CHAPTER 3

HOLISTIC RISK MANAGEMENT IN THE BANKING INDUSTRY

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SYNOPSIS

Holistic risk management as a management concept is discussed in general. The trends in holistic risk management in the banking industry are investigated. The evolution of holistic risk management in the developed countries and the various models are documented in detail.

The focus of this chapter is on achieving objective 2 and 3 as stated in section 1.3 of chapter one. A key consideration is that the banking industry worldwide as well as in South Africa exists in a highly volatile environment. Technological advances in IT and communications influences the future viability of the banking industry in general and South Africa in particular.

Inherent in the holistic risk management is the need to take cognisance of the fact that all the risks are interrelated and interconnected. Therefore, the need to manage all the risks holistically is of particular importance. An eight step holistic risk management framework is proposed. It is established that the various models to manage risk holistically also include the following categories: holistic risk analysis, holistic risk planning, holistic risk strategy, holistic risk review and communicate, holistic risk implementation planning, holistic risk motivation and control, holistic risk systems review of results and evaluation and plan modification.

The value of this chapter lays in exploring the concept of holistic risk management as a means of efficiently managing risk in the banking industry, gaining of an understanding of the critical success factors for the implementation of holistic risk management in the banking industry, the investigation of the application of holistic risk management in the banking industry and proposing a framework for holistic risk management in the banking industry

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3.1 INTRODUCTION

The primary problem addressed in this study is the relevance of holistic risk management processes in dealing with the intricacies of managing risks in the complex banking industry. Conventional management theory may no longer be appropriate within a changing banking environment of today and translates into a need to nurture a culture within banks that values a proactive and holistic manner in managing risks. In this respect holistic risk management (HRM) is a response to the growing need for a benchmark of the best practice for those who manage and regulate complex banking activities. It sets out a comprehensive framework, comprising eight-nine core principles, with which such banks can manage their risk and through which regulators can benchmark the adequacy of management practices operated at individual banks or organizations.

3.2 BACKGROUND OF HOLISTIC RISK MANAGEMENT

The amount of discussion, writing and resources devoted to the development of holistic risk management has multiplied dramatically since the 1999s. So has the number of chief risk officers appointed to implement holistic risk management programs at different banks. But what does holistic risk management - also known as enterprise-wide, or firm-wide, risk management and why is it better grounded than other "flavour-of-the-month" management fads that have come and gone in the past?

Holistic risk management is a concept about managing all the risks simultaneously. Holistic risk management is all about accountability, that is taking responsibility for their actions. People must be able to accept the results of their actions.

Lack of accountability, or the perception of it, is a good way for shareholders to lose faith in an institution's management, clearly a bad thing for the institution (Payne, 2000 : 174). One of the fastest ways for this to happen is for the institution to announce an unpleasant surprise, for example an extraordinary loss. Such volatility of earnings can be much more damaging in risk management of its impact on shareholder confidence than in its immediate effect on the bottom-line. And the effects extend beyond shareholders, that is to say, a lack of confidence on the part of other stakeholders, such as customers, employees and business partners, can be equally devastating in the management of the operating costs run by an institution. Retrospective crisis management is much more difficult and expensive than proactive risk management.

Consequently, the role of holistic risk management has changed since shareholders became key players in corporate management during the late 1980s. It has continued to evolve during the 1990s, as other stakeholders began to exert increasing influence, for example, the rise of the environmental and ethical lobbies and of "free agents" in the workplace. Holistic risk management increasingly addresses the management of uncertainty and the prevention of unpleasant surprises (Rogers, 2000 : 32-82).

holistic risk management, which added the key concepts of diversification, volatility and correlation to those of limit and default management, also had benefits in holistic risk management of business performance. Reducing the likelihood of default and managing the level of volatility means increasing stakeholder confidence, which translates into cheaper and more manageable transaction costs in a host of areas, ranging from supplier invoices to debt financing. It also makes it easier to manage the long-running conflict of interest between bondholders and shareholders - the so-called "agency problem".
Holistic risk management is defined by a number of authors the Federal Reserve Bank (2002 : 283), the Bank of England (2000 : 176), Kloman (2003 : 15), Lam (2003 : 142), Shimpi (2002 : 28), Zikmund (2005 : 91), Regester and Larkin (2005 : 350) all define holistic risk management as the mismanagement of scarce resources at the highest level such as failing to plan for the unforeseeable future. According to Lam (2003 : 19) holistic risk pertains to situations for which there

exists previous probability data useful in predicting future outcomes. Zikmund (2005 : 34) defines holistic risk management as an exposure to economic loss or gain of a bank.

3.3 THE EVOLUTION OF HOLISTIC RISK MANAGEMENT

Since the late 1990s, business trends suggest that risk management practices are mushrooming from a “fragmented approach” to an “all-embracing approach”. Ten years ago the emphasis was on managing various strategic business units as separate units such as strategic, economic, insurance, security, business, process, and culture as indicated in EXHIBIT 3:1. The process of integration illustrated this evolution process as described by (Risk Commission, 2002 : 66). Economic risk is now integrated with capital market risk, treasury risk, market risk, liquidity risk, analytics & modelling risk and credit risk as illustrated in EXHIBIT 3:1. Insurance on the other hand is bundled with property risk, casualty risk, liability risk, mult-line risk and other insurance product risk. Security risk is now integrated with physical & information, asset protection and recognisance risk. Business risk in integrated with compliance risk. Process risk now includes financial internal control risk, profit recovery risk, and internal audit. Culture is now bundled with corporate ethics and the dress code.

EXHIBIT: 3 : 1 THE EVOLUTION OF HOLISTIC RISK MANAGEMENT

Source: Adapted from The Risk Commission (2002 : 75)

However, the evolution of holistic risk management has integrated various processes into two main areas namely strategic and operational risk management which form the basis of this study.

3.3.1 Fundamentals of holistic risk management.

Holistic risk management according to Shimpi (2002 : 118) should not be thought of as a centralised corporate function - as risk management has traditionally been practiced, but rather, as a holistic approach that fully integrates risk management into a way that a bank conducts its business, as well as the way that it communicates to stakeholders. Holistic risk management is a two way system, that means it deals with how things are done inside the bank and how the communication with the outside world us done.

It's perhaps no surprise that the boundaries of a discipline as broad as holistic risk management are sometimes hard to make out. Holistic risk management shares common elements with some other management disciplines, such as change, six sigma, McKinsey's 7s model, economic value adding (EVA) and quality management, and its critics claim that it is a little more than reinvention of these put together (Schonfelt, 2000b : 36-48). There is some truth in this. Holistic risk management does borrow some of its techniques from knowledge management, process re-engineering and "six-sigma" quality standards among others.

Where it differs is in integrating these various factors, tying them to business performance, and taking account of extreme risks. That, however, is not very useful as a working definition. Different organisations will place different priorities on say accounting, operations, quality and change management and want to integrate them into business performance in different ways. According to Lam (2003 : 93) one useful starting point in coming up with a better definition is to say that holistic risk management is whatever the chief risk officer does. The definition that self-adjusts to fit every organisation and encompass whatever mixture of disciplines is necessary. But that then begs the question, who is the chief risk officer (CRO)? Not all organisations feel the need for a full-time (CRO) or want to create an explicit position for one in the senior management team. Many already have a head of risk management somewhat further down in the organisation. It might seem natural to have that person drive the holistic risk management process (Kloman, 2003 : 211).

However, as we'll see in the next section, it is critical that organisations elevate this person, identify or create a senior manager responsible for holistic risk management and not just because it provides a quick, company-specific starting point for a definition of the holistic risk management initiative. Risk management is likely to meet with more resistance than most management initiatives, and it is unlikely that the benefits of holistic risk management will be realized if it is not driven by a figure of real authority within the firm.

3.3.2 Holistic risk management trends

Emerging role of Chief Risk Officer – More and more major corporations have started appointing Chief Risk Officers (CRO). The role of CRO is expected to gain a foothold and become an indispensable position in the corporate structure of the bank. Holistic risk management as a tool for performance not conformance, organisations that have adopted this approach have gained noteworthy tangible benefits, such as growth in shareholder value, loss reduction, and earnings volatility, engendering a sentiment of confidence in risk management. Van Greuning and Bratanovic (2000 : 425-453) concurs with Kloman (2000 : 213) by saying that holistic risk management is becoming intrinsically beneficial to both financial and non-financial organisation, as seen evidently in the financial services sector holistic risk management is being embraced by wide range of industries spanning from automotive to property development. Holistic risk management is increasingly becoming a norm in modern day practices, therefore it is essential for businesses to realise the value it brings to the fore. One could speculate about how holistic risk management will transform over the next decade, but it does require a meticulous evaluation of the trends in technology, communication as well as in the financial industry. The remarkable plummeting costs in technology and information; the upsurge in capacity of trading in financial instruments on a global scale; and the mounting need to determine holistic risk management at all levels are all integrated factors underpinning the wave of the future for modern day organisations.

3.3.3 The new title of chief risk officer

There will in many cases already be an individual, or group, who ultimately heads up risk management at the executive level, even if they do not have day-to-day involvement. That might be the chief executive officer; the chief financial officer (in a financial services concern, for example); the chief information officer (in an intellectual property business); the chief operating officer (in a manufacturing business); or any combination of these roles and more. This person is well placed to act as the chief risk officer (CRO). One shortcut in identifying the CRO is to resort to a popular nickname: the "chief worry officer". At a prosaic level, the chief risk officer is whoever worries most about the organization, and holistic risk management is whatever he or she does about those worries. If the CRO is to do a good job, he or she will have to meet a number of basic requirements (Sutin, (2001 : 74). The first, and most basic, of these is that the CRO must know the business. This may seem obvious, but is actually overlooked surprisingly often. Clearly, a CRO needs to worry about things that might actually affect the business, not about irrelevant or inconsequential factors. Conversely, a CRO who does not know the business will probably not spot things that are really worth worrying about. Another key requirement is that the CRO must ensure that an organisation's activities remain in balance. Most obviously, a chief risk officer is charged with ensuring that a balance is struck between the rewards of activities and investments and that the risks of a portfolio are well balanced (i.e., well-diversified). But the CRO must also ensure that corporate decision-making is well balanced in a more general sense. There are two aspects to this. First, the company's risk-taking should not be set unilaterally by a single individual or group, even at the senior management level. Second, the organisation should make sure that decisions are made in a way that reflects its own performance benchmarks (Kloman, 2003 : 126).

