy and organisation.
- Designing and implementing controls.
- Creating an insurance strategy.

These four key steps will now be discussed in more detail under the headings stated above.

##### **4.7.1.1.1 Building a supporting operational risk management architecture**

An operational risk management framework may be relatively easy to design but is often difficult to implement. Important factors are to be considered that will form the basis for an effective framework:

- Senior management commitment.
- A common language that can articulate a common process for the identification management of risk.

To build an enterprise-wide operational risk management architecture requires the development of a project implementation plan that can drive a company through change. Therefore, a process change owner should be appointed to co-ordinate the development of the project plan, report to senior management, facilitate the implementation and oversee the required employee communication and training initiatives. The following should be covered:

- The current business environment to monitor the impact of the change process on existing spectators and minimise the consequence of any change-related problems.

- Development of an operational risk profile of the proposed target environment can help identify process design flows at an early stage.

The management of project-related risks affecting a company during a change is a key aspect of operational risk management (Frost *et al.* 2001: 65).

#### **4.7.1.1.2 Establishing policy and organisation**

As said before, operational risk management can be effective only if it is integrated into the centre of operations and operating principles. To formulate this framework a range of organisational and business components should first be examined as a basis for definite action. Key components include the following (Frost *et al.* 2001: 66-67):

- **Strategy.** This will be determined by factors like current operations, business objectives and risk-appetite. Companies will need to anticipate what they hope to achieve if they put in place a risk management plan.
- **Policy and principles.** The purpose of establishing a policy is to ensure that a consistent approach to risk management will apply throughout the company in order to ensure that the expectations and obligations of all stakeholders are met. A set of principles that apply to specific components of operational risk (for example change and project management, business continuity planning and management succession planning) should support the policy.
- **Organisational model.** A clear structure with defined operational risk management roles, responsibilities and reporting lines is an important element of the framework, with the main purpose that the established policy is executed effectively.
- **Process portfolio.** The processes should define how action is to take place within the context of the above organizational model.

Other factors include the following (Frost *et al.* 2001: 68):

- Self-assessment and profiling
- Executive and dedicated reporting

- Executive and dedicated reporting
- Capital allocation
- Stress testing and key risk indicators
- Investment appraisal
- Control standards.

To ensure that risk management stays an ongoing process, everybody in the company should be motivated to take responsibility for operational risk management in his/her particular area. However the policy, design and framework for operational risk management should be driven by the Board of directors and managed in the context of an enterprise risk management team. This team should have representatives at all levels of the company including the Board of directors, the operational risk management committee, the different business units, functional experts and specialists, line management and key supervisors and staff.

#### **4.7.1.1.3 Designing and implementing operational controls**

Operational risks could be decreased to acceptable levels by implementing risk improvement measures and controls. Risk improvement measures are strategic or operational controls applied to the business processes, based upon the importance of the process and associated data to the business and the value of the actual impact loss. Controls should be aligned with a company's business objectives, but the budget available to implement these controls might pose a problem.

The following activities are needed to implement risk improvement measures (Frost *et al.*, 2001:92):

- A critical assessment of business processes to prioritise the areas where risk exposure needs to be improved.
- A threat analysis must be done to determine the value of the loss if an occurrence takes place.

- Net risk analysis that includes the mitigating effect of controls that is already in place.
- Risk improvement selection to identify where the company is exposed to unacceptable levels of risk so that new or improved controls can be implemented.

#### **4.7.1.1.4 Creating an insurance strategy**

When choosing an insurance strategy, companies have three main options (Frost *et al.*, 2001:94):

- **Risk retention** by either pro-actively managing risk through loss-control or by establishing an internal provision for loss or both.
- **Risk transfer** by transferring the funding of a potential loss to a third party such as an insurance broker.
- **Risk financing** by using a mixture of the above approaches.

#### **4.7.1.2 Other types of operational integrity risks**

Olsson (2002:54-59) describes other risks, which can also be seen as operational integrity risks. These will be discussed under the following headings:

- Reputational risks
- Environmental risks
- Legal/compliance risks
- Systemic risk.

##### **4.7.1.2.1 Reputational risk**

Binneman (2005 ) defines reputational risk as the threat of any event that can damage a company's reputation.

In an article on operational risk management, it is stated that the most significant issues

facing business today, according to respondents to a "Risk Barometer" survey, are reputational risk (Operational risk management, 2005). This can be defined as the threat of any event that can damage a company's reputation.

Chorafas (2002:59) refers to an old Greek proverb that says: "...better to lose your eye than your name" and says that this saying encapsulates the essence of reputational risk, which is like a barrier option: all or nothing. The slightest signal that a company is regarded as a liability has to be taken seriously and should immediately alert top management. The lessons to be learned from Long Term Capital Management (LTCM), Barings, and so many other crashes or near bankruptcies is that in business, reputation is based both on ethical behaviour and on standards of responsibility and reporting. Failure to face up to obligations is essentially what reputational risk is about.

Olsson (2002:59) defines reputational risk as "... the risk that the reputation of an organisation will be adversely affected". A good example of how significant the downside can be if a company's reputation is damaged is the case during the late eighties and early nineties, when the founder of a large jeweller's business had made "innocent" remarks at a dinner. He made a speech in which he stated that there was more value in the prawn cocktail that they had eaten than in most of the jewellery that he sold in his shops. These light-hearted comments made headline news the following day and the negative publicity seriously affected the reputation of his business. Within twelve months he was forced to drop control as sales and profitability dropped significantly. Another company acquired the business at a very low price after the share price that had a high of £3,87 a share in 1987 fell to 12 pence in 1992. Negative rumours or publicity often results in slow decline and although it might not be noticed immediately, a manufacturing company for example might see a decline in orders as its customers have concerns about the product. A decline in sales, profitability and cash flow, may lead to more rumours, which result in a downward spiral in orders and profits. Following this downward spiral, providers of capital may become concerned and withdraw their support, which can then result in cash flow problems. If management does not take urgent action to reverse the situation, business ceases.

Especially in the financial services section, reputation is very important and any adverse

rumours can have serious results very quickly. A well-known recent example in South Africa is what happened at Saambou Bank, where rumours lead to huge withdrawals made in a short time-span, which resulted in a difficult time for Saambou Bank. Fortunately this one could be saved.

What is important from these examples, is that reputational risk is mostly a secondary risk and that the principal risk is the result of failure to manage the other types of risk effectively, for example legal action for non-compliance with laws or protests by green activists. Recent examples of this are Coca-Cola's poor handling of contaminated cans in Belgium in 1999 and the outcry over Shell's plans to dump a decommissioned oil platform in the North Sea in 1995. Luckily these companies could handle the crisis by recalling quickly and not going into denial mode. Therefore, they could return to their former position and enhance it by taking the opportunity to turn a negative outcome into a positive outcome (Olsson, 2002:60).

Blunden and Allen (2004:17) state that reputation could make or break a business in today's society. Informed investors are not just concerned with whether the product or service provided is good or not; they also want to know which company it is associated with and how that company is perceived in public. Although reputational risk is very much at the top of the agenda for many companies, only a few are doing anything proactive about it.

A survey done by Aon Ltd on European Risk Management and insurance, showed that more than 100 European corporates ranked reputational risk as the second biggest business threat after business interruption. The same survey ranked the effective management of reputational risk as the single largest opportunity to increase shareholders' value however, only 22 percent of the surveyed companies had a formal strategy in place to manage risk (Aon, 2002-2003).

To build a sound reputation can take years of effort but it can be destroyed in a matter of days. Most of the time, reputational risk management is about damage control after the event instead of preventing it to happen. The primary aim must be to minimise the subsequent effect on the share price and credit rating. Some common techniques as identified at a recent Ernst and Young workshop, are the following (Blunden & Allen,

2004:18-19):

- Branding investment
- Positive investment on social responsible projects
- Advertising
- Political lobbying
- Communications strategy
- Maintaining relationships with the media.

Reputational capital is created when managers can persuade employees to work hard, customers to buy its products, investors to purchase its stock, the wider community to offer legitimacy, activists to offer advocacy and the media to offer favourable coverage (Blunden & Allen, 2004:19).

#### **4.7.1.2.2 Environmental risk**

Olsson (2002:54) defines environmental risk as "... the risk that an organisation may suffer loss as a result of environmental damage caused by themselves or others which impact on their business". Activists from the "Green Movement" managed to raise public awareness and concerns over environmental damage caused by man's activities. This resulted in increased focus on environmental risk during recent years. Both direct as well as indirect impact on the environment is of concern, i.e. not only the production processes but also the final products. A familiar example is the CFC's from aerosol cans that were perceived to deplete the ozone layer and force manufacturers to change to more environmentally friendly options.

Direct impact is fairly obvious for e.g. discharge into rivers, air pollution from chimneys, and oil spillages. Environmental risks increasingly come to the fore and any project taken on by companies should include a detailed environmental impact report.

#### **4.7.1.2.3 Legal/compliance risk**

Respondents in a "Risk Barometer" survey indicated regulatory risk, together with reputational risk, as the most significant issues facing business today (Operational Risk Management. 2005.) Regulatory risk can be defined broadly as problems caused by new or existing regulations.

Olsson (2002:56) defines legal/compliance risk as "... the risk of non-compliance with legal or regulatory requirements". Most of the laws are general laws that apply to all companies e.g. employment law, health and safety law, environmental legislation etc., while others are industry-specific. The risk for companies is, that the volume and complexity of the law and regulations have increased significantly in recent years and on top of that, operations have spread nationally and internationally, increasing the requirements that must be met. The biggest concern is the possible result of non-compliance as it can be fairly mild or very extreme. Unfortunately the trend for more rather than less legislation and regulation, increases the possibility of problems occurring. Therefore management should ensure that they are aware of all the requirements in order to avoid serious punishments.

#### **4.7.1.2.4 Systemic risk**

Olsson (2002:58) defines systemic risk as "... the risk that a small event will produce unexpected consequences in local, regional or global systems not obviously connected with the source of the disturbance. The best example of systemic risk in recent years was the so-called "Y2K-Millennium Bug". A lot of work was done because of the huge range of possible outcomes to potential endless risk scenarios. It was difficult to be objective, because nobody had had prior experience of such an event. The fact that very few problems actually occurred does not mean that the bug issue was over-hyped, but represents maintenance of forward-looking risk management practices.

In the Y2K case, companies found that there were many more areas of risk that they had not focussed on before. Some of them were problematic but easily solvable, whilst others were problematic because they involved reliance on external parties they could not influence. A good example of an adverse result because of a systemic event was

the downfall of Barings that was triggered by the Kobe earthquake. The Tokyo stock market fell with 15% in one day as a result of this unexpected event and the leveraged positions taken by Barings started running up losses, which escalated to several hundreds of millions of dollars, causing the collapsing of the group. Of course Barings did not collapse because of the earthquake, but because of the fact that it was unusually vulnerable due to the breakdown of basic risk controls, which meant risk concentrations, and liquidity problems were not clearly evident. This shows how unforeseen and totally unconnected events can lead to major consequences. The greater degree of connectedness and more sources of potential problems, mean that unexpected systemic events are more and more likely to occur and companies should not be caught unprepared (Olsson, 2002:58).

#### **4.7.2 Service delivery**

##### **4.7.2.1 Introduction**

As previously said, no classification of risk is cast in concrete and the types of risk defined in literature are not exclusive, nor all-embracing. What all the literature has in common though, is that a typical company is subjected to a wide variety of risks (Doherty, 1985:2). Earlier in this chapter operational service delivery risk was referred to as part of operational risks and the reason behind this is that most businesses lately are looking for ways to speed up delivery to their customers in an attempt to gain a competitive advantage. Traditionally risk management did not have this as an objective but because of the ever-changing marketplace and increasing uncertainties, managers will begin to see a connection between risk management and improved customer service. Frost *et al.* (2001:2) define service delivery as "... the organisation's ability to perform business processes on an ongoing basis". In order to maintain business continuity, there is a range of operational activities that has to be managed effectively. They will be dealt with under the following headings, according to the categorization of Frost *et al.* (2001:102-103):

- Capacity management
- Human resources management

- Supplier management
- Service management
- Sourcing management
- Project management
- Crisis management.

From a strategic management point of view, the continuity of operations to direct the context in which managers can manage could enable them to make better decisions. The main target is to improve the quality and continuity of services to the customer, because customer satisfaction distinguishes a business from its competition.

#### **4.7.2.2 Capacity management**

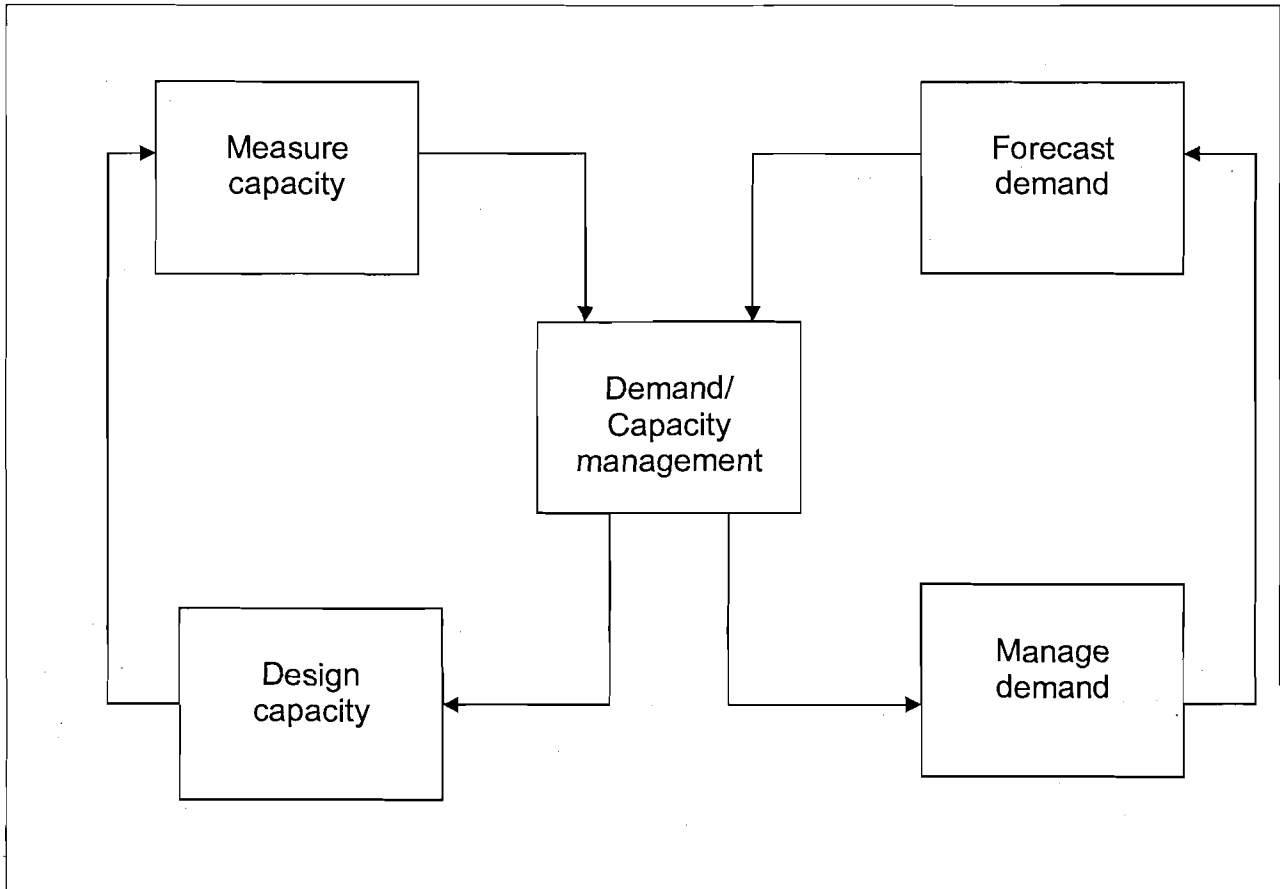
The main aim here is to manage demand and supply and to ensure that risks associated with operational business processes are managed to an acceptable level.

The capacity of a company is its ability to use its resources to produce the output to satisfy market demand. The risk is present when capacity planning is done, as it entails the forecasting of future capacity. It can be very difficult, as demand can fluctuate, leaving a business with too much capacity in times of low demand or over utilising their resources in times of high demand. A proper estimate of future needs must be done to either increase or cut back on capacity.

Frost *et al.* (2001:102-111) states that because of the current economic climate, all companies need to operate as near to full capacity as possible, but "over-using" of resources can result in business interruption as man and machine can collapse under constant pressure. The obvious signs when capacity is misjudged are either bottlenecks on the one hand or overcapacity on the other. The important part is to identify where the obstacles lie in operational processes, and by doing that, companies can achieve greater efficiency and take more risks. Capacity planning is of great importance in managing this risk.

A capacity planning management model is illustrated in Figure 4.2.

**Figure 4.2 Capacity planning management model**



Source: Frost *et al.*, 2001:112

Another important aspect of capacity planning is to look at industry risk and the development of a capacity plan.

#### **4.7.2.2.1 Industry risk**

This is defined as the risk associated with operating in a particular industry. Industry risk has a few important aspects, which need to be considered in doing capacity planning as it might impact on future forecasts of demand. They are the following (Olsson, 2002:39):

- Life cycle stage. Like any other thing, industries have life cycles and go through phases of birth, growth, and maturity and finally, decline. Examples of industries in

the declining phase are coal, steel etc, and in the growing phase, telecommunications and electronics.

- Volatility. This is an industry where growth changes quickly, either up or down, which make planning and decision-making more difficult.
- Degree of concentration. In earlier days there were a lot of government protected industries but today the barriers are broken down and companies are more competitive as governments privatise. New industries emerge which competes with established ones.

#### **4.7.2.2.2 Development of a capacity plan**

When a bottleneck or process failure occurs, the normal reaction of managers would be to look for the source of the failure for e.g. work in progress levels, the frequency of mistakes and the availability of machines. However, in more complex operations a more sound and systematic risk management approach is required which takes into account a range of factors such as market environment, strategy, risk appetite and so on. The main steps in developing an effective capacity plan may include the following (Frost *et al*, 2001:119-111):

- Carrying out a business process capacity planning health check.
- Analysing the current environment, which could include the following:
  - An understanding of the current capacity planning processes and how they fit into the business objectives.
  - Establishing workload characteristics and resource constraints in existing processes.
  - Understanding service level commitments.
  - Identifying the main measurement criteria to monitor demand.
  - Documenting the current resources and costs allocated to the process.