The first step in meeting both of these conditions is to work out exactly what those performance benchmarks are, or what they should be. For example, is the bank looking for a short-tail holistic risk management surge in profits, or a sustained improvement in long-tail holistic risk management profitability? Is business volume more important than profit? Is customer satisfaction more important than volume? Having decided the answers to these kinds of questions, perhaps by constructing a "balanced scorecard" the bank has set a performance standard by which all activities and decisions can be judged. If this standard is well balanced, it becomes much more difficult for an individual or group to win excessive power over the organisation's risk-taking. In order to be recognised as successful compared with the performance standard, groups within the organisation will have to co-operate with each other, the diversification of goals built into the performance standard will lead to a diversification of the people and processes by which decisions are made. If the standard is also reflected in the compensation and incentives offered to the decision-makers, they would be much less motivated to diverge from it. That reduces the chance that people are either willing or able to take excessive, non-core risks (Kloman, 2003 : 128).

This is only likely to be true, however, if the decision-makers are sufficiently well informed about risk to make good decisions, feel able to discuss risk with others in the firm and are aware that non-compliance with either the firm's risk management principles will not be accepted. This is a third balance that the chief risk officer must maintain: between the "soft" aspects of holistic risk management such as risk education, communication and culture and the "hard" aspects of holistic risk management such as risk quantification, reporting, pricing and risk transfer. We'll see why the soft side is so important in the next section.

3.4 SUCCESS FACTORS FOR THE IMPLEMENTATION OF HOLISTIC RISK MANAGEMENT IN THE BANKING INDUSTRY

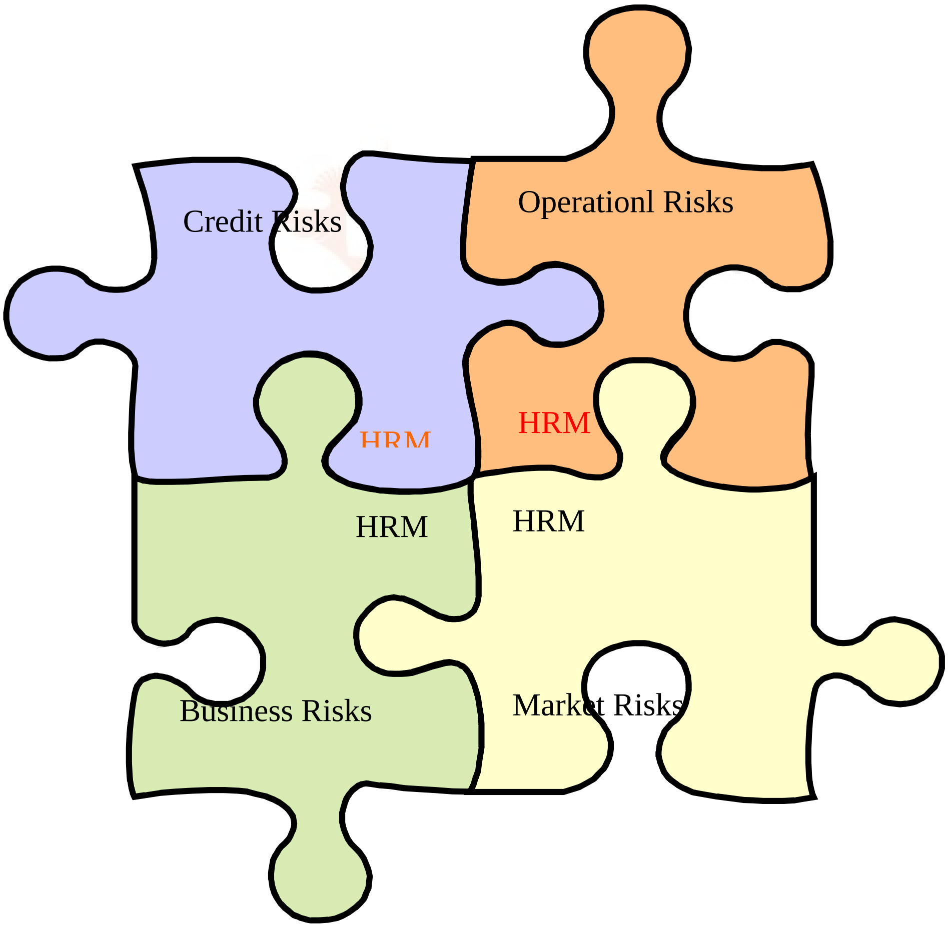
However, some pioneers have gone further, and begun to think about diversification across multiple lines of business: interest rate derivatives and retail lending, for example, or commodity trading and real-estate finance. This according to Vaughan (2001 : 64) recognises the relationships between the risks of each of these business lines and exploits whatever diversification benefits these relationships may bring. Exploiting the benefits of this approach, however, requires a different approach to risk management in general and holistic risk management in particular.

Holistic risk management (HRM), in which the various risk types that can affect a bank are considered holistically, rather than independently. Broadly speaking, there are two basic types of risk: strategic risk and operational risk. Each of these has a precise definition (sometimes more than one), which are explored in more detail in other pieces of the holistic risk management Jigsaw Framework. However, it can be more useful, when beginning to think about holistic risk management, to consider more general definitions such as strategic and operational.

3.4.1 Holistic risk management according to Lam

Lam (2003 : 58) believes that holistic risk management should be managed as depicted in the Jigsaw framework. In the middle he proposes that the bank should have an enterprise risk management framework (ERM). The ERM should in turn manage the various risk legs for example operational risk, credit risk, market risk, business risk and other related risks. This is illustrated in EXHIBIT 3.2.

EXHIBIT: 3 : 2: THE JIGSAW HOLISTIC RISK MANAGEMENT FRAMEWORK



Source: Adapted from Lam (2003 : 76)

These risks are somewhat analogous to the classical elements of earth, air, fire and water. Just as "earth" includes everything from rock to steel, so this definition of credit risk includes everything —from a supply chain failure to a debt going bad. And just as the classical elements can be combined to make up new substances - earth and water to make mud, for example - so these elemental risks can lead to form new ones. For example, the apparently minor operational risk of a slight time disjunction between settlement systems, or a temporary failure in one of the systems, can combine with credit risk exposure to create massive settlement risks. However, Lam (2003 : 216) does not talk about strategic and operational risks in isolation. His Jigsaw frameworks talks about the holistic risk management (HRM) in the middle and surrounded by strategic, operational, business, market, credit and whole range of other risks. He rightly states and gives provision for other types of risks to be added to his Jigsaw framework, but not strategic and operational in this order.

3.4.2 Holistic risk management process according to Lam

The objective of the discussion of the holistic risk management process is to provide some guidelines for the management of risk in the South African banking industry. Lam (2002 : 160) points out that there are three aspects to holistic risk management. Firstly, there is the strategy, which is concerned with the establishment of a clear direction for the bank and a means of getting there. Secondly, there should be excellence in the implementation of strategies in order to yield effective performance. Thirdly, there should be innovation to ensure that the strategies are improved and renewed. Various frameworks of holistic risk management processes already exist. While there are differences between them, many tend to follow the pattern described by (Lam, 2002 : 168). The holistic risk management process as described by Lam (2002 : 189) is of particular value to the management of holistic risk in the banking industry. EXHIBIT 3 : 2 illustrates the holistic risk management process according to (Lam, 2002 : 168).

In an attempt to develop a model to strategically manage holistic risk management, one needs to think out of the box. In other works, one must think like an inventor. According to Lam (2002 : 141) lack of accountability, or the perception of it, is a good way for shareholders to lose faith in an institution's management, clearly a bad thing for the institution. One of the fastest ways for this to happen is for the institution to announce an unpleasant surprise, an extraordinary loss, for example. Such volatility of earnings can be much more damaging in holistic risk management of its impact on shareholder confidence than in its immediate effect on the bottom line. And the effects extend beyond shareholders, a lack of confidence on the part of other stakeholders, such as customers, employees and business partners, can be equally devastating in holistic risk management of the operating costs run by an institution. Retrospective crisis management is much more difficult and expensive than prospective holistic risk management.

Consequently, the role of holistic risk management has changed since shareholders became key players in corporate management during the late 1980s. It has continued to evolve during the 1990s, as other stakeholders began to exert increasing influence: for example, the rise of the environmental and ethical lobbies and of "free agents" in the workplace. Holistic risk management increasingly addresses the management of uncertainty and the prevention of unpleasant surprises in the organization (Lam, 2002 : 112).

The key tool used to achieve these goals is holistic risk management diversification, relying on pleasant surprises in one area to balance unpleasant surprises elsewhere. The effect of risk diversification is that the net risk of a group (or portfolio) of individual risks is less volatile, and lower, than the simple sum of all those risks. Organisations have began to concentrate on managing the risks of portfolios of business, providers of risk protection, for their parts, began to develop products that matched these portfolio risks.

3.4.3 Holistic risk management strategies according to Lam

Lam (2003 : 204) proposes the seven step strategy for holistic risk management as follows:

● Strategy 1 Know your business

It is common knowledge that managers are obligated to know their businesses. However, it should be mandatory that everybody in the organization share this obligation. According to Lam (2003 : 117), it is important that all employees understand how their individual accountabilities could affect the risks of the organization and how their functions and responsibilities relate to others within the company. This increases risk awareness at an enterprise wide level, which is highly encouraged in holistic risk management.

● Strategy 2 Establish checks and balances

It is of vital importance, in any financial institution, that power and authority is devolved so that there is not one individual or a group of individuals who wield excessive power. Lam (2003 : 18-19) cites the collapse of Barings Bank as a classical example where a lack of adequate checks and balances led to the "rogue trader" Nick Leeson, to conceal mounting losses for over a year with negative consequences to the bank when the losses did eventually erupt. By nature people like power but too much of it without built in checks and balances is bound to cause corruption.

● Strategy 3 Set limits and boundaries

"Just as business strategies and product plans tell a business where to go, risk limits and boundaries tell a business where and when to stop", (Lam, 2003 :129). With a carefully orchestrated and executed holistic risk management policy together with clearly defined checks and balances, it becomes easy for organizations to know their limits and boundaries that will help in a big way to minimize exposures.

● Strategy 4 Keep your eye on the cash

Cash is the single-most important asset to any organization hence the contention by Lam (2003 : 20) that it is important to make sure that adequate measures are designed and implemented for the proper management of cash positions and cash flow. Improper cash flow management led to the collapse of industrial giants such as Enron and Kidder Peabody to mention just but two. Cash is the life blood of any organization. Without cash no organization can function.

● Strategy 5 Use the right yardsticks

Measures used by different organizations to track and manage individual performance levels are a key driver to human behaviour. To this end, Lam (2003 : 20-21) advocates for the use of a "balanced scorecard" in the establishment of performance measures that are geared toward quality, customer satisfaction and internal processes as a management tool to improve the bottom line and proactive risk management.

● Strategy 6 Pay for the performance you want

Compensation is a sticky issue in management but it is imperative to management that this issue is critically evaluated nonetheless. It is important to establish whether compensation and incentives are producing the desired levels of performance and rewards to the organization. According to Lam (2003 : 21) compensation and incentives is probably the key driver of human behaviour and as such, it has a significant potential to impact, negatively or positively, on the organization in general and risk management in particular.

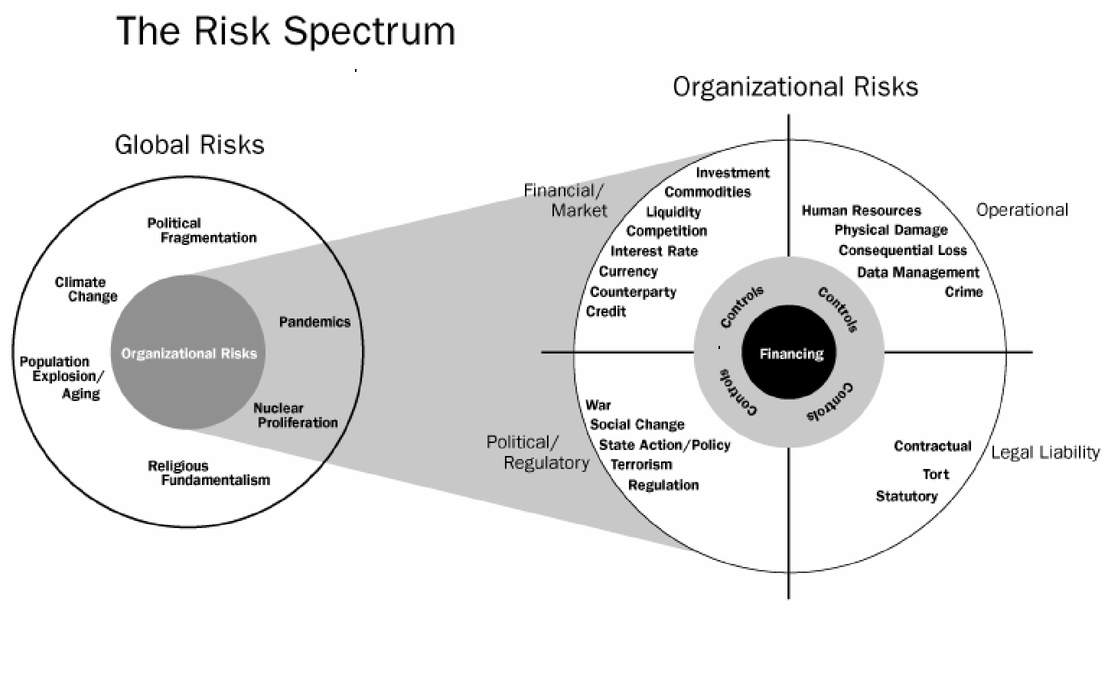
● Strategy 7 Balance the yin and the yang

It is of absolute importance to any given organization to strike a balance between the “hard” and “soft” aspects of risk in order to have a holistic appreciation of all different risks to which an organization is exposed. According to Lam (2003 : 22) the hard side comprises of processes, systems and reporting while the soft side focuses on the people, skills, cultures, values, training and incentives. Balancing the “hard” and the “soft” aspects of risk management is critical to the application of holistic risk management.

3.4.4 Holistic risk management according to Kloman

Kloman (2003 : 171) proposes that holistic risk management should be managed as depicted in the below EXHIBIT 3.3. Kloman (2003 : 172) maintains that all the risks emanate from global risks. He believes that the global risks ranging from political fragmentation, pandemics, nuclear proliferation, religious fundamentalism, population explosion, and climate change are the drivers of the organisational risks the banking industry faces today.

EXHIBIT: 3 : 3 HOLISTIC RISK SPECTRUM FRAMEWORK



Source: Adapted from Kloman (2003 : 173)

Financial / market risks according to Kloman (2003 : 172) includes credit, counterpart, investment, competition, liquidity, interest rate, market, and currency, while insurance risks include all that has to be covered. Quality assurance includes operations, capital adequacy, and legal. Securities includes bonds, guarantees, collateral safety and includes the safety of both clients and staff. Public policy includes all policies, strategies, missions and visions of the bank.

Holistic risk management operations according to Kloman (2003 : 175) includes human resources, physical damage, consequential loss, data management, and crime. Legal risks, political / regulatory risks, financial risks, political risks, and operational risks form the outer layer of his spectrum of risk. The inner layer according to Kloman (2003 : 172) is the control element and then the centre is the bank / the organization.

All the organisational risks are specific and are driven by other forces for the purpose of this study, known as global risks. Global risks for the purpose of this research are climate change, political fragmentation, pandemics, nuclear proliferation, religious fundamentalism and population explosion / aging.

However, Kloman (2003 : 180) does not differentiate strategic from operational risks. He, however, proposes that another term for strategic risk, namely global risks. His idea of operational risks includes human resources, physical damage, consequential loss, data management and crime. The bigger picture or strategic risk according to Kloman (2003 : 181) is global risks such as political fragmentation risk, pandemic risk, nuclear proliferation risk, religious fundamentalism risk, population explosion / aging risk and climate change risk. According to Kloman (2003 : 193) organizational risks or operational risk are those risks the organisation faces on a day to day basis, namely financial risks, regulatory risks, legal liability risks, and people risks as depicted in the EXHIBIT 3.4 below:

EXHIBIT: 3 : 4 HOLISTIC RISK SPECTRUM "B"

Global Risks / Strategic Risks	Organisational Risk/Operational Risks
Political Fragmentation	Financial / Markets
Pandemics	Pure Operational
Nuclear Proliferation	Legal Liability
Religious Fundamentalisim	Political / Regulatory
Population Explosion / Aging	
Climate Change	

Source: Adapted from Kloman (2003 : 179)

According to Kloman (2003 : 125) traditional holistic risk management was developed and administered by one or more small, centralised teams, working closely with a few areas of the business, such as trading desks or underwriting teams, where risk was considered to be of paramount importance. The team would work to implement the three stages that make up the risk management process-awareness, measurement and control - for the particular risks involved, drawing what information was necessary from the business line. This approach does not work under holistic risk management, whose guiding principle is that risk is ubiquitous and exists at all levels of an organisation, and therefore needs to be managed accordingly. In fact, holistic risk management can only address the huge volume and diversity of risks involved if all of the employees of a firm are enlisted into the cause of risk management.

While there may still be a relatively small team of risk specialists in the holistic risk management framework, its role will be more one of risk education and consultancy. Rather than managing risks themselves, the members of this team will help the organization's business units and staff functions to recognise their risks and establish processes for managing them. This is not a one-off activity. Although it is possible to document the risks affecting an activity and the procedures and techniques for managing them, both the procedures for gathering the information and the information itself need to be updated continually to reflect changes in the way that the activity is conducted. Many notorious risk management disasters have occurred at least partially because of organisational failures to recognise the new risks engendered by change. Barings, for example, failed to adapt the "clubby" London-centred control framework of its merchant banking days to the demands of trading in highly leveraged derivative instruments through international outposts (Kloman, 2003 : 128).

Kloman (2003 : 130) proposes that the first step in managing holistic risk is to ensure that managers and employees think about risk when making decisions. This is mostly a matter of education and training - both of which have historically been sorely lacking in the risk management arena. As we saw in the first section, the emphasis has historically been on the management of returns, with risk controlled (if at all) by capping it at some more or less arbitrary level. The result is that many employees have never really needed to grapple with risk, and thus have a very poor understanding of it. Holistic risk management is still seen by many as an activity that does little more than frustrate efforts to build businesses, and is associated with the embarrassment of having to own up to mistakes.

Overcoming this perception Kloman (2003 : 131) proposes some evangelism. Holistic risk management needs to be built up as something that has tangible benefits and helps, rather than hinders business. Staff need to be convinced that holistic risk management has an important and proactive role to play in ensuring that their businesses will not "blow up"; that proper holistic risk management thinking can facilitate business activities, not just veto them; and that striking a balance between risk and return can help to ensure long-tail holistic risk management profitability rather than unsustainable short-tail holistic risk management gain. Only if people buy into these ideas will they take the initiative in identifying, managing and communicating risks.

One of the best ways to encourage such buy-in is for senior management to endorse risk management and to enforce compliance. This is one of the reasons that can be useful to appoint a chief risk officer, or at least identify a de facto chief risk officer. Tying compensation to a risk-adjusted benchmark is one way of sending a clear signal to the organisation. Asking pointed questions about risk is another. It is critically important that no one is allowed to ignore the rules of good risk management including senior managers themselves. One of the fastest ways to understand holistic risk management is for the organization to initiate it at organizational level (Kloman, 2003 : 132). One last "soft" element of holistic risk management is communication. Just as many employees do not have much understanding of risk and risk management, so they may struggle to express what they do know, particularly if they are emerging from a silo-based environment and have to express risks to other groups who may use radically different language and definitions. One valuable exercise is to establish a "common language of risk", perhaps narrowing down the elemental risks described above into a list of definitions of the risks specific to a given organization. That way, the organisation can be sure that when its people talk about risk, they are talking about the same thing (Kloman, 2003 : 173). Kloman (2003 : 210) concurs with Lam (2003 : 290) that the biggest problem in the application of holistic risk management is the communication of what risk is all about in laymen’s language.