- Implementing tools to record demand and forecast future demand.
- Implementing a database to record capacity utilisation measurement information.
- Determining the timeousness and accuracy of management information.
- Based on the above results, a capacity planning model must be developed which would, among others, include the following (Frost *et al*, 2001:120-121):
  - The determination of short-, medium- and long-term capacity requirements against the planned business objectives.
  - The evaluation of alternative methods to enable extra capacity to meet peak demand.
  - The preparation of detailed capacity planning designs and budgets that meet business requirements.
  - The translation of business growth estimates into the capacity requirements of each critical business process.
  - Identification of cost changes related to capacity changes.
  - Development of risk assessment processes in order to ensure that future business can be accepted without an effect on existing operational resilience.
  - The development of long-term relationships with business partners to ensure flexibility of supplies and services.
  - The implementing of analytical tools for capacity planning.
  - The development of benchmarks to compare the performance of existing processes with other business units or competitors.
- A precondition for the effective management for both demand and capacity, is the ability to measure and report capacity within the business. The data should be

gathered from historical, actual and forecast information sources.

#### **4.7.2.3 Human resources management**

The continuity of an operation depends as much on the “continuity” of the people as it depends on the continuity of the physical assets. Lombard (1998:7) states that human resources are the ultimate foundation and driving force of an organization. It is accepted all over in the business world, irrespective if companies are in the same industry or not, that every organization has its own culture which are primarily centered on its vision, mission and value system. Researchers have established that there is a close relationship between a company’s culture and its effectiveness and efficiency (Lombard, 1998:12). Irwin, Michael and Walker (1989:10) state that the era of “human capital” investment is one of the new realities of organisations today.

Norton (2005) states the following areas as constituting potential human resources risk areas:

- Employee fraud
- Unauthorised activity
- Rogue trading
- Employee misdeed
- Employment law
- Loss/lack of personnel.

Lombard (1986:16) states that researchers and consultants in organizational behaviour recognized the close relationship between the culture of a company and its levels of effectiveness and efficiency. The belief can strongly be argued that a company’s future profitability and competitiveness will increasingly depend on the

- quality, total involvement and motivation of its employees;
- key competencies of the company;

- the degree of empowerment granted to individuals and executives; and
- the recognition of small group effectiveness and efficiency (doing the right things right the first time).

The danger is that if a culture exists where people are unmotivated, the ability of the company to deliver the service effectively would be in doubt. A too strong focus on the technical side of the business processes can result in managers being unaware of people-related problems, which can negatively affect risk management. It is important to disclose in the annual report what policies are in place to manage the “soft issues”.

#### **4.7.2.4 Supplier management**

To control and manage risk in the supply chain is an integral part to ensure that the product is delivered to the customer in the most efficient way possible. The once neglected area of the supply chain has become a very important management issue that has resulted in the massive increase in investment in enterprise resource planning systems in many industries over the last few years.

Operational risk management has a critical role to play in facilitating supply chain efficiency and improving service delivery to the customer (Frost *et al.* 2001:139-141). Customer satisfaction has become a top priority and therefore, placing an order should be made as easy as possible and promises on shipment and delivery dates should be kept. Order to delivery lead times should be as short as possible. Supply chains should be re-engineered so as to ensure that not too much inventory is kept as it ties up working capital, but customer needs should be satisfied. Special care should also be taken in the area of dynamic business sectors like information technology where products can become out of date in a matter of a few months, resulting in product obsolescence. The modern trend in nearly all major companies is to reduce warehouses and stocking points, as well as the number of suppliers they work with. Also final products are customized as far down the supply chain as possible in warehouses. The main issue is to conduct business from the perspective of processes to improve customer satisfaction, which more closely match market principles.

#### 4.7.2.5 Service management

This aspect of management is about ensuring that IT systems are an asset and not a liability, because IT is now far more critical to the success and operational continuity. Success in today's business environment is often dependent on achieving "best in class" service delivery levels with better processes than those of competitors. The management of processes that meet strategic objectives and operational service level requirements comprises a number of core activities such as the following (Frost *et al.*, 2001:145-147):

- Planning and maintenance of processes.
- Defining the appropriate performance measurement process.
- Setting and monitoring operational buffers to provide sufficient capacity to process increased volumes or volatility in transactions and business requirements.
- Establishing operational back-up and recovery arrangements to minimize the adverse impact of failures.
- Preparing and implementing operational contingency facilities to address catastrophic failures that may have a significant impact on the operational processes.
- Managing corporate communication in respect of
  - issue and crisis management
  - public relations
  - community relations
  - legislative and regulatory affairs
  - financial communication
  - media management

- employee relations
- management, communication and marketing training.

#### **4.7.2.5.1 Information technology (IT)**

Olsson (2002:46) states that the number and scale of technology risks increase almost daily. Very often the systems required to support business activities are not in place because systems are not updated to meet business needs. Information technology facilities have become an integral part of almost every business and when computer systems go down for significant lengths of time, it can affect customer service levels adversely. Most major companies have invested vast amounts of money in IT over the past few years and in order to optimize IT investment, companies need to think about an effective IT risk management strategy.

The major areas that should be covered by IT risk management are the following:

- Mission critical networks
- Process dependencies
- Digital business and information security
- Disaster recovery.

When IT risks is assessed, the following questions should be considered (Frost *et al.*, 2001:152):

- What are the critical business processes within a company?
- What are the key IT systems that support them?
- What are the major threats facing the continuity of these systems?
- What preventative and contingency measures should be implemented?
- How should departments best develop a co-ordinate business continuity strategy?

Norton (2005) states that the main factors in systems risk are

- technology investment
- development
- access
- capacity
- failures and
- security breach.

Today's management and Board of directors must be able to understand and competently deal with IT issues. Like so many issues on which business success depends, the actual performance of IT does not always meet expectations and companies experience a lot of problems such as the following (Deloitte, 2003):

- Inadequate or obsolete technology
- Maintaining adequate security
- Overruns on project deadlines and budgets
- Availability of systems
- Integrity of the data produced by the systems
- Business losses and damage to the organisation's reputation
- Failure to deliver on the benefits promised.

These problems should be of great concern to a Board of directors and in order to prevent failures and losses and demonstrate good corporate governance, a company should ensure that

- it's IT strategy is in alignment with the organisation's overall business strategy;

- the effort being put into IT can be measured and actually realizes the promised benefits;
- IT serves as an enabler by exploiting opportunities and maximising benefits;
- IT management uses resources responsibly; and
- The risks provided by IT, are managed properly.

Effective IT governance should provide business benefits such as (Deloitte, 2003):

- reduced costs through better control of the IT function and projects;
- preservation of the business's reputation and credibility;
- the opportunity for financial and IT management and the Board of directors to understand the businesses' IT direction and projects; and
- IT being used effectively as a business enabler and a competitive advantage.

Because of the complexity of the IT environment, the Board of directors will need to rely on both executive and IT management in order to provide info for decision-making and to manage the risks involved in IT. Good IT governance contributes towards the successful achievement of business strategies and is no longer a stand-alone function. IT governance should be treated with the same level of commitment than that of overall governance.

#### **4.7.2.6 Sourcing management**

Outsourcing has become an important manner in which businesses can achieve their strategic objectives. Unfortunately this can only be done if they do not suffer a loss of control over increasingly key processes, assets and people. Operational risk management plays an important role to prevent this from happening.

Olsson (2002:47) states that outsourcing was seen as a cure for many things, a manner to reduce costs and part of the so-called "focus on core competencies" trend. The reality is that there is increasing concern over the loss of control, which results from this.

The most popular functions outsourced in recent years include IT, human resources, finance and administration. Outsourcing creates a number of critical operational risk issues and a holistic approach to outsourcing, one that evaluates both risks and rewards, is crucial. The purpose of outsourcing should be to free up management and fill the members with confidence to take on more risk in the core value-adding business areas.

In achieving stability over the course of the outsourcing agreement, people management is crucial as jobs are often at stake. A sound business case can assist to mitigate much of the operational risk by providing direction and certainty in working towards defined goals. The wrong approach towards outsourcing, like an attempt to outsource an operational problem that management would rather not want to deal with, can cause more harm than benefit to the organisation. Outsourcing reverses the historical tendency of in-house functions as the control of a lot of functions is transferred to third parties. The future of outsourcing lies in outsourcing business processes, which promises to deliver a number of opportunities and benefits to costumers, but will also increase operational risk. Some of the main reasons why companies consider outsourcing are as follows (Frost *et al.*, 2001:163-165):

- The reduction and control of operating costs
- Improving organisation focus
- Gaining access to world-class capabilities
- Freeing internal resources for other purposes
- Accelerating re-engineering benefits
- Improving management control
- Making capital funds available
- Assisting in minimizing share price risk
- Avoiding being swamped with extra administrative functions during a period of

growth

- Minimizing the need to accelerate a learning curve in a new business area.

As already stated, the use of outsourcing increases operational risk in a number of ways, such as the following (Frost *et al.*, 2001:165-167):

- The most basic problem is a lack of strategic clarity before outsourcing takes place.
- Some outsourcing transactions are worth millions of rands, which success or failure making a bigger difference to a company's overall financial position.
- There is always the risk of initial business disruption because of the handing of control over to a third party.
- Companies become newly dependent on third parties to manage what could be an important part of their operations.
- Service contracts might become outdated if strategic aims of an organization change.
- Outsourcing generally suggests a more efficient way of doing things, which is not always true.
- There may be an increased risk of access to private and sensitive data in the case of outsourcing of IT functions.
- In the case of outsourcing human resources, they are actually transferring over one of their most important assets.
- Staff problems because of a reluctance to change.

In the following four key areas a focus on operational risk management can bring benefits during the planning stages of an outsourcing project (Frost *et al.*, 2001:170):

- Proper pre-outsourcing preparation by doing adequate planning, for e.g. evaluating the experiences of other companies that have outsourced.

- Proper negotiation and management of the outsourcing contract to ensure that the contract is both certain and flexible. Not every unexpected event can be legislated for; however, a lack of clarity can provoke disputes or disagreements, which will result in the possibility of a business disruption. The contract should also specify the following:
  - Performance measurement
  - The scope of work
  - Terms and conditions
  - Service level agreement.
- The risk of subcontracting should be assessed as one of the common reasons why management feels uncomfortable with outsourcing, is the fear that they will lose control.

The main risks of this include the following.

- Poor communication due to a broader chain of employees and cultural differences.
- In case of IT outsourcing the risk of viruses brought in by outsiders, increases.
- Unexpected costs and the possibility of low quality service.
- Once the decision to outsource has been made, the outsourcing plan should be communicated to employees.

#### **4.7.2.7 Project management**

Projects are the principle vehicle through which companies implement strategic and operational change. A project can be the creation of a physical asset through investment or it can be a wide variety of business changes for e.g. a merger or acquisition. Projects normally lead to new opportunities and a lot of companies enter into a variety of projects on an ongoing basis because of the modern business climate that places a high premium on continuous change. The effectiveness of teamwork

between all project stakeholders is the most important single factor determining its success.

#### **4.7.2.8 Crisis management**

It is reported on a daily basis that businesses around the world are thrown into crises because they suffer the impact of serious, unexpected events like shipping accidents, train crashes, and chemical leaks. The most recent one in South Africa which was extensively published in all the major newspapers, was the gas leak and resultant explosion in Sasol's plant in Secunda, which caused the death of several people. Crisis management has different drivers in different industries and the particular significance of a crisis at a given time, will depend partly on the nature of that industry.

Frost *et al.* (2001:202) quotes that crisis management should not be confused with disaster recovery, which refers more specifically to repairing immediate damage and returning business operations to normal as quickly as possible. Effective crisis management is more dependent on the right cultural factors being in place before a disaster strikes. New business opportunities are put at risk when a crisis strikes because it can bring a company to a sudden halt. "Ripple" effects often occurs after a crisis that can affect the whole company or the community, e.g. a fire may lead to unemployment and pollution.

The financial enterprise today that understands the myriad of potential threats to its people, processes, systems and structures stands to be better equipped for sustained continuity (Operational risk management, 2005). Business crises and continuity management (BCCM) is a dynamic change management initiative that requires dedicated resources, funding and auditing. Effective BCCM analysis is an ongoing, continuous operation, and therefore, takes a combination of factors across the organization to provide "continuous continuity". A one-time threat or risk assessment or even an annual look at what has changed across the enterprise is totally unacceptable. The best practices talk about a BCCM that will be periodically updated, but "periodic" is not continuous. The key factor is to take into account all the changes that took place in the company between the periodic updates, which is not always possible. This should change over time as organizations realize that BCCM is a vital business component and

should strive for “continuous continuity”.

A crisis can put tangible and intangible assets at risk, which has to be dealt with to minimize damage to market share, share price and other aspects of reputation. Although crisis management cannot be a full-time job, it is a necessary strategic investment and its value is instantly realized when the unexpected occurs. Emergency planning is often under-resourced because companies are reluctant to invest large amounts of resources into something that does not guarantee a commercial return. It is, therefore, important that crisis management is supported at the highest management level in the organisation.

According to studies done in the United States of America, 80% of companies that do not have a workable crisis management plan, will fail within one year after a major disaster has struck (Frost *et al.*, 2001:203-204). Businesses are more familiar to plan against commercial risks, but the same principles apply for crisis management, i.e. probability and impact. The business continuity plan should visualize the effects of a disaster unfolding and should always cater for the worst-case scenario. This should visualize

- the incident stage;
- the recovery stage; and
- the continuity stage.

The aim of the plan should be to (Frost *et al.*, 2001:207)

- minimize possible risks to health and safety;
- enable the company to make a quick, co-ordinate, and sound response to any crisis; and
- reduce the long-term damage to the business.

It is very important that detailed instructions are prepared and issued at every level within the crisis management organisation in order to ensure that incidents are reported

rapidly and that the respective management levels are alerted.

#### **4.7.2.9 Conclusion**

Organisations that can prove that they have sound risk management procedures in place can become a more inviting prospect for investors, especially if they operate in a volatile marketplace. Potential investors may feel more comfortable for companies to take on more risky ventures if there is greater analysis of the risk. In more than one way this is in touch with original objectives of corporate governance, i.e. to provide a balance between managerial risk-taking and entrepreneurial energy with effective monitoring in order to ensure that management interests are aligned with the interests of those who have entrusted their capital to the enterprise and other stakeholders. These should be extensively dealt with in the disclosure on risk management policies in the annual reports, to gain shareholders trust.

### **4.8 MANAGEMENT OF OPERATIONAL RISK**

Once again there are as many ideas on the management of operational risks as there are authors who writes about the management of these risks, but they all agree that to manage operational risks it needs to be identified and assessed, where-after appropriate measures of mitigating it should be implemented followed by constant monitoring.

Higgins (2003:1) says the first task that the chief executive officer of a business must perform in terms of operational risk management, is to ensure that there is a management system in place for operational risk. This entails a process approach for establishing, implementing, operating, monitoring, maintaining and improving the effectiveness of a company's operational risk enterprise architecture. Operational risk enterprise architecture can be broken down to get a better view of some of the specific operational attributes, as discussed in more detail in par. 4.2 under the headings "people, process, systems and external events".

Operational risk management uses a self-assessment process that enables an organization to look at the risks associated with its business objectives and determine

the best ways to manage its exposure to those risks. This implies a process of risk identification, risk assessment and risk management rather than fire fighting, crisis management and clean up management (Jennings & Asaro, 2004).

The attributes of operational risk are the same key areas that need to have metrics created for measurement and auditing. Performance management, balanced scorecards and other methodologies for managing, monitoring and continuous improvement need to be implemented in order for the Board of directors to get timely alerts, updates and reporting. The operational risk enterprise architecture is a management framework that requires a process approach embedded with the legacy of our quality initiatives of the past several decades. The reason for this is because of the threat of change itself. The following "plan – do – check – act" model is appropriate for application to this approach and the threat of a constantly changing environment (Higgins, 2003:2):

- Plan. Establish policy, objectives, targets, processes and procedures for managing operational risks to deliver results in accordance with the company's business objectives.
- Do. Implement and operate the policy, controls, processes and procedures.
- Check. Assess and measure in applicable areas while reporting results to management for review.
- Act. Take corrective and preventive actions based on results to continually improve the operational risk enterprise architecture.

The "4D" approach to managing operational risk provides the initial framework for creating a strategic enterprise risk management initiative in the company. The "4D" approach comprises the following (Norton, 2005):

- Deter
- Detect
- Defend

- Document

Norton (2005) further adds that each area has its own tools, systems and processes, yet each is connected to the total risk management system.

## **4.9 CONCLUSION**

To be able to evaluate the adequacy of disclosure on risk management practices and policies, it is necessary to understand what is considered to be good practices. In this chapter a detail investigation was done to determine what operational risk management entails and what types of risks are classified as operational risks. From the viewpoint of the different sources studied in this chapter, it became clear that there is not one single definition for operational risk management but that they all have the same meaning. The conclusion can be made that operational risk exists because of the different actions taking place in the business environment on a daily basis that can result in loss on the negative side, or the creation of new opportunities on the positive side. These actions can be of a human or of a technological nature or because of the different processes in the company and the infrastructure and environment in which the business operates.

Another objective was to look into the importance and the benefits of operational risk management and from the literature study done it became clear that because of the rapid speed of change in the business world today, for example globalisation, electronic trading, increased competition and legislation, the exposure to operational risks in most industries has increased. Operational risk management practices contribute to the improvement of shareholder value as they assist to generate a business environment that is able to minimise both the likelihood and impact of risk occurrences that could decrease shareholder value and exploit opportunities to create value when they arise. Board of directors tend to invest capital in the higher return projects and it is in this context that risk management can make a contribution towards increasing the value of a business.

It also became clear from the literature study that there must be an effective risk management process in place to identify operational risks, establish appropriate methods of mitigation and ensure the implementation, operation, monitoring and

maintaining there-of and to introduce improvements where necessary.

In many cases the cause of failure is not the quality of the product, service or people but it is simply financial failure, which results in closure or bankruptcy. In the following chapter an in-depth study will be done into what financial risk management entails. The different types of financial risks will be studied in detail, as well as methods to mitigate them. Finally a brief look into the financial risk management process will be done.

## **CHAPTER 5**

### **FINANCIAL RISK MANAGMENT**

#### **5.1 INTRODUCTION**

It is expected that the one category of risk that will be properly disclosed in the annual reports of companies will be financial risk. In order to determine what is considered to be adequate disclosure, a detail investigation into what financial risks management entails, will be necessary. In the previous chapter an in-depth study of operational risk management was done, but just as important as operational risk management, is financial risk management. The pressures of generating new business and the perceived costs of risk management often result in this important aspect being pushed to the bottom of the management agenda. In many cases the cause of failure is not the quality of the product, service or people, but simply financial failure, which results in closure or bankruptcy.

Chorafas (2002:v) states that senior executives expressed the opinion that for the next few years, the key words are, amongst others; leverage, profitability, cash flow, and liquidity. From this it is clear that the management of financial risk will be one of the most important drivers of success in the performance of companies. Many senior managers and financial analysts are of the opinion that, at the dawn of the twenty-first century, in an environment charged by credit risk, some incidents have occurred that, although important in themselves, were even more important as part of a pattern of uncertainty and nervousness in the financial markets. The risks that a company is exposed to, will differ from business to business but in general, financial risks relates to the company's cash flows and the way its operations are financed, coupled with the future uncertainties of financing decisions taken.