3.4.5 Holistic risk management control according to Kloman

Assuming that the value of risk management has been accepted by the organisation, the next step is to identify and assess the risks associated with some new or changed activity. We talked in the previous section about the importance of empowering and requiring people to think and talk about risk. The first application of this empowerment of holistic risk management is to try to assess which risks seem manageable and which do not. Given how diverse the risks covered by the holistic risk management program can be, there is no single easy formula by which this kind of risk assessment can be conducted. However, there are a number of factors that can be considered in qualitative holistic risk management in order to evaluate risks: i.e. exposure, volatility, probability, severity, timeliness, correlation and capital (Kloman, 2003 :169).

These criteria will give some indication of whether the risk seems like one that the organisation can manage, or whether it is best left alone. If it seems like the risk that the organisation can handle, the business and risk managers can move on to the next step in the risk management process. But before that risk management controls must be in place.

3.4.6 Holistic risk management reporting according to Kloman.

It's been said that you cannot manage what you cannot measure. This is certainly true in risk, which is largely measured in holistic risk management of probabilities - which human beings are very bad at estimating. People tend to be very poor judges of risk, and intuition is often a very poor basis for risk management, although experience and judgment do have their parts to play, particularly in market and credit risk. That makes it particularly important to have measures of risk that can be reported to key decision-makers in a clear, unambiguous way. One such measure would be the summary information about the size and number of losses actually suffered by an organisation, along with any trends in the type of events that produced them, or how losses compare with business volumes or revenues. Incidents that do not result in financial loss, but are nonetheless considered serious - policy violation, systems failures or fraud, for example - can also be reported. Clearly, quantitative measures such as value at risk and risk adjusted return on capital (RAROC) are also useful for market and credit risks. It is usually possible to come up with simple measures of other, softer risks such as customer dissatisfaction, the number of complaints, for example and even if these cannot be used for integrated risk management, they are still useful for holistic risk management purposes. Bearing in mind the balance of “soft” and “hard” risk management, it is also useful to have qualitative assessments of risks. These should include descriptions of the most important current and emerging risks, problems with the risk management infrastructure and general concerns about risk (Kloman, (2003 : 132).

Reports should not try to be exhaustively comprehensive, as long as they accurately reflect changes in the nature of the organisation's business environment and risk exposures. Screening criteria should be used to ensure that senior management are only alerted to specific incidents if they are serious enough to merit attention. The development of such criteria, and of procedures, the escalation of communication over a certain risk or incident, is likely to be a substantial part of the work of the risk management team. Once risks have been identified and some form of measurement introduced, the risk management theory can be translated into risk management action using various control mechanisms.

3.4.7 Holistic risk management process according to Kloman

Holistic risk management as described by Kloman (2004 : 129) relates to it's costs, the costs of building the information technology infrastructure to support it, and the costs imposed by regulation on the movement of capital and funds within a diversified organisation. (The obstacle is financial conditions, weak banks are likely to have more pressing concerns than the implementation of holistic risk management system). Both the information and regulatory costs are dropping. Network technologies make the aggregation and processing of data easier than in the past, while regulators have indicated their willingness to reduce the barriers to enterprise-wide-risk, capital and liquidity management. As commentators have noted, enterprise-wide risk / holistic risk management is an area in which the supervisors and the supervised are in unusually close accord, albeit for different reasons. What's more, advances in risk management tend to foster financial engineering that reduces or eliminates regulatory costs. As these processes continue, holistic risk management is likely to become achievable by more organisations than at present.

But there is another, less explicit, cost to holistic risk management. This is the opportunity cost of having risk ultimately owned by a enterprise-wide risk function headed by the chief risk officer, rather than by the managers of individual business lines. A firm that simply pulled all responsibility for risk management back to the core would lose the value that business managers add through their entrepreneurial efforts and that value may be considerable if, as is generally the case, the line managers are more expert in the risks and returns of their particular business than the centralised risk managers (Kloman, 2003 : 176). In making the case for holistic risk management and following it through, there are two major challenges that risk managers have to face. The first is that numbers alone will probably not do, in the absence of a full-blown holistic risk methodology. Just as VaR is commonly supplemented by extra tools such as scenario analysis and position limits, so risk-adjusted returns and economic capital estimates must be stressed by softer indicators, that is customer satisfaction scores and peer benchmarking, for example. The development of these indicators needs to go hand-in-hand with the quantitative work (Kloman, 2003 : 179).

The second and potentially more difficult issue is to overcome the general image of the risk manager as an obstacle to business. If the risk manager is seen, as is often the case, as no more than a developer of risk analytics, it is unlikely he or she will be able to persuade the organization that a partially complete holistic risk measurement solution is a good foundation for a holistic risk management solution. In this case, the entrepreneurial value added by the business managers will seem more compelling and holistic risk management will remain decentralised and that would probably be the right decision, even if the cost / benefit analysis weren't conducted in quite such clinical holistic risk management (Kloman, 2003 : 180).

If risk managers are to promote holistic risk management successfully within their organisations, they will need to demonstrate that they can either bring their own entrepreneurial drive to the table, or that they can genuinely facilitate the entrepreneurial spirit of the institution's business managers. Would be holistic risk managers can't just talk the talk, they must also walk the walk and be seen to be doing so.

3.4.8 The ten commandments of holistic risk management according to Kloman

The ten commandment of holistic risk management, falls into categories or themes, which according to Kloman (2003 : 214-230), include:

●**Honor thy yacht:** Proper respect for your organization, its products and services, its people, its suppliers and customers, and its communities - in a word, its stakeholders is essential for sound holistic risk management.

●**Thou shalt not tempt Mother Nature:** A thoughtful risk manager recognizes the external forces at work on the organization and is not too rash. Just as it is foolish to varnish before rain, it is inappropriate to locate a facility in a flood plain or earthquake-prone area. If you deliberately challenge Mother Nature, she will nail you sooner or later.

●**Be neat in thy work:** Sloppy work takes less time but the results are all too evident. Take time to create and maintain clear and coherent records. Don't rush your work because of the unrealistic deadlines of others.

●**Understand thy chosen finish:** Study carefully all possible responses to risk, ranging from avoidance and mitigation to various forms of financing. Assure yourself of the best "finish" or combination of "finishes."

●**Do thy product research:** Know the pros and cons of services and service providers, such as risk assessments, actuarial analyses, technical controls, claims services, and insurance contracts, enabling you to use them confidently and know what to expect from each one.

●**Know thy hardwoods:** Make sure that you know your own organization as well or better than anyone else. Understand its people, its products, services, and facilities. Don't compromise by accepting the opinions and views of others: go forth and see for yourself - often.

●**Neglect not thy detailing:** When reports, analyses, papers, and contracts pertaining to risk management are prepared, make sure that you read and understand them. Don't depend on the analyses of others. Study risk assessments and read insurance contracts, tedious as this may be.

●**Keep thee safe and alive:** Self-preservation is important, in terms of both physical safety and health and the function of risk management within the organization. Practice the risk controls you preach. Stress the importance of risk and loss control.

●**Keep the preventive maintenance creed:** Pre-emptive action is the ounce that easily outweighs the pound of cure required later. Early action generally prevents paying more for later losses.

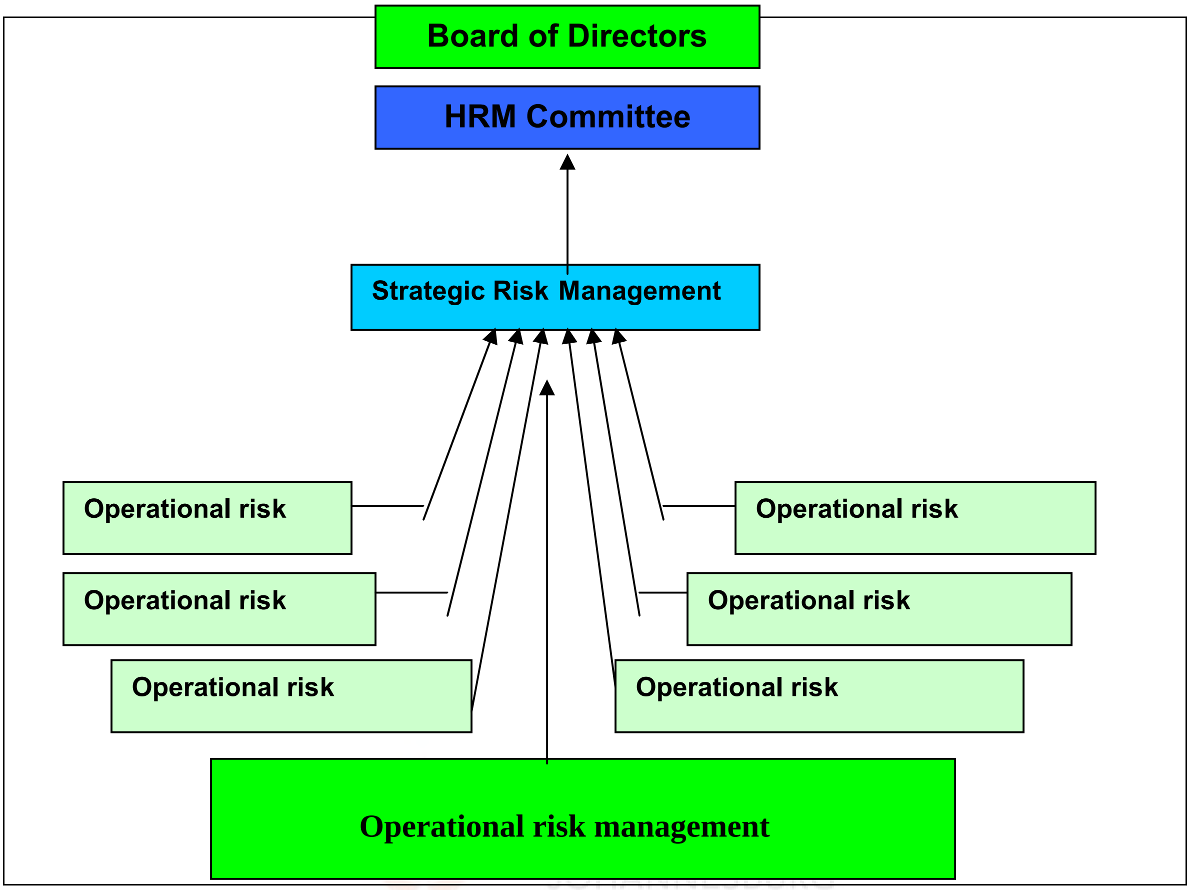
●**Thou shalt love working on thy yacht:** Some years ago, Tom Peters noted that many leaders of highly successful companies shared a distinguishing characteristic: their "love of product." If you don't enjoy risk management work, seek another line. Your lack of passion will show up quickly, like a dull finish from sloppy varnishing.