In support of the main objective, the aim of this chapter is to determine what financial risk management entails. A detailed study will also be done in the types of risks that are classified as financial risks. The study will also include risk

management practices to mitigate the effect of the different areas of financial risk and a brief look into the financial risk management process.

## **5.2 WHAT IS FINANCIAL RISK?**

Financial risk relates to the volatility of unexpected outcome or movements in financial variables. Financial risk variables arise generically in the form of interest rate risk, foreign exchange risk, equity risk and commodity risk. By not managing these variables properly, it could result in the total collapse of the business (Batten and Fetherston, 2002:3).

Financial risks can also arise from incorrect budgeting as well as the timing of cash flows. Managing an entity's cash flow risk is a major part of the management of the entity's liquidity risk. The primary objective of proper cash management is to ensure that the company has sufficient cash reserves to meet all short-term financial commitments as soon as they become due. Another important objective is to promote the short-term earning power of temporarily idle cash by investing it in marketable securities to earn interest until the cash is needed for another purpose in future (Lovemore & Brümmer, 2003:72).

The risks that a company is exposed to will differ from business to business but in general, financial risks relate to the company's cash flows and the way its operations are financed, coupled with the future uncertainties of financing decisions taken.

Doherty (1985:2) defines financial risk as the risk involved in providing and maintaining capital for a company because of capital market fluctuations. Dowd (2002:1) defines financial risk as the prospect of financial loss or gain due to unforeseen changes in underlying risk factors. Marx *et al* (2003:4-26) categorise financial risk as follows:

- Foreign exchange risk or currency risk
- Interest rate risk

- Credit risk
- Gearing risk
- Cash flow risk.

Fatemi and Luft (2002:31) define financial risk, in contrast to strategic risk, as the risk that arises from adverse changes over relatively shorter time frames in interest rates, commodity prices, share prices and foreign currency values. Adverse changes in these factors translate into real losses in shareholder value, taking into account the form and magnitude of the company's net cash flow exposure to each of these factors.

Financial risk is the possibility of changes in financial conditions in the future that will affect revenues or costs (Coyle, 2000:3). The term "exposure" that can be defined as exposure to risk, describes the existence of a financial risk for a business. Coyle categorizes financial risk as follows:

- Country risk, sub-categorized into economic, political and regulatory risk
- Price risk
- Credit risk and counter-party risk
- Interest rate risk
- Currency or exchange rate risk.

Dowd (2002:1) combines a number of risks into one particular risk, namely market risk. He defines market risk as the risk of loss/gain arising from unexpected changes in market prices or market rates. He classifies market risk into interest rate risks, equity risks, exchange rate risks, commodity price risks and so on.

From the aforementioned, financial risk can shortly be defined as the risk of an entity to maintain financial health and wealth in a very volatile environment where unforeseen changes in underlying risk factors like interest rates and exchange rates can result in financial losses or gains. The success of the entity to deal with

financial risk will depend on how flexible it is to adjust to these unforeseen changes in this volatile environment

The remainder of this chapter will be spent on a brief look into the major categories of financial risk under the following headings:

- Foreign exchange or currency risk
- Interest rate risk
- Credit risks or liquidity risk
- Gearing risk
- Cash flow risk.

### **5.2.1 Foreign exchange or currency risk**

Dowd (2002:1) states that exchange rates have been volatile since the breakdown of the Bretton Woods system of fixed exchange rates in the early 1970's. Periodical exchange rates crises have also resulted in significant unexpected exchange rate changes, like the East Asian currency problems of 1997-98, the Russian ruble crisis of 1998 and Brazil in 1999. Coyle (2000:23) states that the Smithsonian Agreement (1971-1973), that had as objective the re-alignment of the exchange rates between major currencies, followed the Bretton Woods system. This agreement tried to continue with a system of fixed exchange rates, but this proved to be unsupportable. Exchange rates could not be stabilized in the face of large international imbalances and movements of capital. Industrialised countries moved to a system of floating exchange rates in 1973 because a fixed exchange rate system could not be sustained. For this reason, exchange rate risk can be defined as the effect that unanticipated exchange rate changes have on the value of the business.

Homaifar (2004:10) defines currency risk as the economic, transaction and accounting consequences of the fluctuation of exchange rates. He says that foreign exchange risk is unique to multinational corporations as the foreign-

denominated cash inflows or outflows must at some time in the future be converted to the domestic currency of the operating unit, creating a windfall profit or loss. Direct foreign investment in the form of acquiring foreign real assets, i.e. buying a plant overseas or building manufacturing facilities to take advantage of imperfections in offshore markets and portfolio investment in stocks, bonds and bills and other short-term assets, entails opportunities for bigger return (exchange gains) and higher risk due to foreign exchange losses. To appreciate the severity of losses that companies experience due to unexpected changes in spot and forward rates, the foreign exchange losses and events for a number of companies around the world are listed in Table 5.1. The fluctuation of exchange rates strongly impacts many businesses and can even lead to bankruptcy. Although Homaifar states in the before mentioned that foreign exchange risk is unique to multinational companies, the whole economy, including the individual consumer, is actually exposed when foreign currencies fluctuate.

Coyle (2000:7) defines currency risk as the risk from adverse movements in exchange rates. If a company has assets or liabilities denominated in a foreign currency or contracts to receive or pay in a foreign currency, it is exposed to that currency. An adverse movement in the exchange rate can affect a company by

- reducing its cash income;
- increasing its cash expenditures;
- reducing its reported profits;
- reducing the reported value of its foreign currency liabilities; and
- damaging its competitive position in its domestic and foreign markets to the advantage of foreign rivals.

Coyle (2000:8) further states that cash flows are at risk from adverse exchange rate movements because of the following:

- Companies that receive income in foreign currency mostly want to exchange it into domestic currency. For example, a French company that receives \$50 000

for selling equipment to Saudi Arabia, might wish to convert the dollars into euros.

- Companies with debts in a foreign currency will have to convert domestic currency into the foreign currency, i.e. buying currency to pay what they owe.

**Table 5.1 Foreign exchange losses and events**

| Company                | Transaction inducing loss | Date | Approximate loss in \$ | Description                                                  |
|------------------------|---------------------------|------|------------------------|--------------------------------------------------------------|
| Kashima Oil (Japan)    | Futures                   | 1993 | 1.5 billion            | Speculative losses stemming from loss of internal control    |
| Abbott Lab (U.S)       | Foreign exchange          | 1993 | 41.9 million           | Loss due to unfavorable exchange rate                        |
| Telephones de Mexico   | Foreign exchange          | 1994 | 218 million            | Loss due to unfavorable exchange rate                        |
| Bank Negara (Malaysia) | Futures                   | 1993 | 2.1 billion            | Speculative loss in foreign currency futures                 |
| Allied Lyons (UK)      | Foreign exchange options  | 1991 | 219 million            | Speculative loss from unauthorized option hedging            |
| Viking Star (Bahamas)  | Foreign exchange          | 1991 | 31.4 million           | Unfavorable exchange rate movement                           |
| Showa Shell (Japan)    | Foreign exchange          | 1993 | 1.54 billion           | Affiliate of Shell conceals foreign exchange loss for years. |

**Source: Homaifar, 2004:11**

Currency risk to cash flows arises because of movements in the prices of exchange rates, at which foreign currency is converted (Coyle; 2000:8). Profits are also at risk if earned by foreign subsidiaries because of exchange rate fluctuations. A company's competitiveness in both domestic and international markets can be under threat from currency risk.

To summarize, currency risk can be defined as the risk of profits/losses from changes in foreign exchange rates. A company is exposed to foreign exchange risk because of exporting and importing of goods or services, borrowing or lending in a foreign currency and by investing in foreign countries. Exchange rates can vary by large amounts over time, but can also be quite volatile during shorter periods of time.

#### **5.2.1.1 Methods to control short-term foreign exchange risk**

Some of the methods to control short-term foreign exchange risk are the following (Marx *et al.*, 2003:4-27):

- Forward cover can be taken out in the form of foreign exchange contracts to protect the company against fluctuations in the exchange rate.
- A company can take up foreign currency option contracts, which gives the owner the right, but not the legal obligation to undertake a transaction regarding a specific asset at a future date and at a predetermined price.
- Foreign exchange risk can also be eliminated if an exporter invoices the foreign customer in the exporter's domestic currency or if an importer arranges for a foreign supplier to invoice them in SA Rands.
- Matching receipts and payments, which means that a company that buys and sells in the same currency, can reduce its foreign exchange rate transaction exposure by matching the receipt of foreign currency and the payment of foreign currency.

- Leading and lagging, which means that a company can make payments in advance of the due date, or delay payments beyond the agreed date, to take advantage of foreign exchange rate movements.

Osei-Kuffour (2001:41) says the main advantage of forward cover is that it is easy to use and the management of the company will know exactly what amounts of money they will receive in foreign exchange, but although it will prevent uncertain losses, it also prevents gains. A lot of importers in South Africa lost a lot of money by taking out forward cover when they believed that the rand could not strengthen any further against the dollar, but the rand did indeed strengthen even more. There is thus also risk in forward cover.

An option to buy foreign currency is referred to, as a “call option” while an option to sell foreign currency is a “put option”. If an option is not exercised by its given date, the agreement is deemed to have elapsed. Osei Kuffour (2000:41) also states that currency options are useful when a company wants to have the “best of both worlds”, in other words, a company wants to insure against downside exchange rate risk but also wants to save some of the benefits of favourable exchange rate movements. Even this option contracts entails some risk, because if nothing happens, the premium paid is a loss.

In addition to the above, the following can be used and instituted to control foreign exchange risk (Osei-Kuffour, 2000: 41):

- A company can use currency futures when it has limited access to the forward market. This involves an agreement to buy or sell on an organized exchange, a number of a specific financial instrument or commodity at a fixed price for delivery at a fixed date. This contract goes through a clearinghouse, which guarantees every contract. The main advantage of this is that it is cheaper than a forward contract and is also suitable for hedging smaller amounts, but it is more rigid than forward markets as trading is on daily adjusted margins.
- Another way to manage foreign currency risk is to purchase or sell foreign currency at the spot rate, thereby fixing the exchange rate. A market hedge's main advantage is that it is possible to hedge in any currency in which the user

can lend or borrow and it is also more suitable for smaller businesses. The disadvantage is the same as for forward and futures contracts, i.e. it can eliminate currency losses but it cannot take advantage of any gains.

- Another popular way of reducing foreign exchange risk is to net the exposure, whereby a parent company and its foreign subsidiaries, dealers and distributors review all payables and receivables and offset it against each other where possible. The benefit of exposure netting is not just the reduction of foreign exchange to settle inter-company transactions, but it also reduces transfer and commission charges through fewer cross-border payments.

Although there is a chance of profits from currency fluctuations, most companies would give up the possibility of currency exchange profit if they could avoid the net of currency exchange loss (Kelley, 2001:32).

Several methods and treasury instruments could be used for hedging financial risks, but the company must first identify the financial risks and then select the most suitable method. Not even multinational companies hedge all their exposures, because cover should be sought and taken only when it seems worthwhile. However, a decision not to hedge should be a positive one. A company's management must know what its exposures are and be able to recognise the alternatives for reducing the risk. It is fine not to hedge an exposure, but this should be a considered decision, not a passive hope that the exposure will resolve itself (Coyle, 2000:10).

Coyle (2000:95) suggests several ways in which a company might seek to control its currency risks:

- Transaction exposures can be avoided by refusing to buy or sell, except in domestic currency.
- Translation exposures can be avoided by refusing to establish foreign subsidiaries.

- The threat that foreign competition might benefit from exchange rate movements and be able to be countered by measures to improve productivity, reduce output costs and become more cost competitive.

For many companies, however, currency exposures cannot be controlled in such a simple way. They must buy goods from abroad and pay in foreign currency, or must accept payment in foreign currency for export sales. Bigger companies must seek development of their businesses in world markets by setting up subsidiaries abroad. As international trade develops and markets become more global, companies will face increasing currency exposures and other measures should be adopted to control them. Measures to hedge currency exposures have evolved over recent years and companies can choose which hedging methods to use. These include measures such as forward contracts, options, futures and swaps (Coyle, 2000:97).

The international financial manager has to cope with different currencies, interest rates and inflation rates. The interest rate parity theory states that the interest differential between two countries must be equal to the difference between the forward and spot exchange rates. In the international markets, arbitrage ensures that parity almost always holds. There are two ways to hedge against exchange risk; one is to take out forward cover; the other is to borrow or lend abroad. Interest parity tells us that the costs of the two methods should be the same (Brealey & Myers, 2003 :806).

From the before mentioned, it seems that it is not always necessary to hedge against foreign currency fluctuations, but businesses should not gamble in foreign exchange by avoiding to hedge, in the hope of making speculative profits. The risk of not hedging is too big as the opposite of what was expected can happen and can result in total bankruptcy.

#### **5.2.1.2 Methods to mitigate long-term currency risk exposure**

In theory the same hedging instruments as discussed in 5.3.1.1 to control short-term currency risk can be used to hedge long-term transaction exposure, but there

is a limited market for currency futures options with maturity dates longer than one year. Although there are a few multinational banks that offer long-term forward exchange contracts, only large, credit-worthy corporate customers will qualify for such contracts. A number of alternative hedging techniques have been developed to decrease long-term transaction exposure (Kelley, 2001:35):

- Back-to-back loans

Corporations can reduce their respective long-term currency risk exposure by arranging back-to-back loans. Under this arrangement the companies are involved in a bilateral arrangement outside the scope of the foreign exchange markets. Not one of the companies is affected by exchange rate fluctuations, but both companies are still exposed to default risk because the obligation of one company is not avoided by the failure of the other company to repay its loan (Kelley,2001:35).

- Currency swaps

Swaps are like packages of forward contracts and can be used to avoid the credit risk associated with a parallel loan. In short, a currency swap is an agreement by two companies to exchange specified amounts of currency now and to reverse the exchange at some point in the future. The nature of a currency swap results in the lack of credit risk. The default on a currency swap means that the currencies are not exchanged in the future and it entails no loss of investment of earnings. The only risk in a currency swap is, that the companies must exchange the foreign currency in the foreign exchange market at the new exchange rate. Multinational banks often act as brokers to match parties in parallel loans and currency swaps, but it is difficult to find companies whose needs mutually offset one another and, therefore, currency exposure risk is only partially reduced by these actions. If a company cannot find a match, a credit swap may be used which involves a deposit in one currency and a loan in another. The deposit is then returned after the loan has been paid (Kelley,2001:35).

Homaifar (2004:177) states that the market for swaps is by far one of the most innovative in the world. Swaps are introduced in the over-the-counter market to

restructure assets, obligations, and mitigate and transfer risk for those who wish to avoid it to those who are equipped to take it for profit.

From the above it is clear that the risk of currency exposure can be reduced or even eliminated in total by the techniques and instruments described above. The instrument selected will determine how much currency risk exposure remains, as a lot of instruments do not hedge transaction exposure perfectly, but they are more accessible to small- and medium- size companies. Instruments used to better hedge currency exposure, such as put- and call options, may result in huge transaction costs. Despite of this, most international businesses prefer the surety of decreased exposure, rather than dealing with potential disastrous foreign exchange risk.

### **5.2.2 Interest rate risk**

Coyle (2000:7) states that when a company borrows or lends funds, it is exposed to financial risks associated with the volatility of interest rates. Interest rate risk is the risk from changes in market interest rates of either

- paying more in interest charges for borrowed funds than need have been paid, or
- receiving less interest income from deposits or loans in the case of banks than could otherwise have been earned.

Interest rate risk also arises from borrowing or investing in different currencies. Market rates of interest vary between currencies, e.g. a company can borrow money in one currency and then find in retrospect that it would have been cheaper to borrow in another. This currency of denomination exposure combines interest rate risk and currency risk, because the exchange rate often partially takes into account fluctuations on interest rates.

Interest rate risk can be defined as the exposure to risk when a company borrows or lends money and the interest rate changes. This will result in the company

paying or receiving more or less interest than originally anticipated. There are many different types of interest rates, for example (Marx *et al.*, 2003:4-27):

- interest rates on bank deposits and bank overdrafts;
- various money market rates; and
- interest rates on mortgage bonds.

In the annual report of People's Bank, management defined interest rate risk as the potential exposure of earnings or capital that may result from changes in interest rates (People's Bank , 1998).

In simple terms, it can also be defined as the risk that an instrument's value will change due to a change in the absolute level of interest rates, for example government bonds. Such changes usually affect securities in fixed interest bonds and can be decreased by diversifying or hedging.

#### **5.2.2.1 Methods of controlling interest rate risk**

The effective management of interest rate risk should be based on the following rules (Marx *et al.*, 2003:4-28):

- When interest rates are low, it will make financial sense.
  - To borrow more, desirably at a fixed interest rate to increase the company's gearing.
  - To borrow for longer periods.
  - To refinance with cheaper debt, in other words, to redeem high interest-rate loans and enter into new low-interest loans.
  - To swap a floating interest rate for a fixed interest rate through a financial institution.
- When interest rates are high and the expectancy is that it will rise even higher or remain at a high level, the following must be borne in mind.

- A company can decide to substitute debt finance with new equity finance.
- A company with surplus cash can switch short-term investments into interest bearing securities.
- A company can also decide to raise new finance by borrowing at variable interest rates instead of long-term loans at a fixed interest rate.
- A company can hedge against fluctuations in interest rates.

Interest rate risk is the core of all aspects of integrated risk management, i.e. credit risk, market risk, asset and liability management, performance measurement and operational risk. One of the key macro-economic factors will be completely missed if credit risk analysis is not built on a random interest rate risk framework (Van Deventer *et al.*, 2005:65-66).

Financial derivative products could serve to hedge against interest rate risk. Derivatives are financial instruments whose value is derived from another asset, referred to as the “underlying asset” and they can have commodities, foreign currencies, interest-rate instruments, equities or other derivatives as underlyings. They can be stand-alone instruments; designed and traded specifically for financial management purposes or they can be embedded in financial instruments. Derivatives are often complex financial instruments, which can add significant amounts of risk to an institution’s profile if inappropriately used. As stated before, a high-profile example of an organisation that suffered catastrophic failure because of improper use of derivatives is Barings Bank, which collapsed as a result of massive losses caused by Nick Leeson and his illegal derivatives trading activities Mehta (1999).

Derivates include a large range of contracts with mainly the same principal feature; their value is dependent on the value of one or more underlying asset and in very broad terms, they can be categorised in the following three principal groups (Belchambers, 2003:146):

- Futures, which can be defined as agreements to buy/sell a commodity, financial instrument or other underlying property at an agreed price but delivery will take place only on a specified date in the future.
- Options, which can be derived as agreements whereby one party acquires the right but not the ability to buy or sell a commodity, financial instrument or other underlying property, along with the futures contract, at a price determined at the time of the agreement, including an additional payment for that right.
- Swaps, which can be defined as agreements to exchange cash flows determined by reference to an underlying instrument.

Derivatives are the most widely used instrument for managing market, credit and other forms of risk. Reitsma (2000:42) also states that various derivative instruments are available to hedge interest rate risks. The conclusion can thus be made, that although it is not possible to avoid interest rate risk, it is possible to mitigate the effect of interest rate risk on the business by various hedging instruments and techniques available.

According to Homaifar (2004:178), forward market agreements, coupled with borrowing and lending in domestic or foreign currency produces a synthetic derivative known as swaps, involving two parties that finance each other's debt in a single currency at floating at a fixed rate (interest rate swaps) or in two currencies denominated in dollars and foreign currency at fixed for floating rate or fixed for fixed rates (currency swaps).

### **5.2.3 Credit risk**

Marx *et al.* (2003:40-28) define credit risk as the risk of losses from the non-performance or default of a third party in the normal course of business. According to Reitsma (2000:III) credit risk involves the capacity and willingness of a counter party to settle a debt or a liability. In simple terms it can be said, that credit risk is the risk involved when a debtor fails to meet his/her financial commitments that arise from a credit agreement, promptly. According to Homaifar (2004:12) credit risk or counterparty risk is the risk that one of the parties to a

contract will fail to perform for whatever reasons and does not fulfil its financial obligations.

Concerns that counter parties will fail to pay or deliver goods have become a growing reality over the past few years. The absolute importance of managing risk has increased at the same time due to high-profile bankruptcies and the need to rebuild investor confidence (Duhig, 2004:54).

Ammann (2001: v) states that credit risk is an important consideration in most financial transactions. As for any other risk, the risk taker requires compensation for the undiversifiable part of the risk taken.

It can be concluded that companies need to effectively manage credit risk so as to protect them from damages associated with a major default. The important aspect to remember is that although it is not possible to avoid credit risk, it is possible to manage and mitigate the effects thereof.

#### **5.2.3.1 Methods to manage credit risk**

Credit assessment should be done on all parties with whom business dealings will be done. The size and nature of the business and the transaction itself will determine the nature and the scale of the assessment to be done. A detail financial analyses and the financial stability of the business will be important elements of the assessment. It is also important to manage and monitor credit and counterparty risks on an ongoing basis and the credit status of companies can change overnight, with disastrous results on a company's business dealings and resources (Marx *et al.*, 2003:4-28).

Assessing the right amount of credit protection can be crafty, as the correctness of financial statements, the availability of collateral and different types of agreements within a contract are all part of it. As credit downgrades continue to outpace upgrades, companies are searching for innovative solutions for credit risk mitigation. At the point of downgrade, the availability of credit protection will reduce and the price of that protection will increase. The protection can be in the

form of new self-insurance (reserves), the need for additional collateral (like cash deposits, letters of credit and surety bonds), and insurance (Duhig, 2004:54).

Credit risk cannot be avoided otherwise there will be no business. Yet it can be mitigated by proper assessment of potential customers. Marshall (2004:11) listed the following "Ten Hiding Places for Business Credit Risk":

- Capitalisation. Assess how the company is capitalised and if it has reliable access to future capital. One should also determine what the sources of capital are and how the capital is structured.
- Loss on derivatives. It should be assessed whether complex hedging strategies are in place that may not be actual hedges and whether the derivatives used are liquid.
- Mark-to-market accounting. Ensure derivative positions in place are valued correctly and determine the valuation logic. Find out if the valuation logic has material impact on financials.
- Managing leverage with new forms of debt. Find out if convertibles that look like equity, actually act as debt triggers.
- Goodwill and intangible valuations. Determine what assets are being valued and at what price. Evaluate to see if big write-offs are forthcoming.
- Off-balance sheet transactions. Establish if there are finance leases that should be operating leases, or operating leases that should be finance leases.
- Calculating pension liability. Reconcile estimated needs with forecast returns and see if forecasts are realistic.
- Financial engineering with special purposes entities and joint ventures. Determine if companies are being set up to support in product financing to customers of the parent and find out what the effect on the parent will be if the entity fails.

- Engineering with mergers and acquisition activity. Determine if any mergers or acquisitions had an impact on the company's overall debt/risk ratio.
- Revenue recognition and measurement. Find out if the company is booking future revenue in current periods for long-term contract deals and if unrealised revenue is being calculated correctly. Determine if swap transactions overstate revenue and add no realised value. Establish how currency value affects earnings.

Slater (2005:38) propounds that traditional credit risk assessment has looked backwards at an applicant's payment history, and that this was acceptable in times of more modest credit use. The business environment has changed and in today's credit hungry society, there is a threat of exposing customers to over-indebtedness. This resulted in a situation where the overall level of an applicant's debt needs to be evaluated.

Until the 1990's corporate credit analysis was viewed as an art rather than a science because analysts missed a way to adequately quantify absolute levels of default risk. A revolution in credit-risk management took place in the past decade. Twenty-five years ago the work of Black, Scholer and Merton resulted in a mathematical formula to objectively quantify credit risk, which came to dominate the viewpoint of academic finance and credit risk, referred to as the Merton Model. To actually implement it, was more difficult than originally anticipated and Vasicek and Kealhofer developed a straightforward variant of the Merton Model, referred to as the KMV Model that built on the original insights of Black, Scholer and Merton. The objective of the Merton Model was the valuation of the company's debt, based on the company's asset value and volatility whilst the KMV Model focuses on the relationship between the company's equity characteristics and its asset characteristics. Given the asset characteristics and given the company's default point the KMV Model can be used to calculate a simple powerful measure of the company's default risk. The biggest distinction between the two models is, that the KMV Model primarily focuses on the probability of default of the company as a whole, rather than the valuation of a debt (Kealhofer, 2003:30).

The way business is conducted has dramatically changed in recent years because of computers and the Internet. Credit departments are no exception and credit risk analysis through the use of credit scoring models are becoming more automated with the use of computers and the use of the Internet to obtain and compare financial data. Assessments of individual buyers or companies in the same industry can be done on the same criteria and companies can be numerically rated by using credit-scoring models. Automated credit scoring has the advantage of decreasing manpower by eliminating accounts that do not need individual review and it also provides a way to document the criteria used in making credit decisions. Credit scoring can be a cost-effective way to qualify buyers. There are two basic types of credit-scoring models, which can be used to do credit risk assessments for potential buyers (Diana, 2005:12):

- (1) **Judgemental-based systems credit scoring model**, based on subjective opinions made from past experience on the relative importance of many variables such as customer payment history, bank and trade references, credit agency ratings and other information obtained from various financial statements. The disadvantages of this type of model are that they are subjective and the judgements assumed in the scoring, may not be statistically correlated to risk.
- (2) **Statistically-based credit scoring model**, which can more precisely determine what factors contribute to the credit risk, as it was a different statistical analysis to determine the relationships between variables. This analysis presents a quantitative picture of how these variables affect the credit risk of a specific company. These variables can include payment history as well as other financial credit information relevant to the company. These models are software based and can help to identify accounts likely to be good credit risks and those that are likely to be bad credit risks. A credit analyst can review the ones that fall between good and bad in more detail, so by using a credit-scoring model, the numbers of accounts that need more intensive individual attention, are reduced. The following three factors will persuade more credit risk managers to use credit scoring models:

- Cost, because advance technology will result in these models to be less expensive.
- The more strict financial disclosure on risk management, as required by King II.
- The easy access to financial information through the use of the Internet.

Dumstorf (2004:46) says that in her particular organisation they have developed a credit risk process based on seven essentials and this can be useful to other companies as well:

- A formalised credit policy process.
- A method for evaluating its counterparties and setting their credit limits, normally by using a credit-scoring model.
- Together with evaluating an entity's counterparties, they should also be monitored on a regular basis.
- After setting credit limits, the trading with a counterparty must be measured and monitored against its credit limit.
- A good credit report should mark the company's forward position to market using the market price of that day, which gives a snapshot of existing exposure if the counterparty were to default today.
- It should be known how much credit loss a company could experience at any given time with the current trade portfolio, by using a credit value at risk model which uses the potential credit exposure and applies default probabilities in respect of a counterparty's credit rating, projected recovery rates and counterparty correlations. The objective of this is to derive at a realistic worst-case credit loss amount and measure it against the pre-determined credit value at risk limit for the particular company's risk appetite.

- The final essential towards a successful credit risk management program is the company's willingness to provide credit support when the unavoidable collateral call comes from the counter party.

As can be seen from the above, credit risk is not avoidable and should not be avoided, but it can be managed. Selling something to customers on credit is essential in making sales profits for most companies. Companies are pressurised more and more to sell on credit because of the increasing competitive global economy, but to sell on credit means to take on risk - the biggest risk being that the customer can be bankrupt or suffer cash flow difficulties, which will then result in non-payment of their debts. The analysis of credit risk cannot be classified as an exact science, but it can help to identify those accounts with the most risk, so that measures can be taken in advance to reduce the probability of non-payment.

#### **5.2.4 Gearing risk**

Gearing risk refers to the ratio between debt capital and equity capital (Marx *et al.*, 2003:4-20). This will ultimately be the risk that the providers of debt capital will bear if the company collapses. By dividing a company's debt by the shareholders' entity, the financial gearing percentage can be calculated. The level of financial gearing is an important predictor of the company's success and risk. A high financial gearing means a high proportion of debt compared to the company's shareholders equity, whilst a low financial gearing means the opposite. If the ratio is high, it can be an indication that the company may have problems in the future paying its debts effectively.

Financial gearing is a much more important figure than simply the amount of debt a company has, because a company with a very large debt but also large equity, can have a low financial gearing and low-risk status, while another company with a very small debt but also a very small equity can have a high financial gearing and high-risk status. For that reason, in many cases a company with a higher debt could be a lower-risk investment than a company with a lower debt if the shareholders' equity is bigger. A company with a high gearing ratio is in a very dangerous situation if interest rates increase. The interest bill will be rising fast

with not necessarily a corresponding increase in sales revenue, resulting in profits to drop.

Lovemore and Brümmer (2003:180-181) define financial leverage as a company's capacity to use fixed financial costs to increase the effect of change in earnings before interest and tax on earnings per share. If the criteria to use return on equity instead of earnings per share change, the definition can be restated on the company's capacity to introduce increasing amounts of debt capital into its capital structure in order to increase profitability to owners at proportionally higher rates of return, which would also include proportionally higher levels of risk.

Brigham *et al.* (1999:586-588) promotes the use of debt financing, together with equity financing. The following example is used to illustrate why:

Company X has R5 million in equity. If they decide to change their capital structure by taking up for example debt to the value of R2, 5 million and use these funds to replace R2, 5 million of equity, the return on equity will increase, but the use of financial leverage also increases the risk that the equity investors will bear.

#### **5.2.4.1 Importance of financial gearing**

Financial leverage has the following three important implications (Brigham *et al.*, 1999:77-78):

- By raising funds through debt, equity holders can maintain control of a company while limiting their investment.
- Creditors assess the equity to provide a margin of safety, so if the equity holders provide only a small proportion of the total financing, the risks of the company are then largely borne by its creditors.
- If the company earns more on investments financed with borrowed funds than what its interest bill is, the return on the owners' capital is magnified.

If management has the knowledge and they are also informed about the risk appetite of the company, the expected rate of return to stockholders can be

increased if a company has the right amount of debt. The reason for this is because of the tax benefit since interest is tax deductible. This will result in higher income that becomes available to investors. The other reason for optimising gearing risk is that if the expected rate of return exceeds the interest rate of the debt; as it mostly does, a company can use debt to acquire assets which can expand the profit potential of the company (Brigham *et al.*, 1999:79).

If gearing risk is not properly managed, it can cut both ways. If sales are lower and costs are higher than were expected, the return on assets will also be lower than was expected. This will result in the leverage company's return on equity to fall and losses could occur, because interest on debt must be paid. Especially during a recession special care should be taken to manage gearing risk as the company with the strong balance sheet can survive, where-as the one with debt can deplete a major part of its cash to service any debt. Additional funding will be hard to get because potential investors might be cautioned by a loss situation. As a result such a company might just not survive the recession (Brigham *et al.*, 1999:79).

Financial gearing could also be defined as the relationship between a company's debt and the equity it has from its shareholders. Whether a company has a high or low financial gearing is a significant predictor of its success and risk. A high financial gearing results from having a high proportion of debt to equity, which could be an indicator that a company may experience problems in the future to pay its debts effectively (Fact Expert, 2005).

The conclusion can be made, that entities with relatively high debt ratios have higher expected returns when the economy is normal but they are more subject to losses when the economy weakens. The risk decision to be made is to balance higher expected returns against increased risk.

#### **5.2.4.2 How to determine the optimal gearing**

Companies cannot determine their exact optimal capital structure. Therefore, management will have to apply judgement to their quantitative analyses, which

involves several different aspects. Some of the more important judgemental issues that should be considered are the following (Brigham *et al.*, 1999:605-609):

- **Managerial conservatism.** Investors with a well-diversified portfolio have eliminated the majority of diversifiable risk from their portfolios. For this reason the typical investor can bear some degree of financial anxiety because a loss on one share can possibly be offset by gains on another, but management of entities, on the other hand, generally view financial stability as quite important and the present value of their expected future earnings can be seriously affected by financial distress. This results in management to be more conservative in their use of leverage than what the average shareholder would like.
- **Lender and rating agency attitudes.** This is often an important aspect in the determination of a company's financial structure, despite management's own analyses of the proper gearing for their company. Even if a company's management feels very confident about the future and wants to use leverage outside the industry norm, finance providers might be reluctant to accept the risk and will only do so at a high price. Coverage ratios like times-interest-earned (PBIT divided by total interest charges) or fixed charge coverage ratios (also take into account fixed charges other than interest) are used to measure the risk of financial distress.
- **Reserve borrowing capacity and financing flexibility.** Companies should maintain some reserve borrowing capacity, which maintains their ability to issue debt on favourable terms. To get this financing flexibility, companies generally use less debt under "normal" conditions; therefore, show a stronger financial picture than what they would otherwise have. If viewed strictly on a short-term basis, it seems sub-optimal, but viewed on the long-term it is not. The emphasis that management places on financing flexibility can be summarised by the following statement made by a corporate treasurer to Brigham *et al.* (1999:608): "Our Company can earn a lot more by making good capital budgeting decisions than by making good financing decisions. Indeed we are not sure exactly how financing decisions affect our stock price, but we

know for sure that foregoing a promising capital investment, because funds are not available, will hurt our stockholders. For this reason, my primary goal as treasurer is to always be in a position to raise capital needed to support operations without having to sell new common stock and sending out a negative signal.”

- **Control.** The capital structure decision can be affected by the impact of debt on management's control position. A management group that is not concerned about voting control may decide to use equity instead of debt if the financial situation is so weak that the use of debt might put the company in financial trouble. Control considerations do not suggest the use of debt or equity, but the result of financing decisions on control must be considered.
- **Business risk.** A company with fairly low operational risk can take on more debt than companies with high operational risk. It is important that companies must limit their total risk and the higher the operational risk, the less opportunity there is to take on financial risk.
- **Asset structure.** Companies tend to use excessive debt if their assets are suitable to serve as security. For this reason, real estate companies that have highly marketable assets tend to be highly leveraged, whilst companies that are involved in technological research show the opposite.
- **Growth rate.** Quicker growing companies must rely more on external capital as low growth can be financed with retained earnings, but rapid growth usually requires the use of external funds.
- **Profitability.** Highly profitable companies like Microsoft just do not need to do much debt financing as their high profits help them to do most of their financing with retained earnings.
- **Taxes.** The higher the company's corporate tax rate, the bigger the benefits of using debt, as interest is a tax deductible expense whilst dividends are not tax deductible.

- **Market conditions.** Conditions in the share and bond markets are subject to both short- and long-term changes that can have an effect on a company's optimal capital structure. When the "junk bond" market dries up, it is almost impossible for companies to issue lower-quality debt at "reasonable" interest rates, which will result in low-rated companies in need to capital to be forced to either issue shares or use short-term debt, irrespective of their target capital structure.

It is very important that management must be lead by the degree of risk present in the company's field of operation when determining the optimum capital structure. The availability and cost of long-term funds are also important aspects to consider. The company may experience difficulties in raising long-term loans if the degree of risk is high and they might have to raise more share capital which is more expensive but less risky. If risk is lower, the company can consider using a more suitable proportion of long-term debt (Lovemore & Brümmer, 2003:169).

The leverage ratio is also very important in determining the optimum leverage level of the company. This is determined by the ratio: return on equity (ROE) / return on assets (ROA). This ratio must be higher than one, but not too high above one, as this can also be dangerous because it can mean that the company is overtrading.

#### **5.2.4.3 The purpose of an optimum capital structure**

Lovemore and Brümmer (2003:170-184) say that a company would not be able to do business by using short-term capital only, unless they have a monopoly or conducting an extremely successful business. For this reason companies must use a certain amount of long-term capital as a risk buffer between themselves and their creditors. The main objective of constructing an optimum capital structure is to ensure increasing share value and owners' wealth whilst also accommodating risk. Although it is generally accepted in financial circles that maximising owners' wealth is to be preferred to maximising profits, the role of capital structure is of utmost importance in both wealth and profitability maximisation.

From the viewpoint of potential investors, the study of a company's capital structure can provide an indication of either of the two following attitudes to risk Lovemore and Brümmer (2003:184):

- A conservative capital structure can indicate that the company is operating in a risky environment and is, therefore, not willing to take any chances with a more aggressive approach in planning its capital structure.
- If the company has a more aggressive approach towards risk, it can indicate that it either is experiencing financial difficulty and is borrowing from every available source, which results in an increased debt/equity ratio or else, the company is confident that its income is consistent enough to justify a high return on equity by having a comparatively high debt/equity ratio.

To conclude, it seems that the sensible decision would be based on how well the capital structure is suitable to accommodate risk and to ensure maximum wealth to the prospective owner.

### **5.2.5 Cash flow risk**

In simple terms, cash flow risk can be defined as the risk that a company experiences when it has inadequate cash flowing into the business to meet its financial commitments (Marx *et al.*, 2003:4-29). A company that seems to be very profitable, could possibly face serious cash flow difficulties which can force them into liquidation, because the cash that is coming into the business from its trading operations is not sufficient to service all the obligations. The reality is that although a company might report large “ paper profits”, it still cannot survive without adequate cash resources.

From the above the conclusion can be made that to manage the entity's cash flow risk, is a major part of the management of the entity's liquidity risk. The primary objective of proper cash management is to ensure that the company has sufficient cash reserves to meet all short-term financial commitments as soon as they become due. Another important objective is to promote the short-term earning power of temporarily idle cash by investing it in marketable securities to earn

interest until the cash is needed for another purpose in future. Brigham *et al.* (1999:41-42) quote that cash flow management is so important because companies can show positive net income up until the day it declares bankruptcy. This is possible because depreciation charges and provision for bad debts for example, are journal entries and not cash transactions and can, therefore, be manipulated. In cases like this it is often seen that cash flow from operations almost always begins to weaken years earlier and assessors of risk who keep an eye on cash flow, could predict trouble long before it was made public. Risk analysts will always look at the trend in net cash flow provided by operating activities because it can tell a lot more than any other number.