Above all, be patient. Changes take time because large organizations are hard to move. Entrenched bureaucracies, common to government, corporations, and services, protect their own systems, but persistent pressure will, over time, produce favourable results.

3.4.9 Strategic and operational holistic risk management according to Chibayambuya

Chibayambuya (2005 : 195) proposes that a strategic and operational holistic risk framework is a possible answer to the current debate on holistic risk management. He furthermore proposes that the strategic and operational holistic risk framework should include the board of directors right at the top supported by an holistic risk management committee. The holistic risk management committee should be supported by strategic risk management unit and the strategic risk management unit should be supported by the various operational risk managers right at the shop floor. The strategic and operational holistic risk management framework is illustrated in EXHIBIT 3:6. Chibayambuya (2005 : 373) proposes that holistic risk management should have two main legs namely strategic risk and operational risk. Strategic risk should be those risks that will have a devastating impact on the bank if the worst case scenario happens. Operational risk should be the risk that could cause the bank to suffer a loss in the short term. However, there is always a grey area in terms of strategic and operational risks. These two will always overlap.

EXHIBIT: 3 : 5 STRATEGIC AND OPERATIONAL HOLISTIC RISK MANAGEMENT FRAMEWORK



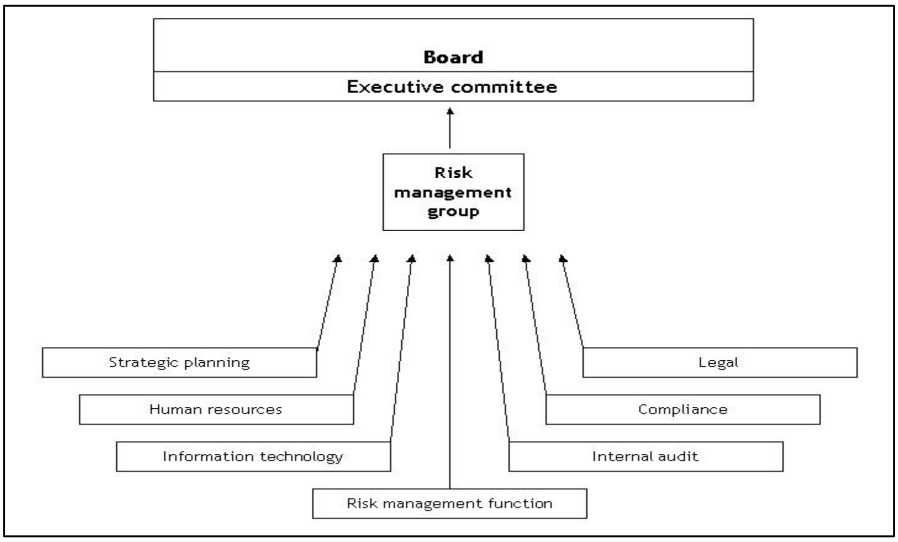
Source: Chibayambuya (2005 : 373)

3.4.10 Strategic versus operational holistic risk management according to Shimpi

Holistic Strategic risk is "anchored at the highest level," and it must first address the strategic issues of the CEO and the Board. Holistic operational risk is that kind of risk that does not need the board and the CEO to sanctions as indicated in EXHIBIT 3.6 below. However, the two are intertwined or interwoven and often cross each others paths. These two can be resembled to the keyboard of the piano. One cannot play the white keys alone. You have to play both the black and the white keys in order to get a good sound or else you will end up with discord.

As illustrated in EXHIBIT: 3 : 6 the overall strategy of holistic risk management (i.e. market, credit and liquidity risk; operational risk; legal risk; regulatory risk; and human resources risk) is strengthened by an integrated framework of responsibilities and tasks driven from board level down to operational levels. In addition it also signifies that the board itself is the ultimate responsible entity, supported by its appointed executive committee, dedicated holistic risk management group and business units (Chibayambuya, 2005 : 249). Lam (2003 : 285) concurs with Chibayambuya (2005 : 249) that the board has the ultimate responsibility for risk management.

EXHIBIT: 3 : 6 THE ROLE OF HOLISTIC RISK MANAGEMENT



Source: Regester and Larkin (2005 : 249)

3.4.11 The role of holistic risk management according to Regester and Larkin

A number of authors such as Kloman (2003 : 193), Shimpi (2002 : 93), Lam (2003 : 167), Regester and Larkin (2005 : 279) are of the opinion that the board of directors is irrevocably responsible for the assurance of shareholder's value, it is therefore accountable for any financial loss or reduction in shareholders value that may arise due to poor application of holistic risk management controls. Furthermore, the board is expected to recognise all the risks to which the bank is exposed to and to ensure that the mandatory ethnicity, practices and systems are in place, as it cannot afford to expose the bank's risk tolerance when allocating capital to its business units.

Management responsibility is under normal circumstances delegated by the board to the executive committee. The executive committee, in turn, is supported by a holistic risk management group (or equivalent) whose primary role is to delineate the bank's holistic risk management policies and to ensure that appropriate procedures, controls and investment systems are in place. The holistic risk management group must also be impartial to dealing and related functions (Regester and Larkin, 2005:139).

3.4.12 Holistic risk management function according to Regester and Larkin

Regester and Larkin (2005 : 374) concurs with Lam (2003 : 272) that the holistic risk management function involves the day-to-day monitoring, measuring and evaluation of risk and should be managed by an appointed head of risk who is a member of the holistic risk management group. In addition, the holistic risk management function also implement the risk policies associated with market, credit and liquidity risks arising from trading activities. The holistic risk management function should possess adequate knowledge in financial products including derivatives and must operate independently from risk generating business units and trading area.

3.4.13 Holistic risk management measurement and reporting according to Regester and Larkin

When dealing with holistic risk management, it is imperative that risk exposures are aggregated and monitored, hence, the need for risk measurement, reporting and control. Its purpose is to quantify market, credit and liquidity risk and to ensure a mechanism exist for evaluation and adjustment of risk within an agreed set of boundaries. Due to the nature of the holistic risk management evaluation process, no single type of measure covers all eventualities and satisfies all management requirements, therefore, a number of complimentary measures should also be used; viz.: A likelihood based measure, like 'value at risk' to measure the aggregated risk consistently across the bank's business units as well as a basis for capital allocation. Risk sensitivity measures, controls and analyses derivative products at a more comprehensive level. A stress testing measures, and assesses market value of a bank's portfolios should irregular circumstances arise as a result of abnormal market moves. Market, credit and liquidity risk measures used collectively could provide the derivation for calculating capital at risk at all levels of a bank. Aggregate limits must be defined to periodically assess market, credit and liquidity risk. These limits should be directly coupled to a bank's holistic risk management strategy and should correlate to the overall capital at risk levels allocated to each business unit. Whilst aggregate limits are somehow specific, non-specific risk, such as the use of a new product, should be factored into the risk measurement, reporting and control in the ambit of holistic risk management. All the above measures and reporting provide the regulation framework for ensuring that levels of risk persevere within approved boundaries set out by the board, executive committee and risk management function Kloman (2000 : 193), Shimpi (2002 : 93), Lam (2003 : 167), and Regester and Larkin (2005 : 279).

3.4.14 Holistic risk management operations according to Regester and Larkin

Shimpi (2002 : 121) concurs with Regester and Larkin (2005 : 285) that holistic risk management operations control plays a vital part in a bank's ability to avert risk, insomuch that the majority of crises faced by banks, which are active in the capital markets, are consequential from operational control problems rather than measurement problems. In holistic risk management operations consistently requires robust controls in front, middle and back office systems. This often means deploying a resilient mechanism unaffected by changes in the transaction process. A number of crucial controls exist for evaluation products, and profit and loss accounting, viz.: Distinct valuation policies and procedures, which include special procedures for illiquid products and large positions. Impartial price verification and valuation. Exception management and signoff procedures. Transaction processing should include: Audit trail capabilities and independent settlement. Unconstrained banking procedures. Authorisations for cash and security movements (independent of trading).

3.4.15 Holistic risk management systems according to Shimpi

Holistic risk management systems primarily focus on the provision of key-critical information at any given time to ensure success of the entire holistic risk management function. Equally important to this function is the accuracy and level of involvement by key stakeholders to ensure that the design of such systems incorporate all the elements deemed necessary. For example, a diverse range of functionality should include: market and credit risk analysis systems, asset and liability management, performance measurement and regulatory reporting, also trading and trade processing. Finally, all the rules pertaining to systems management are applicable, i.e. appropriate security controls; data reconciliation; backup and recovery procedures; and contingency procedures in cases of disaster recovery (Shimpi, 2002 : 168).

According to the (World Bank 2004 : 381) technology costs have reduced significantly over the past number of years. For example in nineteen sixties, data storage costs were around $100,000 per megabyte. Today, equivalently, it costs around $0.10. By 2020, it will probably be less than $0, 01. Data transmission decreased even more radically. In the seventies $10,000 would enable the user to send one megabyte of data from New York to Tokyo. Today it costs a mere $0, 50. By 2020, it is expected to be less than 1 US cent. In the history of commerce no other industry has ever encountered this deflationary process, and this trend is likely to continue well into the future. The impact of cost reduction in technology to the application of holistic risk management is unimaginative. Business will continuously be done on the internet, therefore, the number of computer hackers is going to increase hence the number of viruses on the world wide web. Computer programming pundits will use the internet as their playground and banks on the other hand will use the internet as a cheap delivery channel for their products. During the past few years we have witnessed internet viruses such as the “mellisa” and “I love you” viruses which have caused damages worth billions of rands in terms of lost data and protection software. This trend will continue hence the need for holistic risk management strategies in the world financial industry in general and the South African banking industry in particular.