Although the primary objective of cash flow risk management is to ensure that there is enough cash available to meet short-term obligations, it is also very important that there is not too much idle cash in the company at any given time. For this reason optimum cash level must be maintained. This optimum cash level should be somewhere between an optimum upper level and an optimum lower level and as soon as the cash increases above the optimum upper level, "losses" will be incurred because interest will not be earned on idle cash. If it is the other way round and cash levels fall below the optimum lower level, the company faces liquidity problems, which can result in liquidation. The main components that have an influence on the optimum cash levels are the cash turnover rate and diversifiable risk. The cash turnover rate is the number of times a year that the cash cycle is repeated and the cash cycle can briefly be defined as the amount of time that passes from the point when a cash outlay is made for the purchase of raw materials for the production process, to the point where cash is received from cash sales or cash collections from credit sales. The need for cash will lower as the cash turnover rate increases and risk usually has a delaying effect on cash turnover. For this reason, an increase in risk involved, will lead to a higher need for cash. Non-diversifiable risk manifests its effect on cash management in two ways (Lovemore & Brümmer, 2003:72-73):

- The fluctuating interest rate makes it very important to manage cash more efficiently.

- Inflation forces companies to hold smaller cash balances on hand.

When interest rates are fairly low, companies will rather invest in fixed assets and marketable securities, which will have better returns. “Over-investment” in longer terms assets can actually result in cash flow problems if returns on these investments are delayed. Therefore management need to do a proper risk assessment before investing in them.

#### **5.2.5.1 Controlling cash flow risk**

Several mechanisms decrease the volatility of cash flows but before applying these methods, management should first identify the highly volatile line items within free cash flows that need to be controlled. Methods to ensure cash flow consistency include the following (Marx *et al.*, 2003:4-29):

- The negotiation of long-term agreements or the hedging of price risk through a recognised exchange like a commodity exchange.
- Entities could be exposed to foreign exchange variations on the cost as well as the revenue cycle, which could be hedged through a financial institution or even the Reserve Bank in the case of bigger projects.
- Increasing the variable component of total cost to protect a profit margin.
- Linking of costs to revenues although it is sometimes difficult to achieve and expose the supplier to price risks. This is usually viable where the cost component forms a large portion of the sales price and huge quantities are consumed, for example the linking of electricity costs to the aluminum prices in the establishment of large industries in South Africa.

#### **5.2.5.2 Main causes of cash flow problems**

If cash flow is under control, one of the keys to a successful business has been mastered because cash flow problems are the major reason of business failure within their first year of business. The following are the main reasons for cash flow problems (Business Money, 2005):

- Accounts receivables
- Accounts payable
- Too much debt
- Rapid growth
- Temptation to over-invest
- Excessive inventory levels
- Market changes.

Each of the above will be briefly discussed to show why they can negatively impact on cash flow.

#### **5.2.5.2.1 Accounts receivable**

- To sell to customers on credit is usually a necessity to be competitive, but it is one of the major reasons for cash flow problems. Proper risk assessments need to be done on potential customers so as to ensure that customers will settle their accounts on the agreed time. Proper cash flow risk management requires that a company must do cash flow forecasts and budgets and that they must have a good credit policy and effective credit control.
- Large debtors, although usually viewed as beneficial, often demand longer credit terms, which puts the cash flow under pressure.
- If debtors are not properly managed it will result in bad debts. Late payers should immediately be followed up, whilst good relations with customers must be maintained.
- To mitigate debtors' risk, credit insurance can be obtained (Business Money, 2005).

#### **5.2.5.2.2 Accounts payable**

- Credit can be an advantage to a business because the cash flow can be retained in the business for a longer period, but having too many creditors, can be fatal to a business.
- A very serious risk to manage is when a company is dependent on payment from its debtors before creditors can be paid. If the company then fails to pay or delays payment, it can result in heavy interest charges or even the blocking of any further credit, which again increases reputational risk, or it can even be the beginning of the end of the company.
- In some instances payment can be required upfront, which puts a lot of pressure on cash resources (Business Money, 2005).

#### **5.2.5.2.3 Too much debt**

- To borrow costs money, mainly through interest charges and it is important that all the terms and conditions of the loan be thoroughly analysed and acknowledged. The effect on cash flow should be properly assessed before the signing of any contract (Business Money, 2005).

#### **5.2.5.2.4 Rapid growth**

- It is risky to over-trade, in other words, to sell more than what current cash levels can fund.
- The risk of over trading can be reduced if payment is received at the sales point i.e. no credit is offered. The effect on cash flow can be disastrous when credit is involved.
- To provide credit can be costly, therefore careful control and management are needed.
- Small companies are more at risk for over-trading, especially during their early stages because they seek rapid growth instead of more sustainable steady growth (Business Money, 2005).

#### **5.2.5.2.5 Temptation to over-invest**

- Excess cash can result in risky decisions because it can be very tempting to purchase assets like machinery and vehicles, even if the demand for a product does not need current investment. Over-investment can often be a reason for business failure as it is good management to have funds available in case conditions change or unexpected costs occur.
- Over-investment in assets can leave the company short of cash and unable to finance the daily operating costs of the business.
- To mitigate the risk of cash-shortage when investing in assets, other options should be explored, for example leasing (Business Money, 2005).

#### **5.2.5.2.6 Excessive stock levels**

- The risk when a company buys in bulk is that although a huge advantage can be obtained by bulk discounts, it should be measured against the potential disadvantage if excessive amounts of money are locked up in unproductive assets, especially if the stock turnover is low. Storage costs also have to be taken into account. Effective stock control is of utmost importance in cash flow management (Business Money, 2005).

#### **5.2.5.2.7 Market changes**

- There is always the risk that the demand for a company's product can drop and when assessing the correct cash flow levels for the business, this should also be taken into account. It may seem that this is totally unforeseeable, but with proper market research and effective marketing to maintain a steady demand, this risk can be mitigated (Business Money, 2005).

#### **5.2.5.3 How to improve cash flow management**

Cash flow management in a company could be significantly improved by carefully examining the following three questions (Barickman, 2005):

- Where is the company's cash trapped? An important part of managing any business is to optimise cash flow and, therefore, the starting point should be to determine where cash is currently tied up. To do this the balance sheet should be reviewed to determine if non-productive cash is locked-up in multiple non-interest bearing accounts. The next step is to review the uncollected accounts receivable balance because a large portion of cash can be trapped in there. Unrecognised costs or inventory can be another pool of trapped cash. Fixed assets should be reviewed and assessed in order to determine if the company still needs all the assets on the balance sheet. Another important place to look for trapped cash is loans to employees and subsidiary companies. These are just a few possible areas where much needed cash could be trapped.
- Where does cash come from and where does it go? The above review assisted in determining where cash can be trapped and the next important step is, to determine where cash comes from and what it is used for. The best place to determine this is to review the cash flow statement, which unwinds the timing differences between profits and cash introduced by accrual accounting. Cash flows are classified as operating, investing or financing cash flow. Operating cash flows arise from the ongoing operations of the business like cash sales, debt collections, inventory purchases or sale of fixed assets. Cash flows from financing activities come from borrowing and repayment of debt, as well as infusions of capital and dividend payments. The cash flow statement assists the analyst to answer two basic questions (Barickman, 2005):
  - What is causing more cash to flow out than what's coming in?
  - What can change to allow more cash to flow in than what's going out?

To do a proper assessment the cash flow for the last few years should be examined to determine where cash came from e.g. earnings, liquidation of assets, borrowings and/or capital infusion? And what was it used for, e.g. to fund growth or to fund inefficiencies like weaker debt collection or slow stock turnover, or did it go to purchase fixed assets. It should be determined whether assets that were purchased with borrowed funds, because of shortfalls in internally generated cash

flow, are put to productive use to generate cash to repay the debt. If this is not the case, the borrowings become a drawback on the overall performance of the company.

- Can the existing cash position and ongoing cash flow be improved? To do this the current processes for cash management should be analysed in order to determine whether there is any possibility to expedite the processing of receipts and accelerate the collection of funds. In today's modern age electronic transfers should be promoted where possible. It should be established if there are ways to hold onto cash a bit longer or to rearrange accounts payable procedures. One of the most important areas where cash can be trapped is accounts receivable and, therefore, it should be investigated if extended terms generate more sales or wider margins. If not, tying up non-productive cash reduces profitability. Average accounts receivable collection times should be compared to industry average to determine whether the company under-performs. An assessment of inventory levels should be done in order to reduce them where possible. The inventory levels should be compared with industry levels as well as desirable levels. The company could consider "just-in-time" inventory management procedures by shifting a portion of the burden of high stock levels to its suppliers. Accumulated excess inventory should be liquidated in the normal course of business or in a bulk sale. Investment in fixed assets should also be thoroughly reviewed so as to identify excess assets like buildings, surplus equipment and non-productive assets to determine whether it can be converted into cash.

From the above the conclusion can be made that during good times businesses tend to get "sloppy" in their cash management practices, especially when interest rates are low and credit is readily available. The saying is that at no time is cash more important than when times are tough. Companies should improve cash flow management during good times to be able to capitalise on opportunities that become available, especially from companies who were not as prudent and proactive.

### **5.3 THE IMPORTANCE OF FINANCIAL RISK MANAGEMENT**

Financial risk measurement and management is an area of endeavour that has its profile raised every time a significant monetary loss occurs as a result of the utilisation (or abuse) of derivative instruments. An understanding of financial risk measurement and management has become essential to survival in all business activity. Professional risk management has demonstrated its relevance in the corporate world by enhancing the bottom line. A well thought-out risk management strategy should be an integral core of every business (Batten and Fetherston, 2002:3).

Financial risks arise from negative changes over relatively short periods in interest rates, commodity prices, equity prices and foreign currency values and, therefore, an efficient risk management process must be in place. If a well-established process is not in place, adverse changes in these factors translate into real losses in shareholder value, although the extent of these losses are depending on the form and magnitude of the company's net cash flow exposure to each of these factors.

### **5.4 CONSEQUENCES OF NOT MANAGING FINANCIAL RISKS**

In Chapter 3, par. 3.6, Hunter quotes the key lessons that were learned from businesses that failed throughout the world. Hunter (2002:24-25) further states that in almost all the crisis countries, significant financial sector problems occurred which can be considered of a strategic nature. These could be summarised as follows:

- Government directed and connected lending.
- Poor supervision of the financial system.
- An inadequate legal infrastructure.

- Absence of a credit culture in which lenders and investors make judgements based on independent credit assessments and sound financial analysis.
- Underdeveloped bond and long-term capital markets.
- Lack of adequate accounting disclosure and transparency.
- Ineffective systems of corporate governance.

These countries that experienced these huge financial crisis had unique elements that contributed and in many cases, set off their particular episodes. Some of these elements were the following (Hunter, 2002:25):

- Weak fixed exchange rate regimes (often pegged to the U.S. dollar).
- Significant debt and asset priced deflation.
- Unstable short-term capital flows.

From the above the conclusion can be made that if financial risk management is neglected, it will result in certain failure for the company involved, as well as for the business environment that is operating in.

## **5.5 THE FINANCIAL RISK MANAGEMENT PROCESS**

As stated in previous chapters, risk management is a very important part of sound corporate governance, as required by King II. Effective financial risk management plays an important role in the development of the control environment, which in turn, provides management with the necessary certainty that the company will achieve its goals within an acceptable degree of residual risk.

A typical financial risk management programme would include the following (Marx *et al.*, 2003:4-24):

- The identification of all the financial risks that the company faces. Information to identify the risks can come from either inside or outside of the company.

- Once the risks have been identified, the key financial risks must be analysed in terms of impact and probability.
- Management should determine what level of risk is acceptable. After identifying, analysing and measuring the risks the estimated levels can be compared to pre-established criteria that are acceptable to management, in order to grade and prioritise the risks.
- Based on the prioritised risks, management should consider the most appropriate ways of avoiding or mitigating the risks and also identify who is in the best position within the company to take responsibility for this task.
- Directors and senior management should evaluate, on a periodic basis, the extent to which the set goals are met and if the responsibilities they have delegated are actually being tended to.

Batten and Fetherston (2002:3-4) state that a company's management must identify and evaluate the financial risks it faces, and then select those that should be borne. A thorough process for identifying and evaluating risks is the foundation of a risk management strategy. Risks could be prioritised according to the matrix in Figure 3.2.

Given the prioritization of the financial risks, management must decide in each case what their preferred method to deal with or to avoid those risks will be. Strategies to be considered are to (Batten and Fetherston, 2002:4)

- accept the risk or,
- transfer it partially or in total to another risk bearer or,
- eliminate it by getting out of the business or,
- control it as part of the ongoing operational process.

The conclusion can be drawn that all financial risks should not be avoided straightaway, because most of them can be controlled or mitigated. The important factor here is that management should have pre-established criteria against which

they can measure financial risks in order of priority, to establish the best method to deal with it.

## **5.6 CONCLUSION**

In order to form an opinion on the adequacy of disclosing risk management policies on financial risks, it was necessary to understand what it entails and why it is important for the success of the business.

In support of the above objective, the aim of this chapter was to determine what financial risk management entails, as well as to do a detailed study of the different types of financial risks and methods to mitigate these risks. Also a brief look into the importance of financial risk management and the consequences of not managing financial risks were done. The risks a company is exposed to will differ from business to business but in general, financial risks relate to the company's cash flows and the way its operations are financed, coupled with the future uncertainties of financing decisions taken. Therefore, financial risk will be one of the most important drivers of success in the performance of a business.

The literature study done in this chapter and previous chapters proved that risk management is a key driver in the success of any business and should, therefore, form an integral part of the operation in total. Because the annual report of a company is the communication channel to its shareholders, it should include extensive disclosure on risk management policies that are already in place, as well as the progress in the implementation of other practices that are not fully implemented yet. This disclosure will definitely result in higher trust in the management of the company from the viewpoint of the shareholders, which in the end determines the continued existence of the company.

In the next chapter an empirical research will be done into a selection of the top 100 listed industrial companies in South Africa in order to determine how effectively they comply with the implementation of a proper risk management process, as recommended by the King Committee on Corporate Governance, by evaluating their disclosure on risk management practices in their annual reports. It

remains the responsibility of the Board of directors to ensure appropriate disclosure in relation to risk management in the annual report as part of its oversight role. From the literature study done it became evident that there are numerous types of risks involved in the successful running of a business. For this reason a second objective of this empirical study is to assess what type of risks the organisation's risk management process covers and if they at least cover the ones recommended by King II.

The assessment will be based on the study of the risk management reporting done in the latest available annual reports of the selected companies, as risk management forms an important part of Corporate Governance Practices, which in turn, are disclosure-driven.

## CHAPTER 6

### EMPIRICAL RESEARCH INTO RISK MANAGEMENT PRACTICES IN LISTED COMPANIES IN SOUTH AFRICA

#### 6.1 INTRODUCTION AND METHODOLOGY

The main objective of this research is to assess the disclosure of risk management practices in listed companies. In order to do this it was necessary to understand what risk management entails and what types of risks need to be managed in order for a business to be successful. For this reason a quantitative research methodology was used, whereby a detailed study was done into the major risk areas that exist in the business environment and more specifically in a large number of listed companies in South Africa. As discussed in chapter 1, it was found that because of the rapid speed of change, companies are now finding that it is no longer adequate to take a solely defensive attitude to risk. Although control frameworks are needed as an introductory step to risk management, companies now need to manage risk for strategic advantage and improved customer satisfaction as well as increased shareholders value.

In research done by Griffiths (2001:249-257) on compliance with Corporate Governance Principles in the late-1990's and early –2000's, it was evident that company directors did not take the issue of internal control and risk management very seriously. Out of the 100 companies that surveyed by Griffiths, only 6 included a statement by directors regarding the effectiveness of their company's internal control structure and only 3 of them also stated that their system of internal control were adequate.

The big challenge facing modern risk managers today is, whether they are able to approach risk situations in a structured and integrated manner. There is a definite need to a **total approach** towards risk management, which involves more than just well considered insurance management.

In this chapter an assessment will be done on how effectively listed companies in South Africa comply with the implementation of a proper risk management process, as

recommended by the King Committee on Corporate Governance. Evaluating their disclosure of risk management policies and practices in their annual reports will do this. It remains the responsibility of the Board of directors to ensure appropriate disclosure in relation to risk management in the annual report as part of its oversight role.

A second objective of this evaluation of the disclosure of risk management policies is to assess what type of risks the organisation's risk management process covers and if they at least cover the ones recommended by King II. From the literature study it became evident that there are numerous types of risks, which need to be dealt with appropriately in order for the business to survive.

The assessment will be based on the study of risk management reporting done in the annual reports that were received from the selected companies, as risk management forms an important part of Corporate Governance Practices, which in turn are disclosure-driven. The procedure that will be followed entails a "check-list" of questions that needs to be answered by reviewing the risk and corporate governance reports included in the annual reports of the selected companies. This "check-list" of questions originates from a publication by Price Waterhouse Coopers referred to as "The King Code 2002 – Self-assessment Questionnaire". The questions used from this questionnaire, focus on what King II requires the Board of directors to disclose in the annual report in respect of risk management practices in the company. The risk management practices, based on the before-mentioned questionnaire of Price Waterhouse Coopers that were tested, are detailed in Table 6.1.

## **6.2 COMPANY SELECTION**

From the top one hundred companies as published in the "Financial Mail Top Companies" only the industrial companies were selected resulting in a total of 80 companies that formed part of the study (Financial Mail Top Companies, 2003, pp. 28-36). A letter was written to these companies, explaining to them the objective of the research and requesting them to please forward their latest annual reports. Some companies reacted soon after the request and others only after a second request. Some companies have put the researcher on their permanent mailing list resulting in the latest

annual reports to be received by the researcher. This resulted in the annual reports that were evaluated ranging from 2003 - 2005. These companies were assessed in order to determine their compliance with recommended risk management practices as per King II, as well as those arising from the literature study detailed in Chapters 2, 3, 4 and 5.

### 6.3 RECOMMENDED RISK MANAGEMENT PRACTICES

As stated before, Price Waterhouse Coopers has published a self-assessment questionnaire in March 2002 in order to assist companies in determining the level of compliance with the proposed statements of King II. As risk management forms a very important part of the recommended Corporate Governance principles, this questionnaire also includes self-assessment questions on the responsibility, application and reporting of risk management.

With the consent of Price Waterhouse Coopers, a part of this questionnaire (see Table 6.1) was used to assess the reporting on risk management, from which a conclusion can be drawn on the effectiveness of risk management practices in the companies selected for testing.

**Table 6.1 Recommended risk management practices for testing purposes**

| TEST                                                                                               | COMPLIANCE REQUIREMENT                                                                                                                                 | PARAGRAPH |
|----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. Responsibility of the Board of directors for the full process of risk management in the company | Is it disclosed in the annual report that the Board of directors is accountable for the process of risk management and the system of internal control? | 6.4.1.    |
| 2. The Board of directors should periodically evaluate the effectiveness of the risk               | Is it disclosed in the annual report that the process of risk management and the system of                                                             | 6.4.2.    |

|                                                                                                                                |                                                                                                                                                                                                                              |        |
|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| management process.                                                                                                            | internal control are regularly reviewed for effectiveness?                                                                                                                                                                   |        |
| 3. The Board of directors should set risk strategy and policies in liaison with the executive directors and senior management. | Is it disclosed in the annual report that the Board of directors is accountable for establishing appropriate risk and control policies?                                                                                      | 6.4.3. |
| 4. Risk management policies should be clearly communicated to all employees.                                                   | Is it disclosed in the annual report that the Board of directors is accountable for communicating appropriate risk and control policies through the organisation?                                                            | 6.4.4. |
| 5. The company should have implemented an effective ongoing process to identify, measure and proactively manage risk.          | Is it disclosed in the annual report that a process for identifying/evaluating/managing significant risks was in place throughout the year under review and was it in place up to the date of approval of the annual report? | 6.4.5. |
| 6. A comprehensive system of control that is focused on risk mitigation should exist to ensure achievement of objectives.      | Is it disclosed in the annual report that an adequate system of internal control exists to mitigate the significant risks to an acceptable level?                                                                            | 6.4.6. |

|                                                                                                                                                                                                                                                                                      |                                                                                                                                                                    |        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
|                                                                                                                                                                                                                                                                                      |                                                                                                                                                                    |        |
| 7. The organisation's risk management/internal control practices should contribute to the development of robust business operations.                                                                                                                                                 | Is it disclosed in the annual report that the system of internal control is designed to manage, rather than eliminate, risk of failure or opportunity risk?        | 6.4.7. |
| 8. The risk management and internal control model should provide the Board of directors reasonable assurance on the effectiveness and efficiency of the organisation, the safeguarding of its assets, the compliance with laws and regulations and the reliability of its reporting. | Is it disclosed in the annual report that the system of internal control can only provide reasonable, but not absolute assurance?                                  | 6.4.8. |
| 9 A documented and tested business plan should exist to ensure continuity of business critical activities.                                                                                                                                                                           | Is it disclosed in the annual report that a documented and tested business continuity plan exists to ensure continuity of business critical activities?            | 6.4.9. |
| 10. The Board of directors should regularly receive and review reports on the risk management process in the organisation.                                                                                                                                                           | Is any additional information that can assist in the understanding of the risk management processes and system of internal control disclosed in the annual report? | 6.4.10 |

|                                                                                                                             |                                                                   |        |
|-----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------|
|                                                                                                                             |                                                                   |        |
| 11. The Board of directors should appoint a committee to assist it in discharging its responsibilities for risk management. | Has a risk or audit committee been appointed in the organisation? | 6.4.11 |

**Source: King II**

## **6.4 RESEARCH FINDINGS OF COMPLIANCE WITH RISK MANAGEMENT PRACTICES**

The detailed results per company tested, is listed in **APPENDIX 6.1**.

The research findings for each test performed are detailed in the following sections.

### **6.4.1 Board of directors responsibility**

In a business environment where shareholder lawsuits and regulatory scrutiny are increasing, the commitment to effective risk management should begin with the Board of directors.

Although the Board of directors of most of the companies did declare their commitment in a broad-brushed manner to The King II Report, not all of them specifically declared that the Board of directors is accountable for the process of risk management and the system of internal control as required by King II. A total of 70 of the 80 companies (88%) did, however, specifically state that the Board of directors is accountable for this process.

#### **6.4.2 Periodical evaluation**

Although shareholders are the ultimate decision-makers for public companies, they cannot realistically oversee the risk management of the entire operation. Therefore they must delegate this task to their agents, the company's Board of directors. Because of the complexity of today's business environment, where new and complex risks can have a major impact on shareholder value, companies should implement good corporate governance practices, which include effective oversight of risk management.

King II requires that the Board of directors should regularly review the process of risk management and the system of internal control for effectiveness. According to the disclosure in the annual reports of the 80 companies that were tested, 76 (95%) did comply with this requirement.

Although the above finding is greatly encouraging, the number of incidents in recent years where top companies found themselves in serious trouble because of the mismanagement of risk speaks for the contrary.

A number of the companies tested, like MTN, Sabmiller, Sappi, Sasol and Oceana group disclosed in great depth the regular review of their risk management process, whilst most of the others merely generally stated that the process is reviewed regularly.

#### **6.4.3 Risk strategy and policies**

As discussed in chapter 2, the events surrounding Enron have shaken the audit industry and the eyes of the business world are on what audit firms will do in order to ensure that audit independence is not compromised (Deloitte, 2003). Numerous pages of possible solutions to this problem could be generated but that really addresses only one half of the issue. The more important other half lies in the way that businesses are run and managed, and how risks faced by companies, are managed. The Enrons, Barings Bank, Saambou Bank and Unifers of this world will keep occurring until proper risk management is a high priority for every company director, manager and employee. Regulations like King II, Turnbull and Basel all have the same objective.

**To protect shareholders and public interest from businesses which are not well managed.**

The majority of the companies tested (74 or 93%) disclosed in their annual report that the Board of directors is accountable for establishing appropriate risk and control policies, but very few of them said anything about their risk strategy or what they consider to be their strategic risks.

#### **6.4.4 Risk management communication**

King II requires that the Board of directors is accountable to communicate appropriate risk and control policies through the organization. As discussed in chapter 2, one very important aspect of risk management is, that it should be practised throughout the company by all staff in their day-to-day activities, but it remains the responsibility of the Board of directors. Most of the companies tested, did not disclose anything about their responsibility to communicate the established risk and control policies to the employees, so that it can be implemented into the day-to-day activities, where appropriate.

Effective risk management is dependent on commitment and should start at the top of the company and filter down to the lowest level. King II makes the following statement on the culture of control:

“This sets the tone of the company and should be seen as a foundation for all other components of risk management and control in providing the necessary discipline and structure.”

Only 26 of the 80 (33%) did disclose that appropriate risk and control policies are communicated through the organization. Risk management should be a top-down, bottom-up process, to ensure efficiency and effectiveness of risk management throughout the company and if there is not proper communication about the importance of this, as well as what the appropriate policies are, it can have a major impact on the performance of the company.

#### **6.4.5 Effective ongoing process**

Valsamakis (1996:88-100) states, that risk identification is an ongoing process and should never be regarded as an isolated or once-off exercise.

It is important that the process to identify evaluates and manages significant risks, should be in place throughout the year and the annual report should also have a declaration that it was actually in place up to the date of approval of the annual report and the financial statements.

Although 68 (85%) did state that a process is in place, only 6 (7%) of them stated that it was in place up to the date of the approval of the annual report. These were Highveld Steel, MTN, Murray & Roberts, Netcare Holdings, SAB Miller and Pretoria Portland Cement (PPC).

#### **6.4.6 Risk mitigation to ensure achievement of objectives**

Anson and Ma (2003:22) state that risk is an essential part of a competitive economy and that too much risk can be fatal to a company, but too little risk can result in a company missing attractive opportunities and lowering the return on economic capital. Attempts to eliminate all risks, will sacrifice returns without a comparable reduction in risk. For this reason, senior management and the Board of directors of listed companies must find the proper balance between risk and return for their business.

In most of the annual reports 70 (88%) it was disclosed that an adequate system of internal control exists to mitigate significant risks to an acceptable level. Most of the companies also declared that no major breakdowns in internal control occurred that were known to have had a material impact on the reported information.

#### **6.4.7 Opportunity risk**

The literature study revealed that risk is necessary for a business to fulfil its mission and that it isn't a totally negative force that should be avoided at all costs. Risk is one of the most important factors that contribute towards development, because when potentially risky situations occur, new possibilities become evident and improvements can take

place. Risk doesn't just offer danger, but also opportunities and new resources, which can drive innovation and the development of new theories, methods and tools for further enhancement.

Olsson (2002:xiii) quotes that to obtain rewards from opportunities, it is necessary to take risks. He also states, that a basic view is, that it is riskier to operate in emerging markets than in the developed world, largely because they are often characterised by greater economic and political instability and are more vulnerable when external shocks, such as natural disasters, occur. This is, however, no reason to steer clear of these markets because there are higher levels of return on offer for those that understand and can manage risk effectively.

Frost *et al.* (2001:17) say that to be successful, quick action and substantial commitments of resources are demanded. Executives now realise that some of the biggest risks they face, relate to lost opportunities caused by failure to act quickly and decisively enough. From management's perspective, the first step toward clarity is the recognition that each risk issue must be viewed from the following three distinct perspectives:

- Risk as opportunity
- Risk as uncertainty
- Risk as hazard.

In other words, risk management should not be seen as something that needs to be done just to avoid danger, but it must also be used to unlock opportunities.

If considering the importance of lost opportunities, it is actually disappointing that only 59 (74%) of the companies tested, actually stated that their risk management and internal control practices are of such a nature that it contributes to the seizure of new business opportunities.

#### **6.4.8 Reasonable assurance**

According to the King II Report on Corporate Governance (Section 2, chapter 1), the purpose of internal control is to reduce risk to an acceptable level, as some risks do not make economic sense to control. Internal control can thus be defined as a process designed to provide reasonable assurance regarding the achievement of organisational objectives with respect to the following:

- The effectiveness and efficiency of operations
- The safeguarding of the company's total assets
- Compliance with applicable laws, regulations and supervisory requirements
- Supporting business sustainability under normal as well as adverse operating conditions
- The reliability of reporting, and
- Behaving responsibly towards all stakeholders.

Most of the companies (73 or 91%), once again, made a broad-brushed statement that the system of internal control can only provide reasonable, but not absolute assurance against material misstatement or loss.

#### **6.4.9 Continuity business plan**

King II requires that a tested continuity plan must be in place in order to ensure the continuity of the companies' critical activities. The business continuity plan should visualise the effects of a disaster unfolding and should always cater for the worst-case scenario. This should visualise the following (Frost *et al.*, 2001:17):

- The incident stage
- The recovery stage
- The continuity stage.

The aim of the plan should be to

- minimise possible risks to health and safety;
- enable the company to make a quick, co-ordinate, and sound response to any crisis; and
- reduce the long-term damage to the business.

The result of this test was quite shocking, as only 27 (34%) of the companies tested, actually disclosed that they do have a tested business disaster recovery plan in place. The result of non-compliance with this requirement could be, that the business is totally destroyed if disaster struck and a recovery plan is not in place. Therefore, one can only hope that all the companies do in fact have it in place, but just failed to disclose it in their annual reports as recommended by King II.

#### **6.4.10 Reporting and monitoring**

An essential part of the risk management process is the effective and continuous monitoring thereof, as the Board of directors cannot rely solely on the enclosed monitoring processes within the company to discharge its responsibilities. Therefore, it should receive and review reports on the process that constitutes risk management at appropriately considered intervals. The Board of directors is also responsible to ensure that the processes and outcomes surrounding key risks are assessed and documented systematically, at least once a year, for the purposes of making its public statement on risk management. (King II Report on Corporate Governance, Section 2, chapter 2.)

Only a few of the companies tested, disclosed in great depth exactly how their risk management process operates, but 58 (73%) of them did make any kind of a statement that part of the process involves the receipt and review of risk reports and also gave some additional information to assist in the understanding of the risk management processes and system of internal control.

#### 6.4.11 Risk committee

The **risk committee** should consider the risk strategy and policy at operational level, as well as the reporting thereon, whilst the **audit committee** should consider the results of the risk management and internal control processes and the disclosure thereof to the extent that it is concerned with risk management.

Anson and Ma (2003:22-26) state that to run core business effectively, including proper risk management is what creates shareholders value. To discharge these large responsibilities, a Board of directors of directors has the following two choices:

- The Board of directors can form a risk management committee comprising of directors, which would be responsible for reviewing the company's primary financial and operational risks and for overseeing the overall risk from the combination of strategic plans, capital structure and cash flow volatility.
- The Board of directors can form a risk management committee of senior executives, which might be chaired by the chief risk officer. This committee will be responsible for all the risk analyses and reporting for the company and also to present this information, with recommendations, to the company's Board of directors. A logical place for this presentation would be to the Board of director's audit committee.

Only about half of the companies tested, had a risk committee in place separately from their audit committee, but 67 (84%) of them had at least one of the two or both that fulfil the task of risk management on behalf of the Board of directors, although the Board of directors remains responsible for risk management. The other companies tested, had executive committees that fulfil this task. These audit/risk committees all have Board of directors as part of its structure and most of these committees have a director as chairman. This is very encouraging as it proves that the Board of directors accepts that they are responsible and accountable for the risk management process in their respective organisations.

## **6.5 RESEARCH FINDINGS OF THE TYPE OF RISKS THAT ARE COVERED BY THE TESTED COMPANIES AS PER THEIR ANNUAL REPORT**

As mentioned before, the Board of directors is also responsible to ensure that the processes and outcomes surrounding key risks are assessed and documented systematically at least once a year for the purposes of making its public statement on risk management. This should include an estimate of the chance of occurrence, where possible, as well as the quantification of the probable impact and comparison to available benchmarks. King II requires that this assessment should at least address the company's exposure to the following risks:

- Physical and operational risks
- Human resource risks
- Technology risks
- Business continuity and disaster recovery
- Credit and market risks
- Compliance risks.

### **6.5.1 Key risks covered by research**

The annual reports of the selected 80 companies were assessed in as far as they have reported on what types of risk the company has identified and managed appropriately. The key risks that the research covered is listed in Table 6.2. and the results of the research are detailed in Appendix 6.2.

**Table 6.2 Types of risks covered by research**

| <b>TYPES OF RISK</b>                 | <b>PARAGRAPH</b> |
|--------------------------------------|------------------|
| 1. Liquidity risk                    | 6.5.2.1          |
| 2. Credit risk                       | 6.5.2.1          |
| 3. Foreign exchange risk             | 6.5.2.1          |
| 4. Interest rate risk                | 6.5.2.1          |
| 5. Strategic risk                    | 6.5.2.2          |
| 6. Technological risk                | 6.5.2.3          |
| 7. Human resources risk              | 6.5.2.4          |
| 8. Operational risk                  | 6.5.2.5          |
| 9. Disaster recovery risk            | 6.5.2.6          |
| 10. Information technology risk (IT) | 6.5.2.7          |
| 11. Compliance risk                  | 6.5.2.8          |
| 12. Company specific risk            | 6.5.2.9          |

## **6.5.2 Research findings on type of risks covered**

### **6.5.2.1 Financial risks**

As discussed in chapter 5, financial risks arise from negative changes over relatively shorter periods in interest rates, commodity prices, equity prices and foreign currency values. Adverse changes in these factors translate into real losses in shareholder value, although the extent of these losses are depending on the form and magnitude of the company's net cash flow exposure to each of these factors.

The risks that a company is exposed to, will differ from business to business, but in general, financial risks relate to the company's cash flows and the way its operations are financed, coupled with the future uncertainties of financing decisions taken.

Effective financial risk management plays an important role in the development of the control environment, which in turn provides management with the necessary certainty that the company will achieve its goals within an acceptable degree of residual risk (Marx *et al.*, 2003:4-24).

For purposes of this survey, these risks comprised of-

- liquidity risk;
- credit risk;
- foreign exchange risk; and
- interest rate risk.

Of all the risk types, financial risks were best dealt with in the annual reports of all the companies. A total of 83% of the companies tested, disclosed how they dealt with liquidity risk, whilst all 80 (100%) of them dealt with credit, foreign exchange and interest rate risk where applicable.

#### **6.5.2.2 Strategic risk**

Corporate risk is typically regarded as equivalent to financial risk, which is wrong, because financial risk is only one element of a company's risk profile. Other risks include change risk, operational risk and unforeseeable risk. Taken together, they can be classed as strategic risk.

As discussed in detail in chapter 3, companies spent most of their efforts towards risk management in managing operational and financial risk, resulting in the importance of strategic risk management often to be underestimated. Risk and strategy are interwoven and a strategy can never be formulated without formulating a risk profile, nor can it be implemented without managing risks. In practice, however, it is often the case.

Many efforts are spent on analyzing a situation before formulating a strategy, but once the decision on what strategy to follow has been made, risk is largely forgotten. According to one of the greatest thinkers on strategy, Carl von Clausewitz, probability (and hence risk) is one of the most important factors in a strategy. The purpose of strategic risk management is to provide the missing link between strategy and risk (Emblemsvag : 2003).

In Chapter 3 it was stated, that strategic risk management takes into account both the long- and short-term risk management requirements of the company and interweaves them into an integrated risk management plan of action. From the literature study it became evident that strategic risk management should be a major part of the whole risk management process in a company.

Therefore, it is quite disappointing that only 30 (38%) of the companies tested, reported in their annual reports that they deal with strategic risk management. Only one of them, Barloworld Limited, also briefly listed what they consider their strategic risks are, and how they deal with it.

From this the conclusion can be made that companies are spending all their time and efforts on the management of short- to medium-term risks and totally understate the importance of the longer-term risks.

#### **6.5.2.3 Technological risk**

Technological risk, especially with the increasing tempo of technology changes today, increasingly becomes a major risk area in most companies, but in some more than in others. Especially companies which are largely dependent on electronic devices in one or other form, are very vulnerable and should ensure that they do manage technological risks as effectively as possible.

The survey revealed that only 34 (43%) of the companies tested, disclosed that they are specifically dealing with technological risk issues. Once again the conclusion can be made that companies are dealing with only the risks where mitigation is easier, for example, financial risks or risks that can be mitigated by taking out insurance cover.

#### **6.5.2.4 Human resources risk**

From the literature study done in Chapter 4 it was evident that the continuity of an operation depends as much on the “continuity” of the people, as it depends on the continuity of the physical assets and human resources are the ultimate foundation and driving forces of an organization.

Frost *et al.* (2001:133-139) state that if a culture exists where people are unmotivated, the ability of the company to deliver the service effectively would be queried. With a strong emphasis on tools, techniques and methodology to quantify risk, risk management methods had approached risk from a purely technical point of view for a long time, which can end up in one-sided risk management practices. A too big emphasis on quantification, control and “auditable” measures can result in managers being unaware of people-related problems, which can have a serious impact on how effectively risk is managed. These aspects are often ignored, because they are not so easy to quantify. There is proof that people factors do detract from normal risk management approaches, such as the creation and maintenance of a risk management framework.

From the literature study done (Chapter 4), the conclusion was drawn that people risk management should be integrated into the traditional risk management approaches, but that managers are not comfortable in addressing people risks. The reason for this could be that they seem subjective and not easy to measure and manipulate, such as is the case with other technical risks.

Only 47 (59%) of the companies tested, disclosed that human resources risk management actually forms part of their risk management program and although all of the tested companies did state that they conform to King II, they did not disclose much about what type of risks they manage. The conclusion drawn about human resources risk management proves to be correct and that is that managers are still not comfortable in addressing people risks.