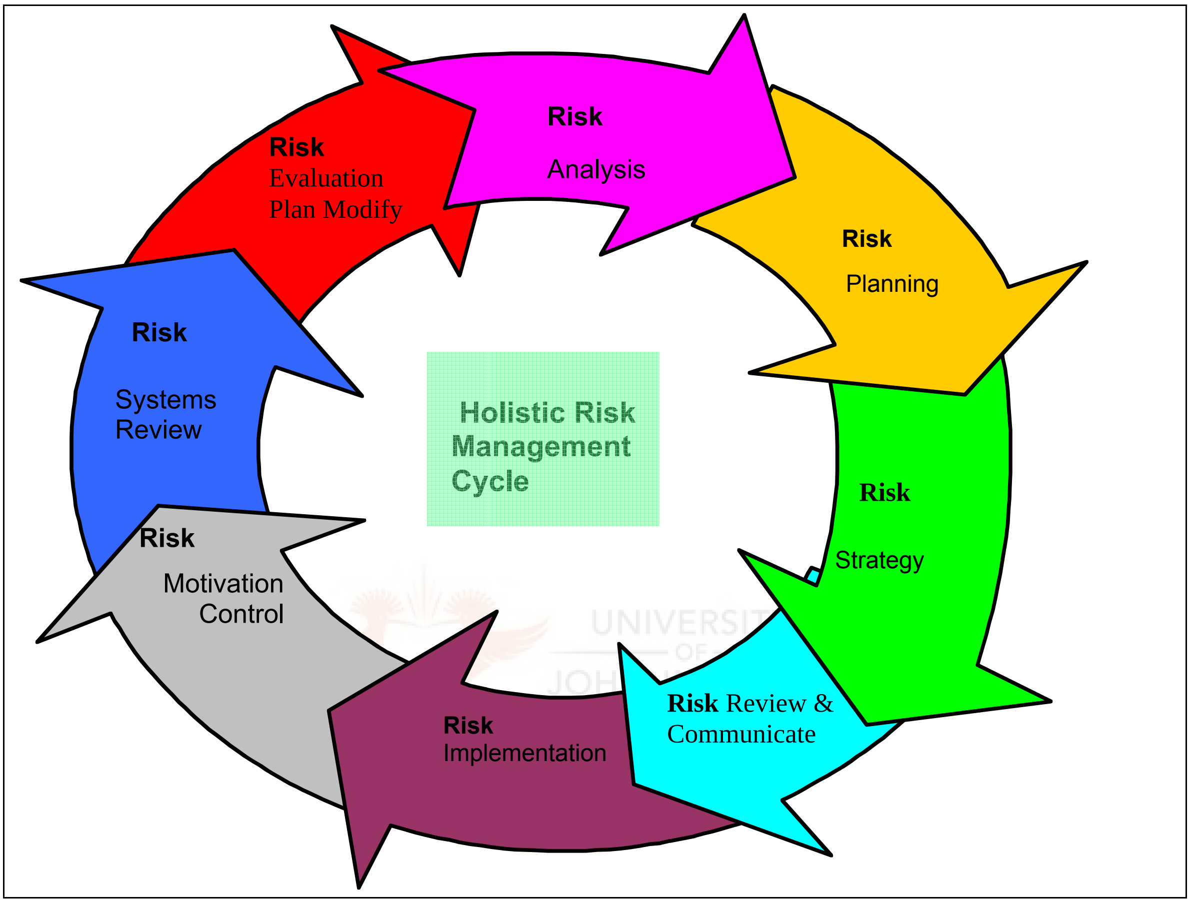
●Virtualisation of Technology

According to the Financial Mail (2001 : 11), accessibility to data sources from any location at any given point in time is increasingly becoming a way of life. Employers and employees are able to make informed business decisions based on tools and techniques that are now made available at the click of a mouse button. Defining appropriate business solutions are now made easier by way of integrated services aligned to defined business objectives. Techniques are enabled to perform benefit matrices, value statements, implementation and recurring cost estimations. Holistic risk management assessment possibilities made easier via reliable data sources to ensure success of the associated investment. In addition, facilitation of economic value determination is easy quantifiable due to the availability of technology. The plummeting cost of technology as well as the increased demand for businesses to integrate customer needs into their portfolio has led to revolutionary changes within the Information Technology sector. According to the Financial Mail (2001 : 4), customer integration poses the biggest implications to modern industries. The company has to identify the end customer, and then establish what value is being delivered. The pressure is on businesses to respond to this challenge in order to deliver goods and services effectively and efficiently. The plummeting costs in technology have shaped the second major trend, exceptional intensifying in trading activity. For example, in the sixties, the daily trading value in foreign exchange transactions was worth a few $1 billion US; today, it is over $1 trillion. Banks, for example, partnered with companies like Microsoft and IBM to incorporate business solutions in their product offerings. This feature enables suppliers to understand the intensity of the levels of trading and magnitude of transaction growth (Financial Mail, 2001 : 12).

3.5 TOWARDS A HOLISTIC RISK MANAGEMENT FRAMEWORK

A number of authors Bernstein (1998); Kloman (2000); Aldred (2001); Shimpi (2002); Lam (2003); Morrison (2004); Regester and Larkin (2005) have established various frameworks to manage holistic risk management. They all concur that the ideal holistic risk management framework must include the following categories: (1) holistic risk analysis, (2) holistic risk planning, (3) holistic risk strategy, (4) holistic risk review and communicate, (5) holistic risk implementation planning, (6) holistic risk motivation and control, (7) holistic risk systems review of results and (8) evaluation and plan modification. An illustration of how these categories fit into the proposed holistic risk management process is given in EXHIBIT 3:7.

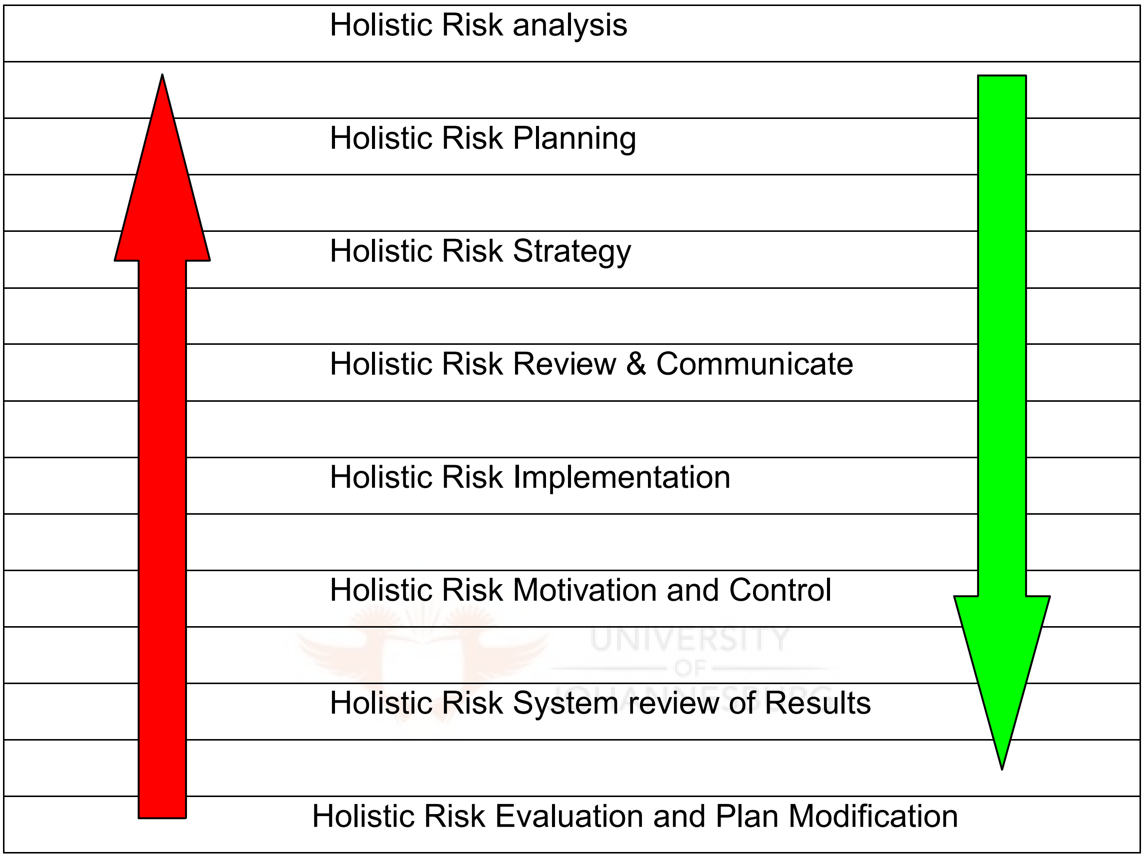
EXHIBIT: 3 : 7 Proposed holistic risk management framework / Cycle



Source: Own design

In analysing EXHIBIT 3:7 a framework to holistically manage risk can be established. This framework is a strategic/operational holistic risk management framework with specific reference to the South African banking industry. A simplified representation of a proposed framework to the above mentioned framework is given in EXHIBIT 3:8. An explanation of the various legs of the proposed framework is given in Section 3.5.1.2 to 3.5.1.9. It's fitting to call the framework the holistic risk management cycle as indicated in the middle of the framework. Each leg of the holistic risk management cycle (HRMC) represents a separate process in the management of risk in the South African banking industry.

EXHIBIT: 3 : 8 A PROPOSED SIMPLIFIED FRAMEWORK FOR HRM IN THE SOUTH AFRICAN BANKING INDUSTRY



Source: Own design

The proposed steps in the holistic risk management process as illustrated in EXHIBIT 3:7 and 3:8 will be discussed in the following paragraphs. However, it must be emphasised that the implementation of this particular holistic risk management framework starts from any point on the holistic risk management cycle. One can start with the review of current systems, or review of results from the previous period, or planning process, or motivation and control. For the purpose of this study let's start from the analysis of current position regarding holistic risk management.

3.5.1 Analysis: analysis of current position regarding holistic risk management

When Bernstein (1998 : 111); Kloman (2000 : 81); Aldred (2001 : 142); Shimpi (2002 : 92); Lam (2003 : 121); Morrison (2004 : 85); Regester and Larkin (2005 : 216) speak of analysis of the current position they mean everything outside and inside a bank that is capable of affecting the survival or success of the bank. Everything from global macro-trends to new stakeholder developments can be included in the external and internal environment. Our competitors are part of our industry which itself is part of the external environment. The analysis of current position should include the competitor, the industry, the external environment, the internal environment, the people and the various processes within a bank.