#### **6.5.2.5 Operational risk**

As discussed in detail in Chapter 4, operational risk can broadly be defined as the risk of loss due to actions on or by people, processes, infrastructure or technology, which have an operational impact, including fraudulent activities. Although this is one of the biggest risk areas, most companies do not traditionally manage it in a sound, organised way. Only in the last few years have companies introduced operational risk departments. There was a tendency to consider operational risk as something closely associated with operations, but this is now changing, partly as a result of the faster pace of change, but also due to increased awareness.

To conclude: operational risk can be seen as any risk that arises from inadequate or failed internal processes, people, and systems or from external events that can have an impact on the objectives of the company, which can be either positive or negative. According to the literature study (Chapter 4), operational risk can be seen as a combination of different risks. Seen from this perspective, it could be expected that because most of the companies tested, did not disclose much information of the type of risks they manage, that they would at least disclose that they manage operational risks, which could include a lot of different risks. Disappointingly, only 48 (60%) of the companies tested, disclosed that they specifically manage operational risks.

#### **6.5.2.6 Disaster recovery risk**

As stated in paragraph 6.4.9, King II requires that a tested continuity plan must be in place in order to ensure the continuity of the companies' critical activities. Although this is a very important aspect of proper risk management, only 27 (34%) of the companies tested, did disclose in their annual reports that they actually do have tested disaster recovery plans in place. Once again, this result is very disappointing and one could only hope that they all have disaster recovery plans in place, but just didn't find it necessary to disclose this fact to the stakeholders of the company.

#### **6.5.2.7 Information technology risk (IT risk)**

As discussed in Chapter 4, the number and scale of technology risks almost increase on a daily basis. Very often the systems required to support business activities are not in place because systems are not updated to meet business needs.

IT facilities have become an integral part of almost every business and when computer systems go down for significant lengths of time, it can affect customer service levels adversely. Most major companies have invested vast amounts of money in IT over the past few years and in order to optimize IT investment, companies need to think about an effective IT risk management strategy. The major areas that should be covered by IT risk management was discussed in Chapter 4, par. 4.7.2.5.1.inc, are the following.

Once again, very disappointingly, only 37 (46%) companies disclosed in their annual reports that their risk management process covers IT risks. In today's global environment, the dependency on information technology systems is ever-increasing and it can result in huge losses if IT risks are not properly managed.

#### **6.5.2.8 Compliance/legal risk**

Olsson (2003:56) defines legal/compliance risk as "... the risk of non-compliance with legal or regulatory requirements". Most of the laws are general laws that apply to all companies, e.g. the employment law, health and safety law and environmental legislation, but others are industry-specific. The risk for companies is that the volume and complexity of the law and regulations have increased significantly in recent years and on top of that, operations have spread nationally and internationally, increasing the requirements that must be met.

From the companies tested, 44 (55%) disclosed that they actually manage their compliance risks. There are a large number of regulations, which are applicable to all businesses, e.g. health and safety regulations, labour regulations and environmental laws. Therefore, the expectancy is that a 100% of the companies tested, should manage their compliance risks. So once again, one hopes that they actually do manage it, but just failed to report on it in their risk reports in the annual report.

#### **6.5.2.9 Company specific risks**

Most businesses should have a few risks, which are applicable only to that specific business. In this research, only 44 (55%) of the selected companies disclosed a list of what they consider their most significant risks to be.

### **6.6 SUMMARY AND CONCLUSIONS FROM THE EMPIRICAL RESEARCH**

As stated before, research done by Griffiths (2001:249-257) on compliance with Corporate Governance principles in the late-1990's and early 2000's, proved that company directors did not take the issue of internal control and risk management very seriously. Out of the 100 companies surveyed by him, only 6 included a statement by directors regarding the effectiveness of their company's internal control structure and only 3 of them also stated, that their system of internal control were adequate.

Since then, King II was published in 2002 and companies came a long way to improve their compliance with Corporate Governance requirements. Although the disclosure on internal control and risk management practices has improved, as can be seen in the survey done earlier in this chapter, only 10 (12%) out of the 80 companies tested, fully complied with all the disclosure requirements on risk management and internal control as recommended in King II. Two major areas of disclosure on risk management still need much attention. The areas where compliance needs serious attention are, disclosure on the communication of risk management practices through the organisation and disclosure on disaster recovery planning. These are very important aspects of effective risk management and it is doubtful whether it can be claimed that risk management practices implemented in the company are effective and adequate, if these two aspects are not fully adhered to.

The second objective was to determine what types of risk the risk management program of the companies tested, covered. This aspect of the survey had a disappointing outcome, as the major part of the companies disclosed information only on how they deal with their financial risks. Only 9 (11%) of the companies dealt with all 12 risk areas that were tested, which is quite a shocking result. As can be seen in the detailed

discussion above, the number of companies that actually did disclose that they also assess other types of risks, ranged between 38% and 60%, which is actually a poor outcome. According to Shough (2003) management need to acknowledge the fact that risk is an inherent part of any organisation's existence. If not dealt with properly, it has the potential to paralyse an otherwise successful growth strategy.

Naidoo (2001) states that one only need to pick up and read the positive statements made in respect of governance practice in the section on Corporate Governance in many companies' annual reports to realise the extent to which some directors pay lip service to their governance. Despite these positive declarations, companies continue to encounter embarrassing governance glitches.

Although a few years have passed since this commentary by Naidoo was published, the question still remains on how well corporate governance practices are implemented in companies in South Africa. Almost all the companies declared in their annual reports that they do comply with the requirements of the King II report, but they still lack the in depth declarations in respect of risk management. This raises a question as to the quality of the compliance to King II. A survey done by McKinsey suggests that analysts are paying significant attention to companies' risk management statements. According to Deloitte, a UK report named "No Surprises", argued that better risk reporting assists companies in managing investor expectations which ultimately helps them to obtain capital at a lower cost (Risk Management Summit Report, Deloitte, 2003).

Most of the companies did include a risk management report as part of their annual report and they did make the necessary statements about responsibility for internal control and risk management, but King II also requires that the risk management practice of listed companies should cover at least the risks as stated in paragraph 6.5.1. If the result of this survey reflects what actually happens in companies in respect of risk management, a lot of work needs to be done to get risk management up to an acceptable level. Business is largely based on taking informed risks, but if risks are not properly managed, it can result in huge losses or even in closure. The indication is still there that executive management currently view risk management as more of a compliance issue and have not yet realised its value as a business tool.

If one looks at it in practice, it means that risk management is a managerial function, which has the purpose of protecting the organisation in total (people, assets, profits) against the negative consequences of pure risk in order to reduce the severity and variability of losses. Risk management seemed highly management-orientated, but it becomes a meaningless academic issue if not put into practice (Valsamakis *et al.*, 1996:14).

The literature study showed that if proper risk management policies are not in place, it could result in the collapse of the business. Based on the outcome of the empirical research, it seems that risk is still not managed effectively. It is surprising as experts are continuously contracted, at large cost, by companies to advise them on ways to improve business performance, whilst it can be largely improved by implementing proper risk management policies. General declarations about risk management practices are made in the annual report, but no further information is given as to the exact risk areas covered by the companies tested. Only a few of them are perceived to be in full control of all known risks to their specific businesses as they properly disclosed their risk management practices in their annual reports.

## **CHAPTER 7**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **7.1 INTRODUCTION**

##### **7.1.1 General objectives**

The primary objective of this dissertation was to do a detailed investigation of the disclosure of risk management practices in listed companies in South Africa. In order to understand why proper disclosure is important, it was necessary to do a detail investigation into the different sources of risks companies are exposed to and the measures available to manage these risks, in order to determine the importance of risk management in the subsequent successes or failures of companies. The secondary objective was to present an overview of the types of risks that are dealt with by these companies. The literature study showed that there are a lot of different risks, which need to be managed in order to ensure business success. The objectives was achieved by an analyses and evaluation of the Corporate Governance and Risk Management reports included in the selected listed companies' annual reports, after a detailed literature study was performed to determine what is considered to be appropriate disclosure.

##### **7.1.2 Specific objectives**

The specific objectives of this dissertation were to identify, investigate, analyse, and evaluate the following:

- The disclosures on risk management in annual reports of listed industrial companies in South Africa in order to assess the compliance with King II.
- Types of risks covered in annual reports of listed industrial companies in South Africa to obtain an indication of the importance of the relevant risks.
- The history and development of risk management.

- The importance of risk management.
- Strategic risks and strategic risk management.
- Operating risks and operating risk management.
- Financial risks and financial risk management.
- Recommendations on effective risk management practices.

## **7.2 SUMMARY**

To achieve the objectives set for this research it was necessary to firstly do a detail literature study of the relevance and importance of risk management, as well as what it entails. The study commenced, for completeness sake, with a brief look into the history of risk management. As described in Chapter 2, the modern understanding of risk originated from the Hindu-Arabic numbering system that reached the West seven to eight hundred years ago, but the serious study of risk already began during the Renaissance. In the ancient worlds people managed to make decisions with no real understanding of risk or the nature of decision-making. In modern days we rely less on superstition and tradition, because our understanding of risk enables us to make decisions in a rational mode.

The findings of the multi-disciplinary literature study, as detailed in Chapter 2, proved that there is not one single definition of risk and risk management. Despite the different definitions, they all mean the same thing in the end and that is, that risk usually refers to the possibility that some adverse event, with an uncertain outcome, can occur. In practice, the concept of risk is usually perceived as something negative, because it is expected that the actual outcome of the event will be negative. From the literature study it is evident that risk can generate threats of losses, but it can also create opportunities for gains. Effective risk management is not only to avoid risk at all costs, but also to achieve a proper balance between risks incurred and potential returns to shareholders. This requires Board of directors to ensure that there are systems in place that effectively monitor and manage these risks with a view to the long-term viability of the company.

The following three main sources of risks were identified in Chapter 2:

- Strategic risks
- Operational risks
- Financial risks.

Strategic risk, as described in Chapter 3, involves macro-factors that affect the company and the value to its shareholders. A common feature of these risk factors, which could be economic or political and also local or international, is that they are long-lived and can, therefore, affect the value of the company for many years. Companies spend most of their efforts towards risk management in managing operational and financial risks and tend to ignore the importance of strategic risk management. Risk and strategy are interlinked and a strategy can never be formulated without formulating a risk profile, nor can it be implemented without managing risks. However, it is often what is done. Many efforts are going into analyzing a situation before formulating a strategy, but once the decision on what strategy to follow has been made, it seems that risk is largely forgotten.

Operational risks, as described in Chapter 4, includes a combination of resources such as people, skills, methods, equipment, materials, infra-structure, technology and business environment, which results in a desired output. The huge losses incurred by large companies, such as Worldcom, Enron and Parmalat in recent years, can largely be attributed to the ineffective management of operational risk, broadly defined as the danger of loss resulting from inadequate or failed internal processes, people or systems, or from external events. Operational risk is one of the biggest risk areas, the latter, which was not traditionally managed as effectively. Only in recent years have companies introduced operational risk management departments as a result of the faster pace of change, but also due to increased awareness of the importance of operational risk management.

Financial risks, as described in Chapter 5, generally relate to the company's cash flows and the way its operations are financed, coupled with the future uncertainties of financing decisions taken. These risks include liquidity, credit, currency, interest rate

and gearing risks. The aim of financial risk management is to provide and maintain capital for a company in an ever-fluctuating capital market environment. The success of the entity to deal with financial risk will depend on how flexible it is to adjust to these unforeseen changes in this volatile environment. Not managing these variables effectively, could result in the total collapse of the company. The important factor here, is that management should have pre-established criteria against which they can measure financial risks in order of priority, to establish the best method to deal with it.

The results of an empirical research done on the annual reports of 80 listed industrial companies in South Africa, were described in Chapter 6. The aim of this empirical research was to assess the adequacy of the disclosure on risk management policies, to form an opinion on the implementation of effective risk management practices, as recommended by King II, by way of an evaluation of the corporate governance and risk management reports included in the annual reports of the selected companies. The results of the research indicated that although companies came a long way to improve their compliance with corporate governance requirements in respect of risk management, only 10 (12%) of the 80 companies tested, claimed to fully comply with all the disclosure requirements of King II.

Two major areas of disclosure on risk management still specifically need a lot of attention. The areas where compliance needs serious attention are disclosure on the communication of risk management practices through the organisation and disclosure on disaster recovery planning. These are very important aspects of effective risk management and it is doubtful whether it can be claimed that risk management practices implemented in the company are effective and adequate if these two aspects are not fully adhered to.

Another objective was to determine what type of risks exists in modern business, which should be dealt with to ensure business success. This was done by evaluating the disclosure on the types of risks covered by the risk management program of the tested companies, in order to obtain an indication of the importance of risk management in these companies. This aspect of the survey had a disappointing outcome, as the major part of the companies disclosed information only on how they deal with their financial

risks. Only 9 (11%) of the companies tested, dealt with all 12 risk areas tested, which is a quite shocking result. As can be seen in the detailed discussion in Chapter 6, the number of companies that actually did disclose that they also deal with other types of risks, ranged between 38% and 60%, which is actually a poor outcome. The conclusion can be made that although companies declare in their annual reports that they do comply with the requirements of the King II report, they still lack the in-depth declarations in respect of risk management.

### **7.3 CONCLUSION AND RECOMMENDATIONS**

In order to meet the objectives set for this study, a detailed study of the total process of risk management, including the different sources of risk and the necessary measures to deal with these risks, was performed, and finally an assessment of the disclosure on risk management practices in listed companies in South Africa was done by evaluating the corporate governance and risk management reports included in the annual reports of these companies. From this detailed study, the conclusion can be made that, although risk is a crucial part of a competitive economy, too much risk can be fatal to a company, whilst too little risk can result in a company to miss profitable opportunities. Attempts to eliminate all risks, will sacrifice returns without a comparable reduction in risk and, therefore, senior management and the Board of directors of directors should seek a perfect balance between risk and return for their particular business. This can be achieved by implementing an effective framework for risk management. The Board of directors, who is responsible for the full process of risk management, should set the strategic direction of the risk management process in the company.

As seen in the literature study, the purpose of strategic risk management is to provide the missing link between strategy and risk. Risk managers who adopt a strategic risk management approach, must tailor their programs to meet their company's needs as there is no one single way of strategic risk management. In practice, however, this is often what is done. Many efforts are going into analyzing a situation before formulating a strategy, but once the decision on what strategy to follow has been made, risk is largely forgotten. Once the risk strategy is set, the risk management framework can be implemented in order to identify, analyse, evaluate and assess operational and financial

risks, to decide on the treatment of the risks, to implement the treatment and continuously review and to monitor the effectiveness of the treatment against pre-determined standards, before the whole process starts again.

As important as strategic risk management, is operational risk management, which could be seen as an event or a condition that will have a positive or negative impact on a company's objectives, if it occurs. The common characteristics are that it represents a future event, it has a probability of occurring and the consequences of the risk are unplanned for. The future events can be categorised as opportunity-focused (positive risk) if their consequences are favourable, or as threat-focused (negative risk) if their consequences are unfavourable. It is recommended that operational risks should not be avoided at all costs, but a suitable balance between the threats originating from and opportunities created by risk should be found in order to maximise shareholders' wealth. In recent years, prominent companies collapsed as a result of not managing operational risks effectively. The consequences of ineffective operational risk management could be disastrous and even if it does not result in the total collapse of the company, it will definitely damage the reputation of the company, resulting in damage to market share or brand value or the loss of competitive advantage after an unexpected shock.

From the empirical research done as part of this study and discussed in Chapter 6, the risk source that was managed best, according to the annual reports of the selected companies, was financial risk. Although many different definitions exist for financial risk, it can be summarised as the risk that arises from negative changes over relatively short periods in interest rates, commodity prices, equity prices and foreign currency, resulting in the inability to provide and maintain capital for a company in an ever-fluctuating market environment. If a well-established process is not in place, adverse changes in these factors translate into real losses in shareholder value, although the extent of these losses depend on the form and magnitude of the company's net cash flow exposure to each of these factors.

The recommendation is that the priority should not be to avoid all financial risks, because most of them can be controlled or mitigated. The important factor here, is that management, as part of their risk management strategy and framework, should have

pre-established criteria against which they can measure financial risks in order of priority, to establish the most effective method to deal with it. The purpose of financial risk management is to ensure flexibility to deal with fluctuations in a volatile market environment, in order to provide and maintain the optimum capital levels, which will result in the pre-determined objectives of the company to be met. Companies should aim to improve cash flow management during good times in order to be able to capitalise on opportunities that become available, especially from companies who were not as prudent and pro-active.

The overall conclusion that can be drawn from the empirical research done is that if the disclosure of risk management policies in the annual reports of the selected companies is a true reflection of the actual status of the implementation of proper risk management systems in these companies, a lot of effort is still required to comply with what is considered to be necessary for the long-term success of the company. Although the majority of the companies tested did include a risk management report as part of their annual report and did present the necessary statements about responsibility for internal control and risk management, King II also requires that the risk management practice of listed companies should at least cover the risks as stated in paragraph 6.5.1. It is recommended that all listed companies should include a detailed risk management report in their annual reports, which covers each and every recommendation made in King II, including detail about the types of risks that are dealt with by the company's risk management process. This can only improve shareholders trust, which in turn will result in continued business success and the maximising of shareholders value.

## **7.4 FURTHER RESEARCH**

The following areas requiring further research were identified.

- (a) Further empirical research into the risk management practices of listed companies in South Africa needs to be done, to determine whether the risk areas that are so poorly covered in the annual reports of the selected companies, are in fact part of their risk management program and that they merely failed to report

on them, or maybe they really do not deal with the most important risks in business today.

- (b) Historical research into the relationship between risk management and share price information in listed companies in South Africa.
- (c) A survey into the understanding and importance of risk management by Board of directors, senior management, employees, customers and suppliers.
- (d) Research into the contribution of failure to implement proper risk management practices on company failure.
- (e) Research into the risk management disclosure practices of international companies.

## **7.5 CLOSING REMARK**

Business is largely based on taking informed risks, but if risks are not properly managed, it could result in huge losses or even closure. Risk management should have the purpose of protecting the organisation in total against the negative consequences of pure risk, in order to reduce the severity of losses, but also to explore favourable opportunities created by risk. The indication is still there, that executive management currently views risk management as more of a compliance issue and have not yet realised its value as a business tool.

After the detailed literature study was completed and the results from the empirical research were evaluated, the following statement can be made with reference to the hypothesis as stated in Chapter 1:

- listed companies do not fully meet the disclosure requirements on risk management in accordance with King II,
- listed companies do not cover all the risks as suggested by King II in it's risk management practice; and

- listed companies have only partially implemented proper formalised risk management processes in accordance with King II.