Aldred (2001 : 201); Shimpi (2002 : 66); Lam (2003 : 81); Morrison (2004 : 39); and Regester and Larkin (2005 : 215) agree that the first step in the analysis of the current position regarding holistic risk management will be to establish how the bank defines risk. Risk may be defined broadly as the art of managing the uncertainties of business. The way the bank defines risk will influence the whole holistic risk management process, as each definition of risk emphasises different aspects, which requires different planning, implementation and control. After risk is defined, management should analyse opportunities available as well as possible threats. Market and consumer research should be used to do this. Management should be aware of the holistic risk management abilities of their major competitors as this may indicate further possible opportunities and threats. An analysis of past risk failures can sometimes indicate opportunities and threats. However, management should be aware of the strengths and weaknesses of the bank in order to effectively pursue the opportunities available and successfully overcome the threats.

It is also important that management should know whether there are reasonably good processes in the bank to foster holistic risk management effectively. After the strengths and weaknesses, opportunities and threats analysis, management will be in a position to establish specific holistic risk management objectives. Regardless of the form analysis might take, the identification of trends and elements is important for a bank as it can prepare itself for what might be threats or opportunities. Shimpi (2002 : 183) goes a step further by proposing that a pest model should be used to analyse the current position of the bank.

Pest is a model used to scan trends and developments in four areas:

- ●Political / legal trends such as those found in legislations, treaties, political stability, or the lack of it.
- ●Economic trends such as those found in economic development, levels of interests and other related trends.
- ●Socio-cultural trends such as those found in demography, differences in income, ethical groups, changes in life-style, levels of training and other related trends.
- ●Technological trends. National and supranational investment, technological change, technological maturity and other related trends.

Different models can be used to act on trends once they have been identified. Trends are commonly evaluated by means of a risk map, in which a trend's probability is plotted against the magnitude of the effect that it is likely to have on the bank.

Regester and Larkin (2005 : 204) proposes that a gap analysis is ideal for analysing the current position of the bank. Gap analysis is a name generally given to identifying, specifying and taking action on the gap between a situation as it exists and the situation as we would like it to be. In risk management, a gap might be the one between satisfaction as it stands and the bank's goal for satisfaction or there may be a gap between a bank's competences now and the competences it needs to unfurl certain strategies. A process for carrying out a gap analysis is described in the following six steps:

- ●Define the area for analysis (for example internal efficiency, competence, or losses.
- ●Describe the existing situation. Supplement this with metrics if necessary.
- ●Describe the desired situation. Set up measurable goals if this can be done.
- ●Specify how the desired situation differs from the present one.
- ●Decide on measures to close the gap.
- ●Follow up and where necessary carry out corrective action.

A common approach in gap analysis is to set up a gap matrix. The next section looks at the planning leg of holistic risk management cycle.

3.5.2 Planning: planning of holistic risk management

A bank without planning is like a sailboat minus its rudder. Without planning, banks are subject to the winds of environmental change, yet have little means to take advantages of the prevailing currents in determining their own direction. Planning is a management function that involves setting goals and deciding how best to achieve them. Planning provides a basis for the other major functions of holistic risk management, that is, organising, leading, and controlling by charting the course and providing the steering mechanism (Aldred, 2001 : 17-24).

Strategic plans according to Lam (2003 : 81) are detailed action steps mapped out to reach strategic goals. These plans address such issues as how to respond to changing conditions, how to allocate resources, and what actions should be taken to create a unified and powerful organisationwide effect ultimately aimed at strategic goals. Strategic plans are generally developed by top management in consultation with the board and with middle management. They typically cover a relatively long time horizon, often extending 3 to 5 years or more into the future. However holistic risk management strategy must be reviewed annually. Comprehensive statements of strategic holistic risk management plans in bank often include the mission and goals because these form the basis for strategic action plans.

Tactical plans are the means charted to support implementation of the strategic plans and achievement of tactical goals. These plans tend to focus on intermediate time frames, usually 1 to 3 years. Generally, tactical plans are more specific and concrete than strategic plans. Tactical plans outline the major steps that particular holistic risk management departments will take to reach their tactical goals. In developing tactical plans, risk managers may consider a number of possibilities before settling on a final plan (the plan is, of course, subject to change, should things not progress as expected) Tactical plans are important to the success of strategic plans. Operational plans are the means devised to support implementation of tactical plans and achievement of operational goals. These plans generally consider time frames of less than 1 year, such as a few months, weeks, or even days. Unless operational goals are achieved in the bank, tactical and strategic plans will not be successful and goals at those levels will not be achieved (Shimpi, 2002 : 28). The next section deals with the strategic leg of the holistic risk management cycle.

3.5.3 Strategies: formulation of holistic risk management strategies

Before any holistic risk management strategy can be formulated, it is important to establish the importance of holistic risk management in the overall objective of the bank. Management should first establish how strongly holistic risk management features in the bank's mission. A strong emphasis on holistic risk management in the bank's mission would indicate the importance of well-developed risk strategies in order to achieve the bank's overall objective.
This section reviews in more detail the different explanations of how strategies develop. However, it is important to stress that it is most unlikely that any one of the explanations will account entirely for the processes at work in the banking industry, strategy formulation needs to be understood in terms of a mix of processes (Lam, 2003 : 63).

Regester and Larkin (2005 : 255) warn that strategic choices available to the banking industry are severely limited. The environment is such a dominant influence that most banks, save the very large ones are unable to influence their operating environments, they merely buffer from, or respond to, changes in that environment. Such strategy development as exists occurs through a process similar to natural selection. Variations occur within the banking processes, structures, and systems, which may or may not be deliberate. These variations are more or less relevant to the environmental pressures the bank faces, and therefore result in one bank performing better or worse, than another. Those banks that perform better than others may then be able to retain, duplicate or reproduce such positive variations, and so improve their standing in relation to other banks.

Strategic planning is perhaps the most traditional view of how strategic decisions are made in the banking industry. The view here is that the elements of planning do represent a useful approach to thinking the issues of holistic risk management strategy. However, while there is some evidence that the formalised pursuit of such a systematised approach results in banks performing better than others, such evidence must be tentative because it is difficult to isolate planning as a dominant or determining factor in performance. It is probably more useful to conceive of the elements within the planning approach as useful means of analysis and thinking about complex strategic problems; their formalisation into some sort of planning sequence does not, in itself, guarantee more effective holistic risk management strategies (Kloman, 2003 : 162). The next section looks at the review and communication leg of the holistic risk management cycle.

3.5.4 Review: review and communication of holistic risk management strategies

Bernstein (1998 : 73); Kloman (2000 : 19); Aldred (2001 : 68); Shimpi (2002 : 53); Lam (2003 : 119); Morrison (2004 : 69); Regester and Larkin (2005 : 197) lament that it is of little use if holistic risk management is implemented without reviewing whether it was successful or not. Management should evaluate holistic risk management activities, especially those that are successful. Such an evaluation can provide valuable information for future holistic risk management activities. There are various methods to measure holistic risk management. One way is to establish the increase in turnover generated by the effective holistic risk management. Controlling holistic risk management activities can take place before it is actually implemented to prevent possible problems. This is however very difficult due to the uncertainty involved in creating “newness”. Controlling during and after implementation will thus be more valuable. Communication is the exchange of messages between people for the purpose of achieving common meanings. Unless meanings are shared, managers find it extremely difficult to influence others. For holistic risk management to be effective, it must be communicated to the majority of people working in the bank. A holistic risk management strategy not communicated is as good as no strategy at all. Risk managers spend most of their time communicating in one form or another, Studies show that they tend to prefer oral over written communication, largely because oral communication is usually more informal and timely.

A bank should actively work out systems for tracking holistic risk management performance on specific projects. It should also be able to understand progress or delays in holistic risk management in a systematic, effective and objective manner the Federal Reserve Bank (2000 : 283), the Bank of England (2000 : 176), Kloman (2003 : 15), Lam (2003 : 142), Shimpi (2002 : 28), Zikmund (2005 : 91), Regester and Larkin (2005 : 350) all agree that review and communication of holistic risk management is crucial to the banking industry regardless of the size of the bank. The implementation of holistic risk management will be discussed in the next paragraph.

3.5.5 Implementation: implementation of holistic risk management strategies

Holistic risk management strategic analysis and choices are of little value to the bank unless the strategies are capable of being implemented. Holistic risk management strategic change does not take place simply because it is considered to be desirable, it takes place if it can be made to work. Bernstein (1998 : 210), the Federal Reserve Bank (2000 : 283), the Bank of England (2000 : 176), Kloman (2003 : 15), Lam (2003 : 142), Shimpi (2002 : 28), Zikmund (2005 : 91), Regester and Larkin (2005 : 350) all propose that the implementation of holistic risk management in the banking industry should take the following steps:

- Goals: Sensitivity to changes in key personnel, top management perception, and impact of the strategy.
- Roles: Team building abilities, networking skills, across the bank, and tolerance of ambiguity.
- Communication: Communication skills to transmit effectively to colleagues and subordinates, interpersonal skills across the bank, personal enthusiasm, and commitment.
- Negotiation: Selling plans and ideas to others, by creating a desirable and challenging the vision of the future.
- Managing up: Political awareness, in identifying potential coalitions and balancing conflicting goals and perceptions, influencing skills, helicopter perspective, to stand back from the immediate project and take a broader view of priorities.

This step is important in the management of holistic risk. If the holistic risk management is not implemented all the efforts of creating the risk management unit will be worthless. Some banks might be weaker in the implementation of holistic risk management, which in effect will hamper future development.

Lam (2002 : 195) concurs with Bernstein (1998 : 210) and further propose that to ensure that implementation of holistic risk management ideas is successful, management can take certain measures. Firstly, there should be clear holistic risk management guidelines, specific objectives and a sharp focus on all holistic risk activities. Secondly management can use incentives to motivate employees to be more innovative in their approach to holistic risk management. Thirdly, adequate training should be provided in the management holistic risk management activities. Fourthly, senior management in the bank should devote sufficient time to the management of risk. Neglecting this activity will lead to unsuccessful holistic risk management. Lastly, it will be important to keep management's interest and commitment to specific holistic risk management projects.