## APPENDIX 6.1 RESULTS OF TESTS DONE ON SELECTED COMPANIES

### TESTS DONE AS PER CHAPTER 6, TABLE 6.1:

| TEST                                                                                                                                                                | COMPLIANCE REQUIREMENT                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1. Refer par. 6.4.1</b><br>Responsibility of the Board of directors for the full process of risk management in the company                                       | Is it disclosed in the annual report that the Board of directors is accountable for the process of risk management and the system of internal control?                                                                       |
| <b>2. Refer par. 6.4.2</b><br>The Board of directors should periodically evaluate the effectiveness of the risk management process.                                 | Is it disclosed in the annual report that the process of risk management and the system of internal control are regularly reviewed for effectiveness?                                                                        |
| <b>3. Refer par. 6.4.3</b><br>The Board of directors should set risk strategy and policies in liaison with the executive directors and senior management.           | Is it disclosed in the annual report that the Board of directors is accountable for establishing appropriate risk and control policies?                                                                                      |
| <b>4. Refer par. 6.4.4</b><br>Risk management policies should be clearly communicated to all employees.                                                             | Is it disclosed in the annual report that the Board of directors is accountable for communicating appropriate risk and control policies through the organisation?                                                            |
| <b>5. Refer par. 6.4.5</b><br>The company should have implemented an effective ongoing process to identify, measure and proactively manage risk.                    | Is it disclosed in the annual report that a process for identifying/evaluating/managing significant risks was in place throughout the year under review and was it in place up to the date of approval of the annual report? |
| <b>6. Refer par. 6.4.6</b><br>A comprehensive system of control that is focused on risk mitigation should exist, to ensure achievement of objectives.               | Is it disclosed in the annual report that an adequate system of internal control exists to mitigate the significant risks to an acceptable level?                                                                            |
| <b>7. Refer par. 6.4.7</b><br>The organisation's risk management and internal control practices should contribute to the development of robust business operations. | Is it disclosed in the annual report that the system of internal control is designed to manage, rather than eliminate, risk of failure or opportunity risk?                                                                  |

|                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>8. Refer par. 6.4.8</b></p> <p>The risk management and internal control model should provide the Board of director's reasonable assurance on the effectiveness and efficiency of the organisation, the safeguarding of its assets, the compliance with laws and regulations and the reliability of its reporting.</p> | Is it disclosed in the annual report that the system of internal control can only provide reasonable, but not absolute assurance?                                  |
| <p><b>9. Refer par. 6.4.9</b></p> <p>A documented and tested business plan should exist to ensure continuity of business critical activities.</p>                                                                                                                                                                           | Is it disclosed in the annual report that a documented and tested business continuity plan exists to ensure continuity of business critical activities?            |
| <p><b>10. Refer par. 6.4.10</b></p> <p>The Board of directors should regularly receive and review reports on the risk management process in the organisation.</p>                                                                                                                                                           | Is any additional information that can assist in the understanding of the risk management processes and system of internal control disclosed in the annual report? |
| <p><b>11. Refer par. 6.4.11</b></p> <p>The Board of directors should appoint a committee to assist it in discharging its responsibilities for risk management.</p>                                                                                                                                                          | Has a risk or audit committee been appointed in the organisation?                                                                                                  |

## Keys

|   |                                                                      |
|---|----------------------------------------------------------------------|
| ✓ | Company <b>did</b> comply with this test in their annual report.     |
| x | Company <b>did not</b> comply with this test in their annual report. |

The outcome of the tests is listed below. The numbers in the first row of the table below refers to the question with the same number in the table at the top of this report.

| Company Name              | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---------------------------|---|---|---|---|---|---|---|---|---|----|----|
| ABI Ltd (2004)            | ✓ | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | x  |
| Advtech group (2003)      | ✓ | ✓ | ✓ | x | ✓ | ✓ | x | ✓ | ✓ | ✓  | ✓  |
| AECI Ltd (2005)           | ✓ | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | x | ✓  | x  |
| Afgri Ltd (2005)          | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |
| African Oxygen (2005)     | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |
| Altech Ltd (2004)         | ✓ | ✓ | ✓ | x | ✓ | ✓ | x | ✓ | x | ✓  | ✓  |
| Assmang Ltd (2005)        | x | ✓ | x | x | x | ✓ | x | ✓ | x | x  | ✓  |
| Aspen Holdings Ltd (2005) | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |
| Aveng (2005)              | ✓ | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |
| AVI (2005)                | ✓ | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | x | x  | ✓  |
| Barloworld (2005)         | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |
| Bell equipment (2003)     | ✓ | x | x | x | x | ✓ | x | ✓ | ✓ | x  | ✓  |
| BHP Billiton (2005)       | x | ✓ | ✓ | x | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  |

|                                         |          |          |          |          |          |          |          |          |          |           |           |
|-----------------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| Bidvest group Ltd (2004)                | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| <b>Company Name</b>                     | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> |
| Busby Group (2005)                      | x        | x        | x        | x        | x        | ✓        | x        | ✓        | x        | x         | x         |
| Business connexion (2005)               | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | x         | ✓         |
| Bytes Techn. group (2004)               | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | ✓         | ✓         |
| Cargo Carriers Ltd (2004)               | x        | ✓        | x        | x        | x        | ✓        | x        | ✓        | x        | x         | ✓         |
| Ceramic Ind. Ltd (2005)                 | ✓        | ✓        | ✓        | x        | x        | ✓        | x        | ✓        | x        | x         | ✓         |
| City Lodge Hotels Ltd (2004)            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓        | x        | ✓         | ✓         |
| Concor Ltd (2005)                       | ✓        | ✓        | ✓        | x        | x        | ✓        | x        | ✓        | x        | x         | x         |
| Connection Group Hold.(2004)            | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Datatec (2004)                          | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | x         |
| Delta Electrical Ind Ltd (2005)         | ✓        | ✓        | ✓        | x        | x        | x        | ✓        | ✓        | x        | ✓         | x         |
| Dimension data (2005)                   | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | x         | ✓         |
| Discovery Health (2004)                 | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Distell (2005)                          | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Dorbyl (2005)                           | x        | x        | ✓        | x        | x        | x        | x        | ✓        | x        | x         | ✓         |
| Edcon (2004)                            | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Enviroserv Holdings Ltd (2004)          | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Faritec Holdings Ltd (2004)             | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | ✓        | ✓        | x         | x         |
| Grindrod Ltd (2004)                     | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Grintek Ltd (2004)                      | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | x        | x        | x         | ✓         |
| Group 5 (2005)                          | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | x         | ✓         |
| Highveld steel and van.(2005)           | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | x         |
| Illovo Sugar (2005)                     | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Imperial Holdings Ltd(2004)             | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Iscor Limited (2004) (Now Mittal Steel) | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| IST Group (2004)                        | x        | ✓        | ✓        | x        | ✓        | x        | x        | ✓        | x        | x         | ✓         |
| Italtile Ltd (2004)                     | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| JD Group (2005)                         | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | x         | ✓         |
| Johnnic (2005)                          | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| L.A.Group Ltd (2004)                    | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | ✓        | x        | x         | ✓         |
| Masonite (Africa) Ltd (2005)            | ✓        | ✓        | ✓        | ✓        | ✓        | x        | x        | x        | ✓        | ✓         | x         |
| Massmart (2003)                         | x        | ✓        | ✓        | x        | ✓        | x        | ✓        | x        | x        | ✓         | ✓         |
| Medi-Clinic Corp. Ltd (2004)            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Metorex Ltd (2004)                      | ✓        | x        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | x         | ✓         |
| Metro cash and carry (2003)             | x        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x         | ✓         |
| Mr Price (2005)                         | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| MTN Group Ltd (2004)                    | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Murray and Roberts (2005)               | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Nampak Ltd (2003)                       | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | ✓        | x        | ✓         | ✓         |
| Naspers (2005)                          | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Netcare Holdings Ltd (2005)             | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| New Clicks Holdings (2003)              | ✓        | ✓        | ✓        | x        | ✓        | x        | x        | ✓        | ✓        | ✓         | x         |
| Oceana Group Ltd (2005)                 | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Omnia (2004)                            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Pick 'n Pay (2004)                      | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | ✓        | x        | ✓         | ✓         |
| PPC (2005)                              | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Relyant retail Ltd (2004)               | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Remgro Ltd (2004)                       | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Reunert (2005)                          | ✓        | ✓        | ✓        | x        | ✓        | x        | ✓        | ✓        | x        | x         | ✓         |
| SAB Miller (2005)                       | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Sappi Ltd (2005)                        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | x         |
| Sasol (2005)                            | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Seardel Inv. Corp Ltd (2004)            | x        | ✓        | x        | x        | x        | x        | x        | x        | ✓        | x         | x         |
| Shoprite Hold. Ltd (2004)               | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Steinhoff Int. Hold. (2004)             | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |

|                                |          |          |          |          |          |          |          |          |          |           |           |
|--------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| Sun international (2005)       | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| <b>Company Name</b>            | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> |
| Super group (2005)             | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| The Bidvest Group Ltd (2005)   | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Tiger Brands (2005)            | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Tiger Wheels Ltd (2004)        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Tongaat-Hulett Group (2003)    | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | x        | ✓        | ✓         | ✓         |
| Transpaco Ltd (2005)           | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Truworths international (2004) | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Value Group Ltd (2004)         | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         |
| Venfin (2004)                  | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         |
| Wesco Investments Ltd          | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | x        | x        | x         | ✓         |
| Wooltru Ltd (2005)             | x        | ✓        | x        | x        | x        | x        | x        | x        | x        | x         | ✓         |
| <b>TEST RESULTS</b>            |          |          |          |          |          |          |          |          |          |           |           |
| ✓                              | 70       | 76       | 74       | 26       | 68       | 70       | 59       | 73       | 27       | 58        | 67        |
| x                              | 10       | 4        | 6        | 54       | 12       | 10       | 21       | 7        | 53       | 22        | 13        |
| Total                          | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80        | 80        |
| ✓                              | 88%      | 95%      | 93%      | 33%      | 85%      | 88%      | 74%      | 91%      | 34%      | 73%       | 84%       |
| x                              | 12%      | 5%       | 7%       | 67%      | 15%      | 12%      | 26%      | 9%       | 66%      | 27%       | 16%       |

## APPENDIX 6.2 RESULTS OF TEST DONE ON TYPES OF RISK DEALT WITH IN ANNUAL REPORT

The following risks were covered by the test:

| Number | Type of risk                     | Dealt with in: |
|--------|----------------------------------|----------------|
| 1.     | Liquidity risk                   | Par. 6.5.2.1   |
| 2.     | Credit risk                      | Par. 6.5.2.1   |
| 3.     | Foreign exchange risk            | Par. 6.5.2.1   |
| 4.     | Interest rate risk               | Par. 6.5.2.1   |
| 5.     | Strategic risk                   | Par. 6.5.2.2   |
| 6.     | Technological risk               | Par. 6.5.2.3   |
| 7.     | Human resources risk             | Par. 6.5.2.4   |
| 8.     | Operational risk                 | Par. 6.5.2.5   |
| 9.     | Disaster recovery risk           | Par. 6.5.2.6   |
| 10.    | Information technology risk (IT) | Par. 6.5.2.7   |
| 11.    | Compliance risk                  | Par. 6.5.2.8   |
| 12.    | Company specific risk            | Par. 6.5.2.9   |

### Keys

|   |                                                                 |
|---|-----------------------------------------------------------------|
| ✓ | Company <b>did</b> report on this risk in their annual report.  |
| x | Company <b>did not</b> report on this risk their annual report. |

The outcome of the tests is listed below. The numbers in the first row of the table below refers to the type of risk with the same number at the top of this report.

### OUTCOME OF TEST ON TYPES OF RISK COVERED BY SELECTED COMPANIES

| Company Name       | 1 | 2 | 3   | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------------|---|---|-----|---|---|---|---|---|---|----|----|----|
| ABI Ltd            | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| Advtech group      | ✓ | ✓ | ✓   | ✓ | x | x | x | x | ✓ | x  | x  | x  |
| AECI Ltd           | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Afgri Ltd          | ✓ | ✓ | ✓   | ✓ | ✓ | x | x | ✓ | x | x  | x  | ✓  |
| African Oxygen Ltd | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | x  | ✓  | ✓  |
| Altech Ltd         | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | x  |
| Assmang Ltd        | ✓ | ✓ | n/a | ✓ | x | x | x | x | x | x  | x  | x  |
| Aspen Holdings Ltd | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Aveng              | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| AVI                | x | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Barloworld         | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |

| Company Name                | 1 | 2 | 3   | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|-----------------------------|---|---|-----|---|---|---|---|---|---|----|----|----|
| Bell equipment              | ✓ | ✓ | ✓   | ✓ | x | x | x | x | ✓ | x  | x  | x  |
| BHP Billiton                | ✓ | ✓ | ✓   | ✓ | ✓ | x | ✓ | x | x | x  | ✓  | ✓  |
| Bidvest Group Ltd           | x | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | x  | ✓  | ✓  |
| Busby Group                 | ✓ | ✓ | ✓   | x | x | x | x | x | x | x  | ✓  | ✓  |
| Business connexion          | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Bytes Technology group      | x | ✓ | ✓   | ✓ | x | x | x | x | x | ✓  | x  | x  |
| Cargo Carriers Ltd          | x | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Ceramic Ind. Ltd            | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| City Lodge Hotels Ltd       | x | ✓ | ✓   | ✓ | x | x | ✓ | x | x | x  | ✓  | ✓  |
| Concor Ltd                  | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Connection Group Holdings   | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Datatec                     | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | x  | x  |
| Delta Electrical Ind Ltd    | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Dimension data              | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| Discovery Health            | ✓ | ✓ | n/a | ✓ | x | x | x | x | x | x  | ✓  | ✓  |
| Distell                     | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Dorbyl                      | x | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Edcon                       | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Enviroserv Holdings Ltd     | ✓ | ✓ | ✓   | x | x | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| Faritec Holdings Ltd        | x | ✓ | n/a | ✓ | x | x | x | x | ✓ | x  | x  | x  |
| Grindrod Ltd                | ✓ | x | ✓   | ✓ | x | x | x | ✓ | x | ✓  | x  | x  |
| Grintek Ltd (2004)          | ✓ | ✓ | ✓   | ✓ | x | x | ✓ | ✓ | x | x  | ✓  | ✓  |
| Group 5                     | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | x  | ✓  | ✓  |
| Highveld steel and vanadium | ✓ | ✓ | ✓   | ✓ | x | x | x | ✓ | x | x  | ✓  | ✓  |
| Illovo Sugar                | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | x  | ✓  | ✓  |
| Imperial Holdings Ltd       | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | x  | x  |
| Iscor Limited               | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| IST Group                   | ✓ | ✓ | ✓   | ✓ | x | x | x | ✓ | x | x  | x  | x  |
| Italtile Ltd                | ✓ | ✓ | ✓   | ✓ | x | x | ✓ | x | x | ✓  | ✓  | ✓  |
| JD Group                    | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Johnnic                     | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| L.A.Group Ltd               | ✓ | ✓ | ✓   | ✓ | ✓ | x | x | x | x | x  | x  | x  |
| Masonite (Africa) Ltd       | ✓ | ✓ | ✓   | ✓ | x | x | x | x | ✓ | x  | ✓  | ✓  |
| Massmart                    | ✓ | ✓ | ✓   | ✓ | x | x | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Medi-Clinic Corp. Ltd       | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Metorex Ltd                 | ✓ | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |
| Metro cash and carry Ltd    | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | ✓ | ✓  | x  | x  |
| Mr Price                    | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| MTN Group Ltd               | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓  | ✓  | ✓  |
| Murray and Roberts          | ✓ | ✓ | ✓   | ✓ | ✓ | ✓ | ✓ | ✓ | x | x  | ✓  | ✓  |
| Nampak Ltd                  | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Naspers                     | ✓ | ✓ | ✓   | ✓ | x | ✓ | ✓ | ✓ | x | ✓  | ✓  | ✓  |
| Netcare Holdings Ltd        | ✓ | ✓ | ✓   | ✓ | x | x | x | x | ✓ | x  | ✓  | ✓  |
| New Clicks Holdings         | x | ✓ | ✓   | ✓ | x | x | ✓ | x | ✓ | ✓  | x  | x  |
| Oceana Group Ltd            | ✓ | ✓ | ✓   | ✓ | ✓ | x | x | ✓ | ✓ | ✓  | ✓  | ✓  |
| Omnia                       | x | ✓ | ✓   | ✓ | x | x | x | x | x | x  | x  | x  |

| <b>Company Name</b>           | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> |
|-------------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| Pick 'n Pay                   | ✓        | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | x        | x         | x         | x         |
| PPC                           | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x         | x         | x         |
| Relyant retail Ltd            | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | x        | ✓         | x         | x         |
| Remgro Ltd                    | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Reunert                       | ✓        | ✓        | ✓        | ✓        | x        | x        | x        | x        | x        | x         | x         | x         |
| SAB Miller                    | ✓        | ✓        | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | x         | x         | x         |
| Sappi Ltd                     | ✓        | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Sasol                         | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Seardel Inv. Corp Ltd         | ✓        | ✓        | ✓        | ✓        | x        | x        | x        | x        | ✓        | x         | x         | x         |
| Shoprite Holdings Ltd         | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | x         | ✓         | ✓         |
| Steinhoff Int. Holdings Ltd   | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | x         | x         |
| Sun international             | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | x        | ✓         | ✓         | ✓         |
| Super group                   | ✓        | ✓        | ✓        | ✓        | x        | x        | x        | x        | ✓        | x         | x         | x         |
| The Bidvest Group Ltd         | x        | ✓        | ✓        | ✓        | x        | x        | x        | x        | x        | x         | ✓         | ✓         |
| Tiger Brands                  | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Tiger Wheels Ltd              | ✓        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | x        | ✓         | ✓         | ✓         |
| Tongaat-Hulett Group Ltd      | ✓        | ✓        | ✓        | ✓        | x        | x        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Transpaco Ltd                 | x        | ✓        | ✓        | ✓        | x        | ✓        | ✓        | ✓        | x        | ✓         | ✓         | ✓         |
| Truworths international       | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Value Group Ltd               | x        | ✓        | n/a      | ✓        | x        | x        | x        | x        | x        | x         | x         | x         |
| Venfin                        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓        | ✓         | ✓         | ✓         |
| Wesco Investments Ltd         | x        | ✓        | n/a      | ✓        | x        | x        | x        | x        | x        | x         | x         | x         |
| Wooltru Ltd                   | ✓        | ✓        | ✓        | ✓        | x        | x        | x        | x        | x        | x         | x         | x         |
| <b>TEST RESULTS</b>           |          |          |          |          |          |          |          |          |          |           |           |           |
| ✓ Nr of companies             | 66       | 80       | 80       | 80       | 30       | 34       | 47       | 48       | 27       | 37        | 44        | 44        |
| x Nr of companies             | 14       | 0        | 0        | 0        | 50       | 46       | 33       | 32       | 53       | 43        | 36        | 36        |
| <b>TOTAL COMPANIES TESTED</b> | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80       | 80        | 80        | 80        |
| ✓ % of companies              | 83%      | 100%     | 100%     | 100%     | 38%      | 43%      | 59%      | 60%      | 34%      | 46%       | 55%       | 55%       |
| x % of companies              | 17%      | 0%       | 0%       | 0%       | 62%      | 57%      | 41%      | 40%      | 66%      | 54%       | 45%       | 45%       |

**SOURCE : OWN RESEARCH**

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