During implementation of holistic risk management ideas, market and consumer research is again important. As market and consumer research has possibly indicated opportunities during the analysis stage, it should indicate whether these opportunities could be realised during the implementation stage. The next leg in the holistic risk management cycle is motivation and control.

3.5.6 Motivation: motivation and control of holistic risk management strategies

The Bank of England (2000 : 176), Kloman (2003 : 15), Lam (2003 : 142), Shimpi (2002 : 28), Zikmund (2005 : 91), Regester and Larkin (2005 : 350) all define motivation as what makes an individual act and behave in a certain way. It is a combination of intellectual, physiological and psychological processes that determines; in a given situation, how vigorously we act and what direction our energy is channelled. Among the most important motivators according to Shimpi (2002 : 94) and Regester and Larkin (2005 : 146) are:

● Status

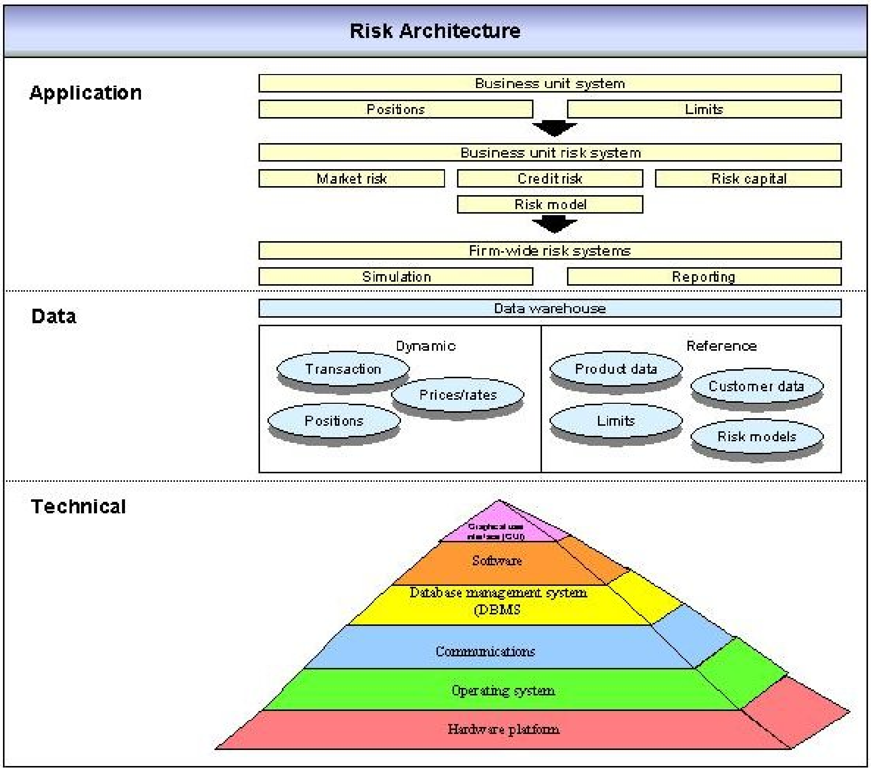
● Personal growth and advancement
● Recognition
● Responsibility
● Challenges and stimulation at work
● Personal development and self-actualization

A key ingredient in the risk management system is the control factor. Often managers have too narrow a view of what constitutes management control in the strategic context. It is useful to think of control systems in two broad categories. Systems of information and measurement: This category would include financial systems such as budgets and variance analysis. However, other organisational objectives may need to be measured and controlled in different ways. Banks are attempting to develop a wider range of performance indicators which relate to the purposes identified in their strategic plan. Some of these matters lend themselves to quantified measurement, such as cost targets or staff turnover. Others have to be dealt with more subjectively, such as some aspects of quality, ethical standards or competitive standing. It is important to recognise that measurement of strategic performance will almost certainly require a mixture of measures, only some of which will be genuinely quantifiable. Systems, which regulate the behaviour of people rather than simply measuring the end result of their efforts. Rewards systems are the most important example of this type of system Aldred (2001 : 72).The next section deals with the systems review leg of the holistic risk management cycle.

3.5.7 Systems review: systems review of holistic risk management current systems

As illustrated in EXHIBIT 3:9 below, holistic risk architecture provides the business framework for the risk specific functions of the bank, while the data architecture serves as the interface between the risk systems and the risk functions of the bank and the technical architecture provides a platform for the environment on which the risk systems could operate (Lam, 2002 : 155), and (Shimpi, 2002 : 191).

EXHIBIT: 3 : 9 HOLISTIC RISK SYSTEMS ARCHITECTURE



Source: Adapted from Lam (2002 : 155), and Shimpi (2002 : 191).

● Application Architecture

From a holistic risk management perspective Aldred (2001 : 163) suggest that holistic risk architecture should at the very least include the following components: Identification of functions that is a comprehensive list of current and future risk management functions incorporated into the application architecture. Location of Functions: that is a depicted list of the type and level of the central risk processing required by the bank. Frequency of information delivered: that is including scheduled and impromptu type risk reports. Data storage: that is a specification of the structure, including the location and detail. Data integrity and ownership: that is ensuring the completeness and accuracy of all risk information. Interoperability: that is ensured compatibility between the bank's IT strategy and the defined risk system. Backup, recovery and contingency planning, ensuring business continuation (with agreed acceptable levels of disruption) should the bank encounter service outages. System and model security, to ensure the bank's data integrity and confidentiality. The manner in which data architecture is incorporated in the holistic risk management context essentially comprises of the data storage requirements and the data integrity and ownership. The technical architecture fundamentally encompasses the design and construction of the desired risk systems the bank should incorporate, but should acknowledge existing IT systems as well as the bank's known IT strategy. Data storage, in a holistic risk management context deals with the frequency and layout of the risk information required. As a result, the most efficient storage method should be adopted, allowing the required access with the least amount of redundancy of data (Shimpi, 2002 : 94).

As depicted in EXHIBIT 3:9, the following are evident: Transaction data, that is the detailed trade information, pertaining to counterpart, product type, trade date, nominal amounts, cash flow details, currency rates, settlements, etc. Position data: that is a summary of the transaction data, holistic by product type, counterpart, etc. Price / rate data, that is a summary of trading data pertaining to market prices and rates. Product data, that is a summary of specific instruments and product types, including security issues, equities, etc. Customer data, that is a summary relating to specific counter parties, inclusive of credit grades, netting agreements, etc. Limit data, that is the detailed information on position, counterparty, and capital at risk limits. Risk models, that is a recommended outline for maintaining and supporting of risk models to ensure consistency.

- Data Integrity and Ownership

The reconciliation of data within a holistic risk management system should be handled at two levels, i.e.: -
Locally, that is the process of ensuring completeness and accuracy of the data at the source level. Centrally, that is ensuring the data integrity against other central management information systems, i.e. to ensure information consistency at a holistic level. Ensuring accuracy of the data with a holistic risk management system requires specific ownership responsibilities for maintaining and ensuring freshness of content of the data. There are two adopted approaches, viz.: -

Distributed ownership, that is allocating specific ownership of the data to any given cross-functional area within the bank. For example, allocating the customer relationship data to the sales function within the organisation. Central ownership, that is ensuring administrative functions to be performed at a central point. As previously stated, the technical architecture ensures risk system compatibility across the bank's IT infrastructure and by design, should be in line with the bank's stated IT strategy. Exhibited in figure 3.10, the following should be noted: Hardware platform, that is ensuring compatibility between the various platforms that exist within the bank's IT architecture.

Operating system, that is the need to implement an open environment, ensuring maximum throughput. Communications infrastructure, that is ensuring the 'middleware', i.e. the data transmission vehicle between systems to transfer critical data. Database management systems (DBMS), that is the requirement to implement a relational, hierarchical, or object oriented system. Software, that is ensuring that the risk management system software is adequately specified to the bank's requirements. Graphical user interface (GUI), that is the front-end systems deployed to allow for user access, simple, yet sophisticated to prevent fraudulent activities. The last leg in the holistic risk management is the evaluation and plan modification.

3.5.8 Evaluation: evaluation and plan modification

There is a variety of financial tests that can be applied to evaluate holistic risk management projects. Evaluation according to the Federal Reserve Bank (2000 : 183), the Bank of England (2000 : 76), Kloman (2001 : 315), Lam (2003 : 242), Shimpi (2002 : 128), Zikmund (2005 : 111), Regester and Larkin (2005 : 220) can use measures such as return on income, risk adjusted return on risk capital, economic value adding, and value at risk, or discounted cash flow techniques to establish if the bank is adding or destroying value. It is however important that there is a system to evaluate holistic risk management. If a risk management project is unsuccessful, the persons responsible for it should not be penalised for the results. It they are penalised, this might dampen future innovative activities. After this last step in the management of holistic risk management cycle, all the information obtained during the process will be used and the whole process will start again (see EXHIBIT 3:8). The framework must be reviewed at least once every year in order to take into account the ever changing environment and other technological issues.

3.6 CONCLUSION

In this chapter a theoretical discussion on holistic risk management was investigated in great detail. Various frameworks were investigated such as the Evolution of holistic risk management, the Jigsaw framework, the Spectrum, the Strategic and Operational frameworks. Finance can be problematic and might inhibit the application of the holistic risk management cycle. The growing bank might be faced with activities such as control, responsibility, and tolerance of failure in the application of holistic risk management cycle. The development of new ideas is vitally important to ensure efficiency. The mature bank has many advantages in pursuing holistic risk management framework / cycle. However, the mature bank might have a fixed culture that might inhibit the application of holistic risk management.

Some of the most important aspects included in these frameworks were summarised and the following aspects proved to be of particular importance: analysis, formulation, strategy, planning, implementation, review of results and evaluation.

A proposed framework of holistic risk management was developed. The following steps were included in the framework:

- Analysis of the current position regarding holistic risk management
- Formulation of holistic risk management strategies
- Systems review
- Establishment of a written plan for holistic risk management
- Implementation of holistic risk management strategies
- Motivation and control of holistic risk management
- Review of results and communication
- Evaluation and plan modification

The framework developed to manage holistic risk management will be used to evaluate the management of holistic risk in the South African banking industry.

In the next chapter the methods used to obtain information from the South African banks will be outlined.